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The first international study into the characteristics and statistical effectiveness of treatment for Indigenous and First Nations People who have sexually offended: A meta-analysis and survey of routine practice

James Finney
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The First International Study into the Characteristics
and Statistical Effectiveness of Treatment for
Indigenous and First Nations People Who Have
Sexually Offended: A Meta-Analysis and Survey of
Routine Practice

James L. Finney

For the award of Doctor of Philosophy (PhD)

Discipline of Psychology, Counselling and Criminology

School of Arts and Humanities

Edith Cowan University

Acknowledgement of Countries

Before beginning this thesis, I want to first pay my respects to the Noongar people, who are the traditional custodians of the land upon where this thesis was completed. I pay my respects to the Noongar Elders, past, present and emerging, and embrace their culture, wisdom and knowledge. I also acknowledge that this land was never ceded. I acknowledge my gratitude that we share this land today, my sorrow for some of the costs of that sharing and my hope and belief that we can move to place of equity, justice and partnership together.

I want to also acknowledge and pay my respects to the traditional custodians of where this PhD has investigated. In New Zealand, I acknowledge the Tangata Whenua, the Māori people, who have a deep connection to the land, sea and sky. In Canada, I recognise the diverse Indigenous peoples who have looked after the land, including First Nations, Métis and Inuit people. Finally, recognise the First Nations people of America who have their own rich cultures and traditions.

I am grateful to have conducted this research and I recognise the importance of respecting and acknowledging the ongoing connection of Indigenous and First Nations people with their traditional territories. As a criminology researcher, I acknowledge that it is essential we understand issues affecting Indigenous and First Nations communities, work towards addressing these issues side-by-side in consultation with Indigenous and First Nations communities and stakeholders and work on further decolonising criminology research practices.

With this acknowledgement, I am grateful to present my doctoral thesis entitled ‘The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People Who Have Sexually Offended: A Meta-Analysis and Survey of Routine Practice’. It is with hope that these findings contribute positively to the establishment of best-practice treatment

approaches for Indigenous people here in Australia. Furthermore, I hope these findings contribute to the advancement of knowledge internationally.

This thesis discusses offending and the over-representation of Indigenous and First Nations people in the criminal justice system. However, it is imperative that we remember both that although Indigenous and First Nations people are over-represented in the criminal justice system, the vast majority have never offended.

Abstract

Psycho-criminological literature has continued to examine post-treatment recidivism outcomes homogeneously for people who have sexually offended. Because results indicate clear differences between Indigenous and non-Indigenous people who have sexually offended, this project set out to understand the characteristics and effectiveness of treatment for Indigenous and First Nations people from four jurisdictions: Australia, New Zealand, Canada and the United States. A strategic three study strategy was implemented and resulted in a systematic narrative synthesis, meta-analysis and survey of sexual offender treatment organisations in Australia. The systematic review used a comprehensive and scientifically rigorous approach to identify studies ($k = 14$) that were critically appraised through an extensive data extraction process to report on demographic, treatment and recidivism data. Novel findings in relation to the characteristics of treatment for Indigenous people and the respective recidivism outcomes were provided. Over half of programs reported using a blended approach to treatment that included Western and culturally relevant practices, with the remaining studies taking a purely Westernised approach.

The meta-analysis built on the systematic narrative review by statistically calculating the effectiveness of treatment for Indigenous and First Nations people from studies that contained a comparison group ($k = 7$). Using odds ratios and a random-effects model, findings suggest that although treatment was effective for Indigenous and First Nations people, it was most effective when programs utilised treatment that was of cultural relevance. Given there is limited published research on treatment outcomes for Indigenous and First Nations people, the final study overcame this barrier by directly surveying treatment providers in Australia ($N = 12$). This provided a foundation of knowledge and mapped out current practices in the field of treatment for Aboriginal and Torres Strait Islander people who had sexually offended and received treatment in Australia. Key insights into treatment practices were provided,

including the development and theoretical foundations of treatment, current approaches, evaluation efforts and issues concerning the implementation of treatment for Aboriginal and Torres Strait Islander people. Although organisations implemented culturally relevant treatment approaches, it was more common to see Western therapeutic interventions at the forefront of practice. There was a lack of Aboriginal and Torres Strait Islander-specific risk and needs assessment tools, suggesting a lack of adherence to the principles of risk, need and responsivity among these organisations.

Overall, results from all studies indicated that more research, stronger methodological approaches and clearer adherence to the principles of risk, need and responsivity were required before more definitive conclusions can be made. There are clear challenges faced by researchers and program facilitators to ensure programs are of a high calibre so that Indigenous and First Nations people achieve positive outcomes of reduced recidivism. Therefore, the thesis concludes with 21 recommendations to ensure the field continues to develop scholarly knowledge on best-practice approaches and methods of delivering treatment to Indigenous and First Nations people.

Copyright and Access Declaration

I certify that this thesis does not, to the best of my knowledge and belief:

- i. incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education;
- ii. contain any material previously published or written by another person except where due reference is made in the text of this thesis;
- iii. contain any defamatory material.

Signature:



Date: 17th March 2025

Acknowledgements

Erin

To my beautiful wife. This thesis is dedicated to you, for whom I would not have been able to undertake this work without you. We met at 19 and 20 years of age when I had just started my first year of university. Nine years later and we are finishing this journey together – with our three beautiful boys – what a ride it has been. You have been my biggest supporter, and I will be both forever grateful and in debt to you. You stayed at home and raised the boys whilst I chased my professional dreams. You sacrificed becoming a young professional yourself so I could. And in all of this, you never failed to be by my side and continue to push me to succeed. It is the reason I fell in love with you. I hope I have made you proud and one day the boys are proud of their dad too.

I love you always.

Silas, Saul & Jax

Silas, as I am writing this you are developing into the most beautiful boy. You are extremely intelligent, kind, generous and empathic towards everyone you meet. You are a great soccer player and have the best left foot I have ever seen – I am very excited to be coaching you and your team this year. You give everything a go and that is all I could ever ask of you. Your mum and I had you when I was in my second year of university, and I always wanted to do everything I could to make you proud. However, it is you that make me proud each and every day. I cannot wait to see you flourish in life and take on every challenge thrown in your direction. We will be with you every step of the way.

Saul, what can I say. You must be the most kind-hearted soul – yet cheekiest person I have encountered. And I love it. You have started school this year and are excelling at soccer. Just like Silas, I love that you have a go at everything and are just here for a good time. You

keep your mum and I on our toes, every single day, and we would not change that for the world. You are such a beautiful little man with a heart of gold. With that, you will travel so far in life. We are excited to watch you grow and be here to share the ride with you.

Jax, our sweet-sweet little man that melts everyone's heart. You have just started talking and stringing words together and are already so smart, yet cheeky, like your two older brothers. You may be close for the world record of saying 'mammy' – but we would not change that for the world. You idolise your two brothers, following them around, and giving everything a go just as they do. You will go so far in life with your kind soul and sweet heart. Your mum and I love watching you grow and sneaking into our bed each night for cuddles. We cannot wait to see you grow and take on the world with your brothers – we will be there with you every step of the way.

Thank you Erin, Silas, Saul and Jax for being with me every step of the way.

I love you all so much – the Finney Five.

Natalie, Suzanne & Braden

Natalie, Suzanne and Braden – thank you for your guidance over the past three years. You have continued to push me to strive big with my thesis and I am so thankful for your knowledge, supervision and support over these years. More importantly, I am thankful for your friendship. While others may talk about the dread of completing a PhD, particularly when approaching submission time, I have had a contrasting experience. Although challenging at times, I have thoroughly enjoyed these years and the outcome which is now my thesis. Thank you for everything you have done and sharing the journey of completing a PhD.

Positionality Statement

I am a non-Indigenous man, born and currently living in metropolitan Perth, Western Australia. I am the father of three young boys (6, 4, and 1) and am married to my wife, Erin Finney. My lived experience as a non-Indigenous person from an urban environment shapes how I view and engage with the world, and I acknowledge that this influences how I conduct and interpret research.

I completed a Bachelor's degree in Criminology and Justice at Edith Cowan University and, driven by a belief in evidence-based policy and practice, pursued a Master of Criminal Justice by Research. To ensure my work had practical impact, I undertook industry-based research with the Western Australian Department of Justice, focusing on young people who have sexually offended. This led to the first systematic review of treatment programs for this cohort across Australia and New Zealand.

As is common in systematic reviews, I identified more gaps than answers—one of the most significant being the lack of information on outcomes for young Indigenous people post-treatment. This recognition motivated me to pursue a PhD to help address this gap.

Throughout this process, I have been conscious of my cultural standpoint and the limitations of my perspective. I acknowledge that as a non-Indigenous researcher examining matters affecting Indigenous communities, I have a responsibility to approach this work with humility, respect, and openness to guidance.

Professor Hill, a Nyungar (Wardandi) man from the south-west of Western Australia and the Deputy Vice-Chancellor (Students, Equity and Indigenous), has been involved in this research from its inception. He has provided invaluable insight and cultural guidance that I do not possess. His ongoing involvement has helped to ensure the research is approached in a culturally respectful and informed manner.

This thesis is written with an awareness of the ethical responsibilities inherent in research with and about Indigenous peoples, and a commitment to producing work that contributes meaningfully to the field.

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List of Acronyms

ABS	Australian Bureau of Statistics
AIM-3	Assessment, Intervention and Moving On 3
AUC	area under the curve
CBT	cognitive behavioural therapy
CI	confidence interval
CSOM	Center for Sex Offender Management
ERASOR	Estimate of Risk Adolescent Sex Offender Recidivism
FBI	Federal Bureau of Investigation
FBMC	Forensic Behavioural Management Clinic
GYFS	Griffith Youth Forensic Service
HCR-20	Historical, Clinical and Risk Management 20
J-SOAP	Juvenile Sex Offender Assessment Protocol
MMAT	Mixed Methods Appraisal Tool
MST	multi-systemic therapy
NIBRS	National Incident-Based Reporting System
PCL-R	Psychopathy Checklist Revised (Hare)
PRISMA	Preferred Items for Systematic Reviews and Meta-Analyses
RCT	randomised control trial
RRASOR	Rapid Risk Assessment of Sexual Offense Recidivism
RSVP	Risk for Sexual Violence Protocol
SMS	Scientific Methods Scale (Maryland)
SOTP	Sex Offender Treatment Program
SPSS	Statistical Package for the Social Sciences
US	United States of America

VRS-SO Violence Risk Scale Sexual Offence

Chapter 1: Introduction

Aboriginal and Torres Strait Islander people have inhabited the lands of Australia for over 65,000 years, with more recent research indicating that date to be closer to 75,000 years (Bradshaw et al., 2021; Clarkson et al., 2017). During this time, Aboriginal and Torres Strait Islander people maintained a rich culture, were the holders of many unique languages, possessed knowledge systems and beliefs, held a deep connection to land, water and the sky, and possessed invaluable traditional knowledge for the sustainable management of natural resources and cultural methods of maintaining law and order (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2020). However, the colonisation of Australia in 1788 and subsequent introduction of white colonial policies resulted in the persecution of Aboriginal and Torres Strait Islander people, violence and their displacement, social and economic marginalisation and cultural disruption. A significant consequence of these practices has been the historical and intergenerational trauma for Aboriginal and Torres Strait Islander people. Moreover, white colonial policies, enacted during the formation of the Australian colonies and eventual nation, have resulted in the unjust over-representation of Indigenous Australians in almost all aspects of the criminal justice system (Australian Bureau of Statistics [ABS], 2020, 2021; Australian Law Reform Commission, 2018; Select Committee on Regional and Remote Indigenous Communities [SCRRIC], 2010). At present, although Aboriginal and Torres Strait Islander people comprise 27% of the Australian prison population, Aboriginal and Torres Strait Islander communities account for approximately 3% of the Australian general population (Australian Law Reform Commission, 2018; United Nations Association of Australia, 2021).

In addition to over-representation in prison system, Aboriginal and Torres Strait Islander people are more likely to be charged with reoffending post-prison sentence when compared with non-Indigenous Australians (Llyod et al., 2015; SCRRIC, 2010; Willis, 2008).

It is, therefore, well evidenced that the Australian criminal justice system does not meet the needs of many Aboriginal and Torres Strait Islander people, particularly in the area of rehabilitation (Cunneen & Porter, 2017; Cunneen & Tauri, 2019; Day, 2003; Johnston et al., 2019; Shepherd et al., 2016). This is inadequate given that the creation and delivery of effective rehabilitation programs to Aboriginal and Torres Strait Islander people who have offended is one way that this over-representation can be addressed in Australia.

Aboriginal and Torres Strait Islander people are over-represented as both victims and perpetrators of violent crimes, which also include sexual offences (ABS, 2019, 2022, 2023; Australian Institute of Health and Welfare [AIHW], 2020, 2023). Although official statistics from police, corrections and victimisation surveys document the rate of sexual offending by Aboriginal and Torres Strait Islander people and non-Indigenous Australians, scholarly research suggests these information sources may misrepresent or not capture the extent of sexual offending in remote communities (N. Taylor et al., 2007). There are several barriers to reporting sexual assault in Aboriginal and Torres Strait Islander communities, which include community interpretations of violent behaviours, a lack of culturally appropriate services, language differences and a lack of trust in police (AIHW, 2020). Sexual violence is, therefore, reported to have reached a crisis level in many Aboriginal and Torres Strait Islander communities in Australia (Australian Institute of Family Studies, n.d.; AIHW, 2020; Taylor & Putt, 2007). Although these offences are less common than other offending behaviours among Aboriginal and Torres Strait Islander people (e.g., illicit substance use, burglary, stealing; ABS, 2023), they inflict considerable physical and psychological harm and cost to victims and their families, the community and the criminal justice system. Given the anger and hurt these offences cause, offering treatment to people who have sexually offended is one method to ensure future offending does not occur. It is, therefore, imperative to identify effective

interventions and understand the specific components that make such interventions successful.

Aboriginal and Torres Strait Islander people represent some of the oldest cultural groups in the world and consist of over 600 different cultures and groups dispersed over 7.7 million km² of land (Allard et al., 2016). Aboriginal and Torres Strait Islander people are, therefore, not homogeneous with non-Indigenous Australians and should be presented with culturally relevant treatment (Gee et al., 2014). However, sexual offender treatment for Aboriginal and Torres Strait Islander people accords with Western interventions and the ‘what works?’ principles (Day, 2003). To understand what works, evaluations are generally conducted using scientific, positivistic methodologies. Using these methods assumes that what is considered effective for one culture will be universally valid and generalisable to other cultures (Dudgeon & Pickett, 2000)—this generalisability is implicit in the phrasing of ‘what works?’ as opposed to ‘what works for whom?’ (Day, 2003). The current research, therefore, aims to understand the characteristics, variables and effectiveness of treatment for Indigenous and First Nations people who have sexually offended. My earlier research (i.e., my Master’s thesis), which investigated the characteristics and effectiveness of treatment for young people who had sexually offended in Australia and New Zealand, was compromised by limited information and ineffective evaluation methods in studies systematically located (Finney, 2021; Finney et al., 2024). The current study addresses those limitations and expands on previous research to gain additional studies for a larger and more in-depth review of the literature. This was achieved by investigating four major Anglo-settler-colonial jurisdictions: Australia, New Zealand, Canada and the United States (US).

These four jurisdictions were purposely selected because of the similarities associated with each Indigenous and First Nations population. Although it is acknowledged that there are cultural and historical differences between the Indigenous and First Nations people of each

country, there are also similarities among the histories of these countries. The four countries are ‘settler-colonial’ societies with similar histories (Cornell, 2005; Voaklander et al., 2020; Wolfe, 2006); thus, the majority population has arisen from immigrants with the Indigenous and First Nation populations becoming a displaced minority (Perry, 1996). The effects of colonialism within the four countries include systematic discrimination, poverty, racism and a paved transition to a Westernised lifestyle (Voaklander et al., 2020). Moreover, these countries are contemporary societies of settler populations with a predominantly British heritage. Political and legal structures also draw heavily on common law and democratic English political traditions (Voaklander et al., 2020). Thus, the four countries were selected to ensure an effective comparative analysis of Indigenous and First Nations people could occur.

For this thesis, the term ‘Indigenous’ will be used when discussing the various Indigenous and First Nation populations within Australia, New Zealand, Canada and the US. There has been no official definition regarding ‘Indigenous’ adopted by any United Nations system body, which is evidenced by the considerable diversity among Indigenous people internationally (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2020; United Nations, n.d.). This terminology is used for its consistency with the United Nations Declaration on the Rights of Indigenous peoples (United Nations, n.d.). However, the specific name of an Indigenous group will be used where appropriate. For example, if it is imperative that the reader understand a topic is specifically related to the Métis community, then the board term ‘Indigenous’ will be replaced with the more specific local term. Where researchers have published using a specific term, for example Native American rather than First Nation Americans, those terms have been retained as published.

The thesis begins with a review of the literature, starting with government statistics, to understand the rates of sexual offending in the four countries. Literature regarding sexual offending and treatment is then examined, using the risk, need and responsivity principles to

present findings for non-Indigenous and Indigenous people who have sexually offended.

Here, the aim is to establish a foundation of past knowledge before investigating the more nuanced literature on treatment needs and evaluator research for Indigenous people who have sexually offended. A rationale justifying the need to explore this gap in the literature is also provided before the three studies are presented. This thesis will provide a foundation of knowledge regarding the characteristics and effectiveness of treatment for Indigenous people who have sexually offended in Australia and internationally.

1.1 Sexual Offence Statistics

The previous section provided a snapshot of Indigenous over-representation in the criminal justice system and introduced the over-representation of Indigenous people for sexual offences. This section provides a detailed outline of sexual offences in Australia, New Zealand, Canada and the US. This provides context regarding the rates of sexual offending in each country, how the rates compare historically and the types of sexual offences perpetrated. Information is also provided on the rates of sexual offences for Indigenous and First Nations people in comparison to the total population. Because there is limited consistency between the reporting of sexual offence statistics in each country, best efforts are made to ensure the information is comparable. Statistics from each country are, therefore, reported separately with a conclusion to summarise the statistical comparisons. See Table 1.1 for an overview of how statistics are reported for each country.

Table 1.1*Breakdown of Statistical Reporting Between Australia, New Zealand, Canada and the US*

Location	Provider	Definition	Population	Location	Measure
Australia	Australian Bureau of Statistics	Sexual and Related Offences	Aboriginal and Torres Strait Islander Non-Indigenous	New South Wales, Queensland, South Australia, Northern Territory and the Australian Capital Territory	Raw numbers Per 100,000 population
New Zealand	Ministry of Justice	Sexual violations, attempted sexual violations, incest, indecent assault, objectionable publications, and ‘other’ sexual offences	Māori, Pacific Islander, European, Asian, Other, Unknown	National	Raw numbers Percentages
Canada	Statistics Canada	Sexual violations without a weapon or bodily injury, sexual violations with a weapon or the threat or actual bodily injury, sexual assault in circumstances of aggravation, sexual violations against a child	Total Canadian population	National	Raw Numbers Percentages Per 100,000 population
United States	Federal Bureau of Investigation’s National Incident-Based Reporting System ¹	Rape ² (penetration of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim)	American Indian, Alaskan Native, Native Hawaiian or other Pacific Islander people, Black or African–American people, American, White American, Asian	11,993 agencies nationally	Raw numbers Percentages Per 100,000 population

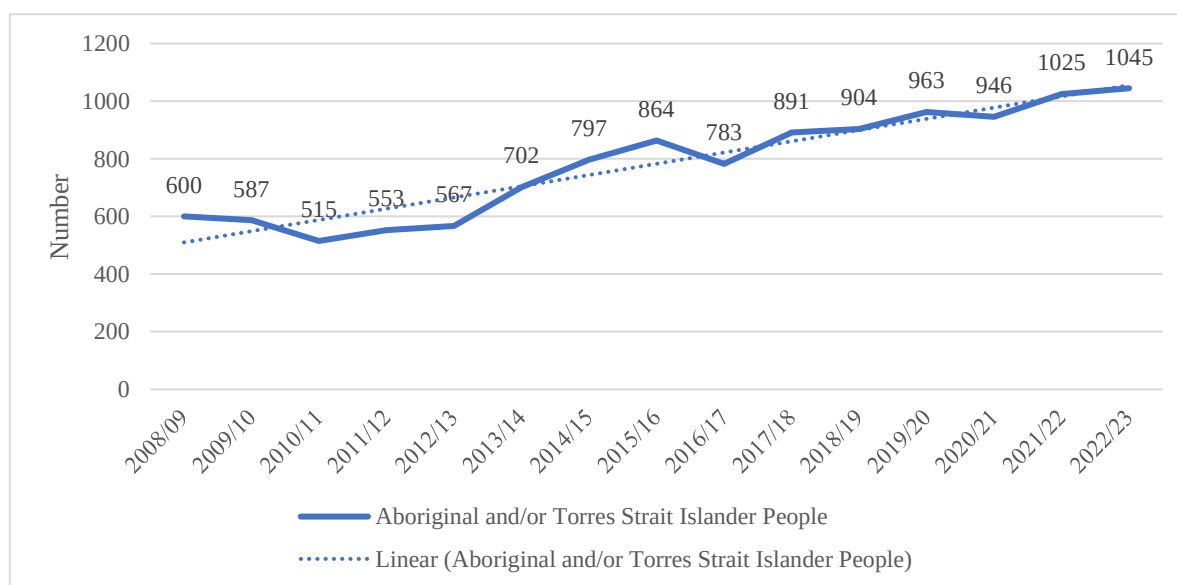
Note. ¹ Until recently, this program was known as the ‘Uniform Crime Reporting Program’. ² This definition was revised in 2013 to include male victims.

1.1.1 Australia

The Australian Bureau of Statistics (ABS) is responsible for reporting crime and victimisation data in Australia. The ABS uses the term ‘sexual assault and related offences’ to define sexual offence recorded by the criminal justice system in select jurisdictions that have sufficient information (e.g., New South Wales, Queensland, South Australia, Northern Territory and the Australian Capital Territory; ABS, 2023b). There were 9,531 (41.2 per 100,000) individuals charged with a sexual assault or related offence during the 2022–23 reporting period, of which Aboriginal and/or Torres Strait Islander people accounted for 1,045 offences. A steady increase in sexual offences by Aboriginal and/or Torres Strait Islander people can be observed since the 2011–12 reporting period (see Figure 1.1).

Figure 1.1

Sexual Assault and Related Offending by Aboriginal and/or Torres Strait Islander People 2008–09 to 2022–23

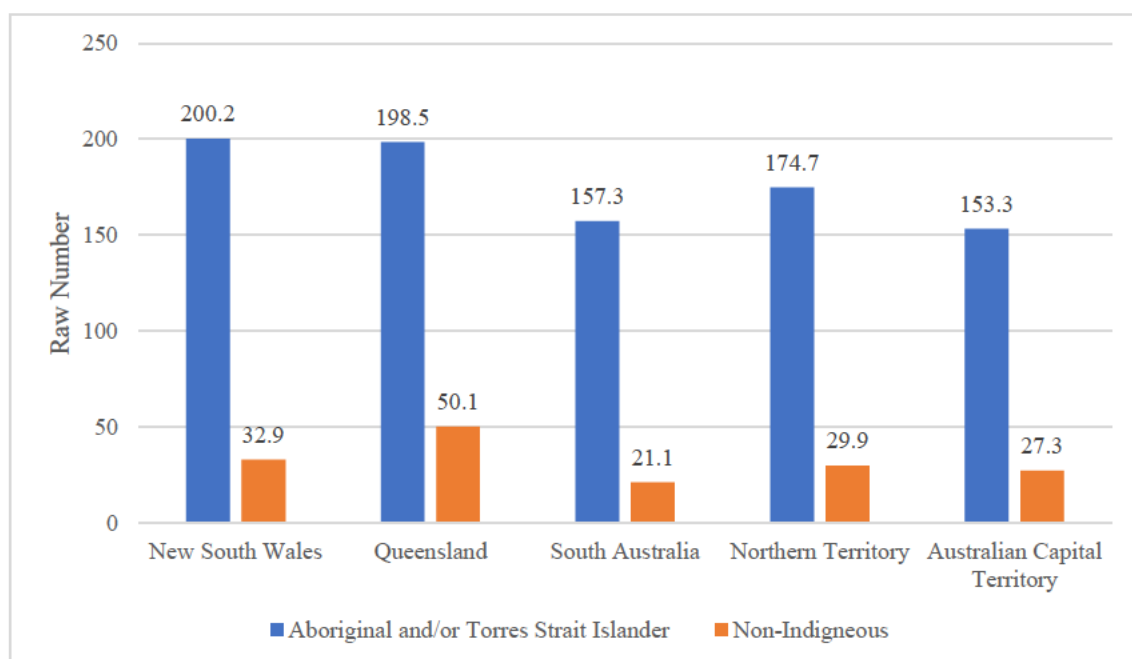


It is important to compare and contextually understand the differences in sexual offending rates by Aboriginal and/or Torres Strait Islander people and non-Indigenous people, acknowledging that the most recent census figures state Aboriginal and Torres Strait Islander people account for 3% of the Australian population (ABS, 2021). Statistics on the rate of

sexual offences per 100,000 of the population are useful to observe these differences, despite such statistics not being provided by all jurisdictions compared in this study. Figure 1.2 provides an overview of sexual assault and related offences comparing Aboriginal and/or Torres Strait Islander people and non-Indigenous people. It can be noted that Aboriginal and/or Torres Strait Islander people are considerably more likely to be reported for sexual assault or related offences than non-Indigenous people. A steady increase in the number of sexual offences by Aboriginal and/or Torres Strait Islander people can also be observed since the 2011–12 reporting period (see Figure 1.1). Raw offending rates show a recorded 600 sexual and related offences in the year 2008–09, which has steadily increased to 1,045 by the 2022–23 collection period (ABS, 2023b).

Figure 1.2

Sexual Assault or Related Offences for Aboriginal and/Torres Strait Islander People and Non-Indigenous people per 100,000

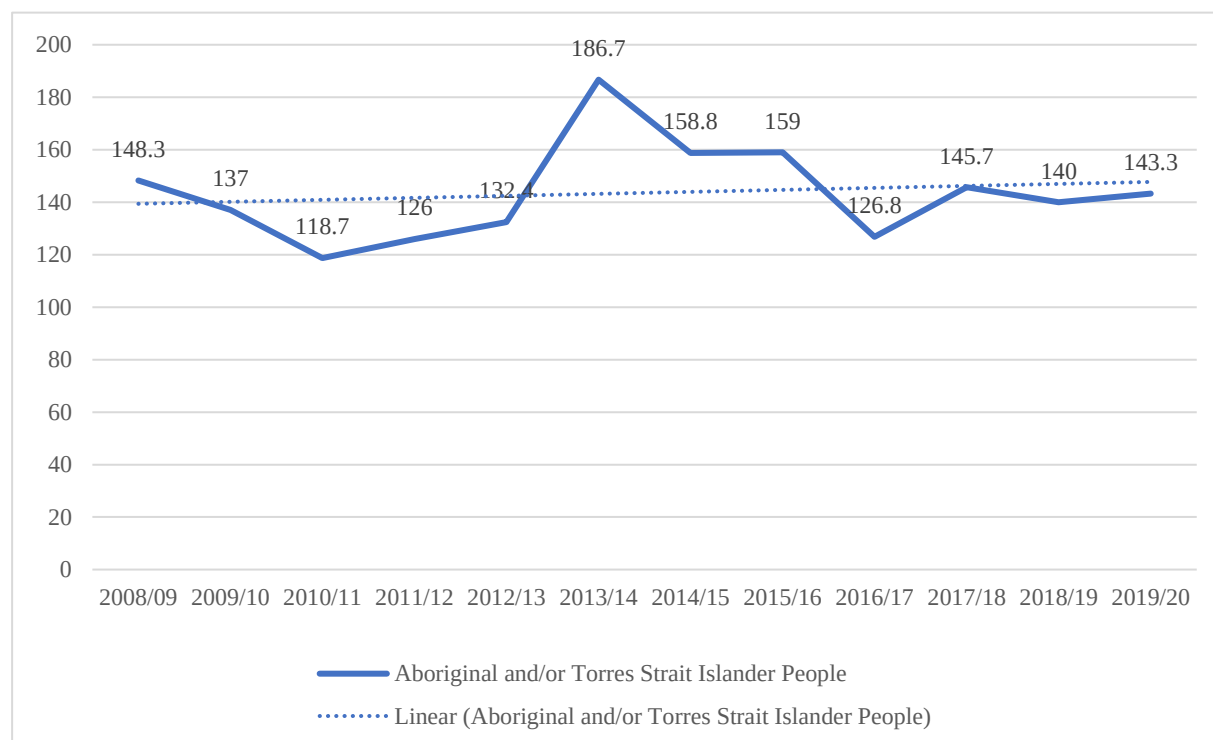


Source: ABS (2023).

Reported sexual assault and related offending is higher among Aboriginal and/or Torres Strait Islander people in comparison to non-Indigenous people, particularly in Queensland and New South Wales. This rate of sexual offending (per 100,000) has remained steady between 2008–09 and 2022–23 (see Figure 1.3), despite the Aboriginal and/or Torres Strait Islander population growing by 19% during 2011–16 (ABS, 2016). Although a spike in the average offender rate occurred during the 2013–12 reporting period, this figure has reduced in recent years. Nonetheless, these data suggest the issues of sexual offending are heightened among Aboriginal and/or Torres Strait Islander communities and need to be addressed.

Figure 1.3

Aboriginal and/or Torres Strait Islander People Sexual Assault and Related Offending Rates 2008–2023 per 100,000



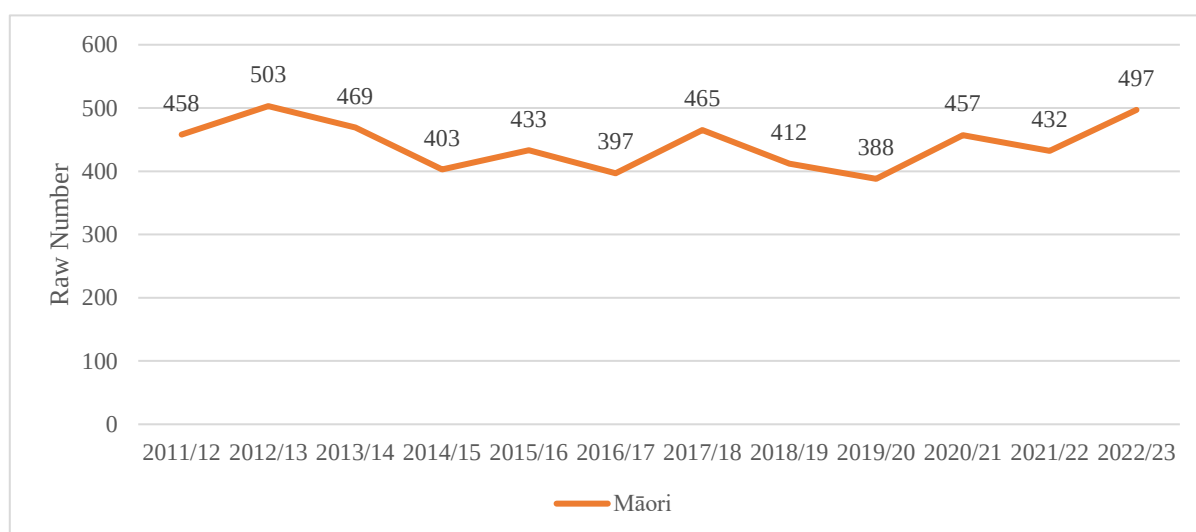
Source: ABS (2023).

1.1.2 New Zealand

The Ministry of Justice is responsible for reporting official statistics on sexual offences in New Zealand. The term ‘sexual offence’ encompasses several offence types: sexual violations, attempted sexual violations, incest, indecent assault, objectionable publications (defined as child exploitation material and visual recording of an individual more generally) and ‘other’ sexual offences. Consistent with Australia, this definition includes assaultive and non-assaultive sexual offences. A total of 6,802 sexual offences were reported in 2023, a figure remaining steady since 2012 (Ministry of Justice, 2023). Māori people were reported for 497 sexual offences and account for 30% of all people charged with a sexual offence in New Zealand (Ministry of Justice, 2023). This rate of reported sexual offending by Māori people has also remained steady since 2012 (see Figure 1.4). Like Aboriginal and/or Torres Strait Islander people in Australia, it is important to acknowledge the size difference between the two populations. According to governmental data from the 2018 Census report, Māori people comprise 16.5% of the overall population and the New Zealand European population amounts to 70.2%—with the remaining population encompassing various ethnic groups (Stats New Zealand, 2020).

Figure 1.4

Total Sexual Offending by Māori People 2011–23

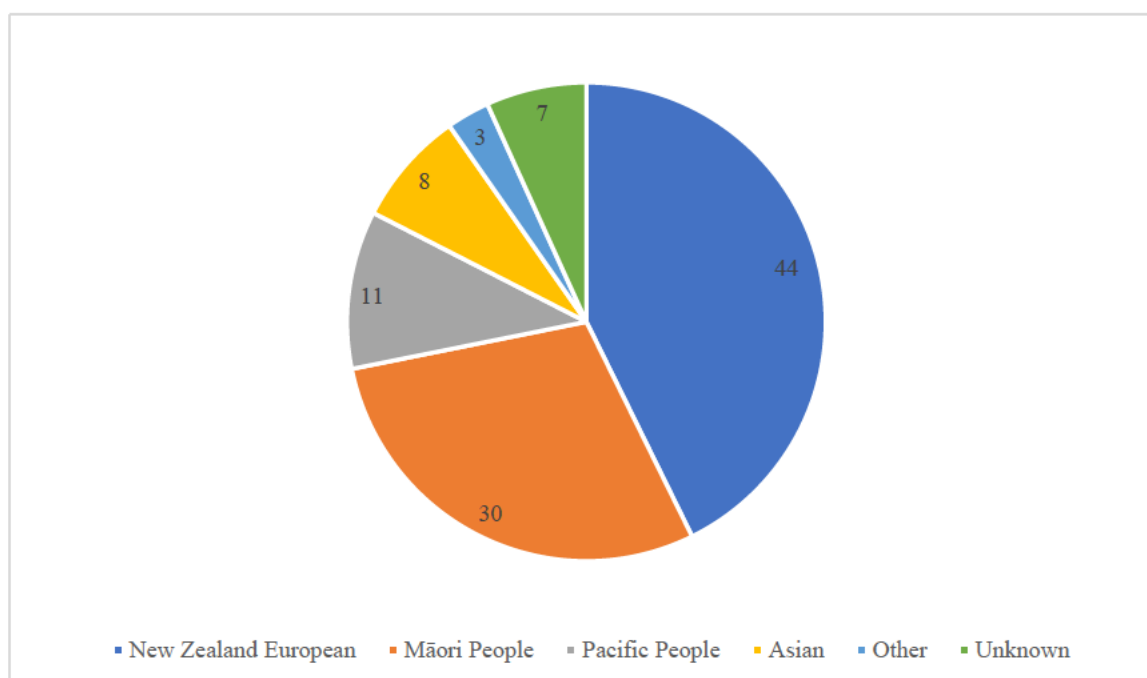


Source: Ministry of Justice (2023).

Comparisons in sexual offending are made by the Ministry of Justice between Māori people and the New Zealand European population, which is the largest ethnic population in New Zealand. Collectively, the New Zealand European population was more likely to be charged with a sexual offence (44%; $n = 732$) than Māori people (30%; $n = 497$; Ministry of Justice, 2023). Figure 1.5 provides a comparison between the percentages of sexual offences recorded for various ethnic groups in New Zealand.

Figure 1.5

Percentages of Total Sexual Offences by Ethnic Group During 2020–23

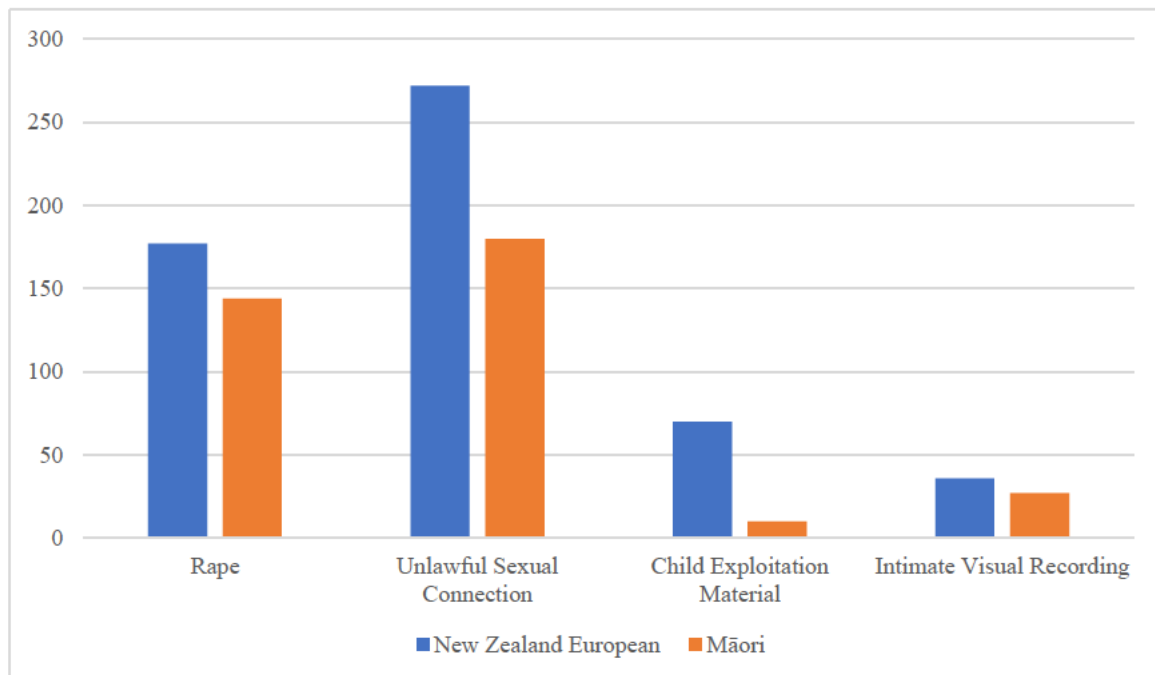


Source: Ministry of Justice (2023)

The Ministry of Justice (2023) provides a detailed breakdown of ‘contact’ sexual violation offences and ‘non-contact’ objectionable publication offences. During the 2020–23 reporting period, Māori people were substantially more likely to be charged with a contact sexual offence than a non-contact sexual offence than New Zealand Europeans (see Figure 1.6). There were small to moderate percentage differences between Māori and New Zealand European people for rape (35% v. 44%), unlawful sexual connection (31% v. 48%) and visual recording (32% v. 42%). Māori people were also considerably less likely to be reported for child exploitation material offences than New Zealand European people (9% v. 63%; Ministry of Justice, 2023).

Figure 1.6

Sexual Offences by Māori and New Zealand European People 2020–23



Source: Ministry of Justice (2023).

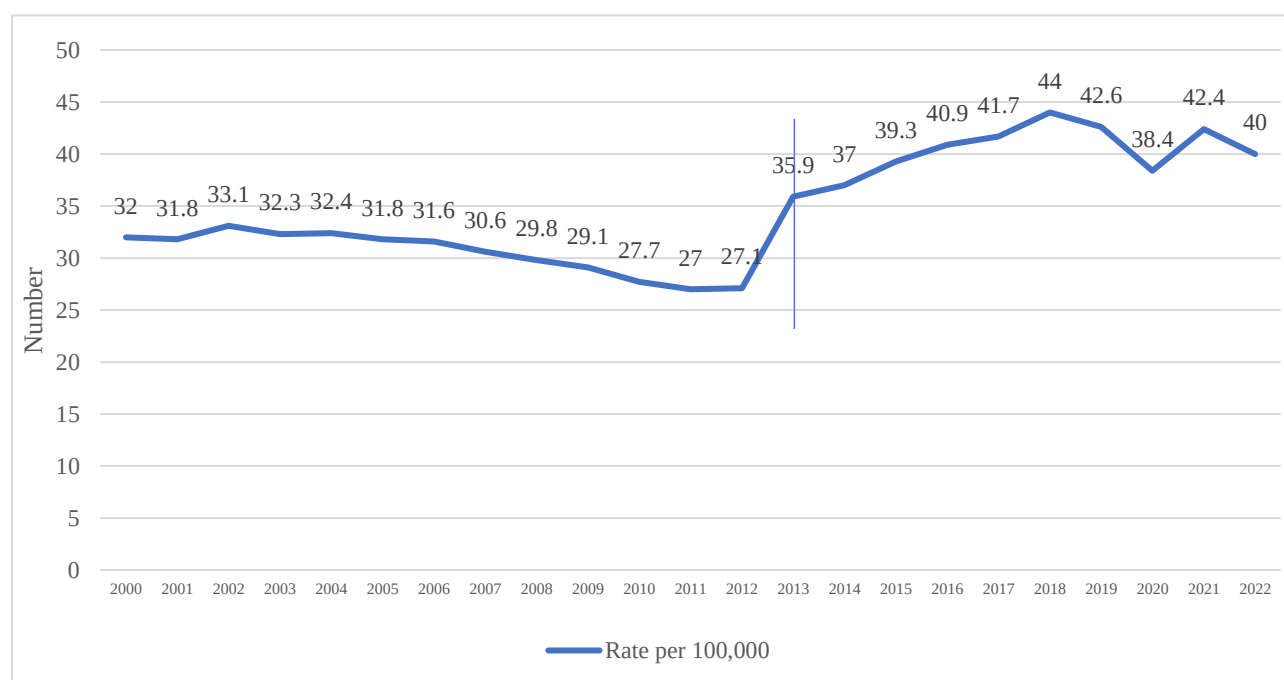
1.1.3 The United States

In the US, the Federal Bureau of Investigation's (FBI) National Incident-Based Reporting System (NIBRS)—previously the Uniform Crime Reporting Program until a changeover in 2021 (Federal Bureau of Investigation, 2021)—is responsible for providing an overview of sexual offending information. The NIBRS uses the term 'rape' to define penetration of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim (FBI, 2022a). In 2022, there were 29,109 rapes, equating to 40.0 arrests for rape per 100,000 people (FBI, 2022a). These figures are drawn from information retrieved from 11,993 agencies throughout the US with a population of 270,485,978 (FBI, 2022a). Arrest figures do not reflect the number of individuals who have been arrested, but rather represent the number of rapes that occurred, as reported by law enforcement agencies to the NIBRS.

Although the NIBRS provides information concerning the number of arrests made for rape between 2000 and 2022, two definitions of rape have been used during this time. From 2000 to 2012, rape was defined as the sexual penetration of a female forcibly and against her will. This definition was later revised in 2013 to penetration of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim, thus including male victims of sexual assault (FBI, 2019, 2022a). Figure 1.7 provides an overview of the number of arrests for rape between 2000 and 2022, with a split for the change in definition.

Figure 1.7

Rapes per 100,000 People from 2000 to 2022 in the US



Source: National Incident-Based Reporting System (2022).

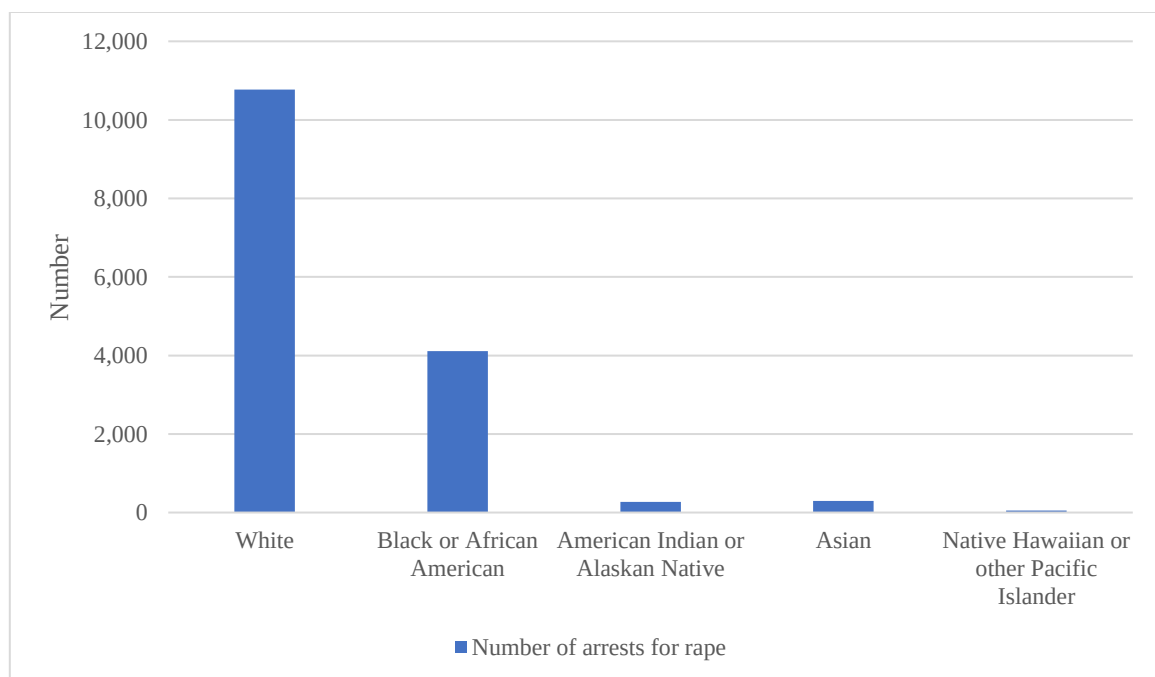
From 2000 to 2012, there had been a steady decrease in arrest rates for rape using the conventional definition. When the revised definition was implemented in 2013, there was a sharp increase (8.8%) in the rate of people arrested for rape, which continued to increase until

2018. The most recent 2022 figures are down 2.4% from 2021, although up 12.9% from 2012 (FBI, 2022b) due to the change in terminology to include male victims of sexual assault.

In 2023, agencies submitted information to the NIBRS on the race and ethnicity of people who had been arrested for sexual offending (see Figure 1.8). A total of 15,502 rapes were reported from this information. In regard to the race of arrestees, as identified by the FBI (2022b), white Americans were charged with 69.5% ($n = 10,769$) of rape charges, Black or African–American people 26.5% ($n = 4,107$), American Indian or Alaskan Native people 1.8% ($n = 274$), Asian 1.9% ($n = 299$) and Native Hawaiian or other Pacific Islander people 0.3% ($n = 53$).

Figure 1.8

Number of Arrests for Rape According to Race in the US in 2022



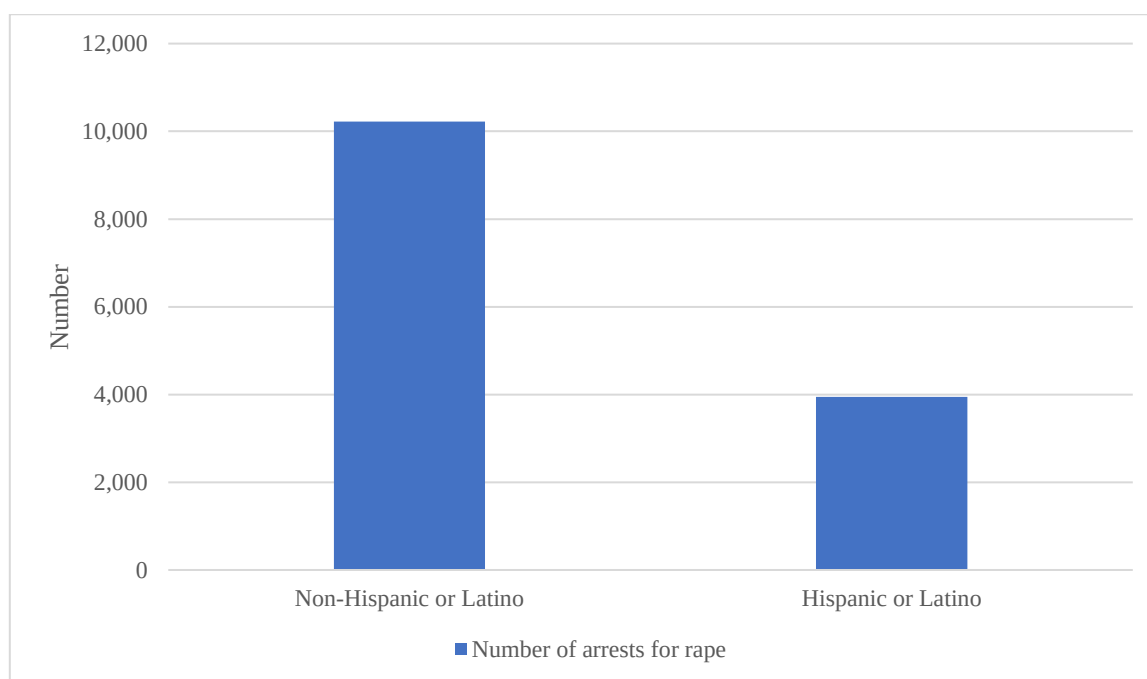
Source: National Incident-Based Reporting System (2022).

Of the 29,109 offences, 13,607 reported the ethnic background of these arrestees. In Figure 1.9, the number of offences between Hispanic or Latino and non-Hispanic/Latino are provided. As identified by the FBI (2022b), people of non-Hispanic or non-Latino descent were more likely to be charged with a rape offence (71.4%; $n = 9,336$) compared with

Hispanic or Latino people (28.6%; $n = 3,731$). This demonstrates similar trends between Indigenous people and other minority ethnicities, but also the importance of disaggregating race and ethnicity within the data to report on nuances.

Figure 1.9

Number of Arrests for Rape According to Ethnicity in the US in 2022



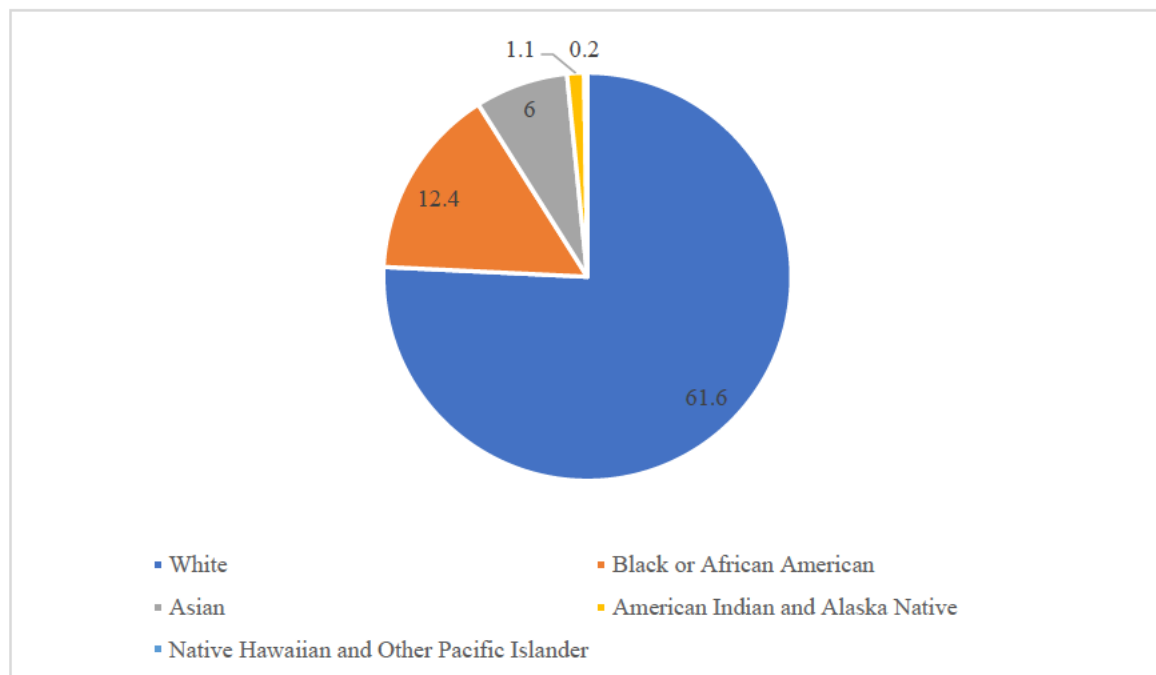
Source: National Incident-Based Reporting System (2022).

Like the statistics reported in Australia and New Zealand, the US has noticeable population differences between various race and ethnic backgrounds. According to the most recent figures by the United States Census Bureau (2020), despite experiencing a 23% population growth from 2010 to 2020, Hispanic and Latino people still only account for 18.7% of the US population (see Figure 1.10 for information on the population data). There are also extensive differences in relation to an individual's race. In 2020, the white American population accounted for 204.3 million people, which is larger than all of the comparative populations: Black or African-American (41.1 million), American Indian and Alaska Native population (3.7 million), Asian (19.9 million) and Native Hawaiian and Other Pacific Islander

people (689,966; United States Census Bureau, 2020). Figure 1.11 compares these different populations and arrests for rape.

Figure 1.10

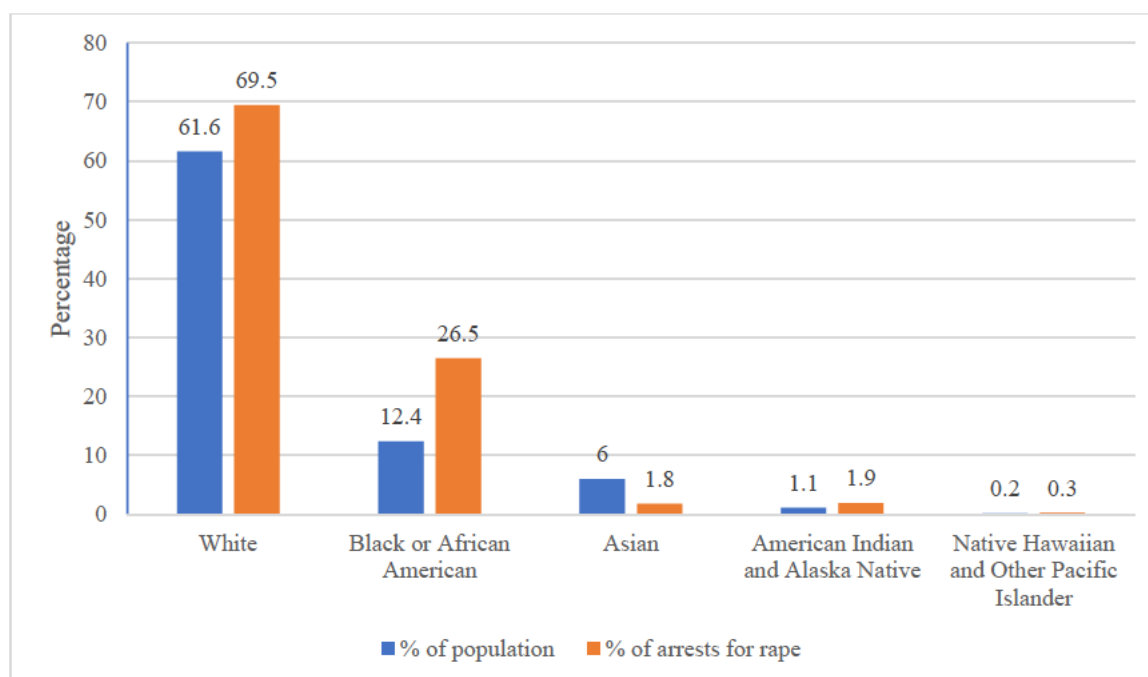
US Population Comparison for Race in Percentage



Source: National Incident-Based Reporting System (2022).

Figure 1.11

Comparison Between US Population and Arrests for Rape in Percentage



Source: National Incident-Based Reporting System (2022).

1.1.4 Canada

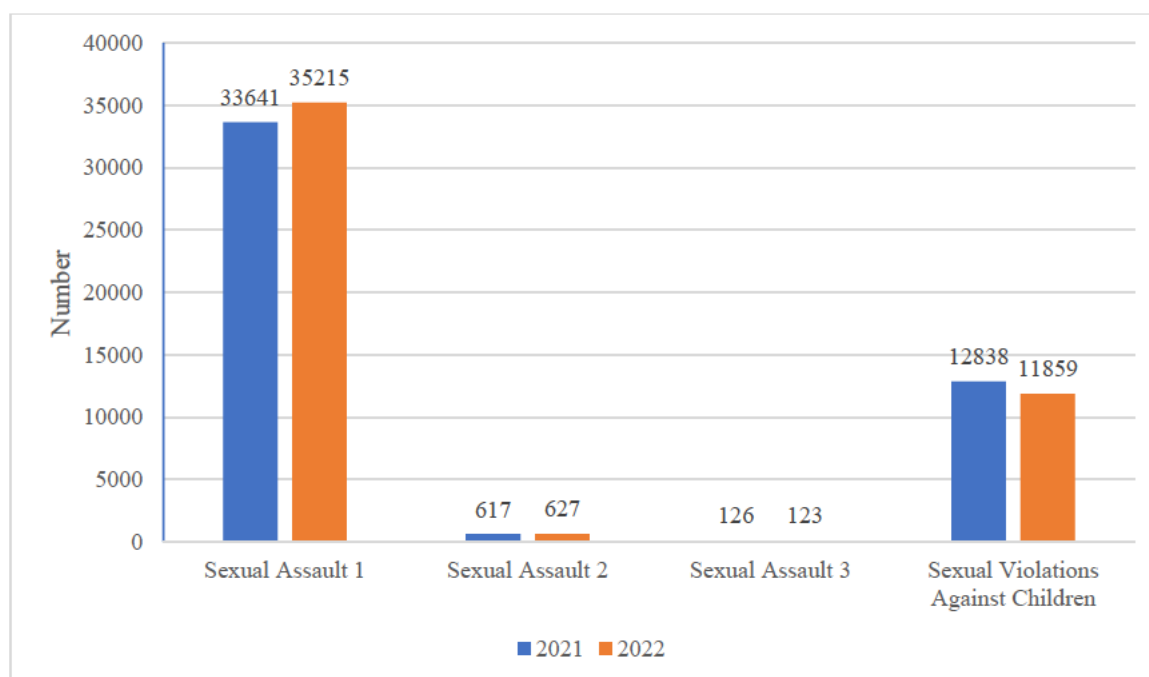
In Canada, police-reported sexual offence statistics are published by Statistics Canada. Sexual assault is defined as a violent crime ranging from unwanted sexual touching to violent, non-consensual intercourse. The offence is categorised into three levels. Level 1 involves an incident involving violations of a sexual nature, without the use of a weapon or evidence of bodily harm. This may include unwanted touching or other non-consensual bodily contact for sexual purposes (Statistics Canada, 2017). Level 2 involves sexual assault while in possession of a weapon, or the threat or actual cause of bodily harm to a third party. The third level is reserved for the most serious sexual assaults that involve circumstances of aggravation. These may include sexual assault involving wounding, maiming, disfiguring or endangering the life of the victim (Statistics Canada, 2017). Outside of these categories, there is additional

information provided for sexual violations against children that have not been reported as level 1, 2 or 3 sexual assault offences (Statistics Canada, 2017, 2022).

Level 1 sexual assaults were the most common offence reported to police in 2022, with the number of offences increasing by 3% from 2021 to 2022. During this same period, level 2 sexual assaults remained consistent (and less frequent than level 1 assaults) while level 3 observed a 4% decrease (Statistics Canada, 2021). Moreover, there was a 9% decrease in sexual violations against children from 2021 to 2022. Figure 1.12 provides a comparison between levels 1, 2 and 3 sexual assault and sexual violations against children between 2021 and 2022 (Statistics Canada, 2022).

Figure 1.12

Varying Levels of Sexual Assault in Canada Between 2021 and 2022



Source: Statistics Canada (2023).

Unlike the three countries already discussed, Canada is unique because the government does not report sexual offending statistics for Indigenous Canadian populations, instead utilising self-reported victimisation data every five years from First Nations communities. There is no explanation from the Canadian government outlining why this data

are not provided. However, a report released by the Canadian government in 2018 stated that police have indicated that sexual assault in Indigenous communities is six times higher than in non-Indigenous communities (463 incidents of sexual assault per 100,000 population compared with 73 per 100,000 among non-Indigenous people; Statistics Canada, 2018).

1.2 Conclusion

These government statistics illustrate that sexual offending is a continuing problem faced by criminal justice systems in Australia, New Zealand, Canada and the US. Of concern are the rates for Indigenous people who are over-represented in sexual offending statistics, particularly in comparison to dominant Western groups. Sexual offending in Indigenous communities is rooted in part in the historical trauma from colonisation and the social realities created by historical and ongoing processes (Collin-Vézina et al., 2009; Wieskamp & Smith, 2020) and has been described by academics as an epidemic (Bailey et al., 2017; Collin-Vézina et al., 2009). Treatment research should shift towards understanding the needs of Indigenous people who have sexually offended and how these compare with the current treatment practices that accord with contemporary Western methods. It is hoped such a shift would result in the understanding and establishment of effective treatment programs specifically tailored for Indigenous people and the reduction of sexual violence in communities. To understand the requirements for empirically sound treatment programs, the next section situates the literature within the risk, need and responsivity model utilised by criminal justice agencies internationally. It is important to understand the risk, need and responsivity principles given they guide the assessment and prioritisation of treatment according to the individual's risk level, specific treatment needs and responsiveness to different interventions. Successful application of these principles ensures that treatment is effectively tailored to address the unique characteristics of each individual, optimising the reduction of recidivism.

Chapter 2: Literature Review

The previous chapter introduced the topic of Indigenous over-representation in the criminal justice system and how this issue stems from colonisation and the introduction of Western colonial policies. In addition, a detailed outline of sexual offending rates among Indigenous people in Australia, New Zealand, Canada and the US was provided, including historical trends and the types of sexual offences perpetrated. To provide context for the thesis, this chapter explores literature relating to Indigenous and non-Indigenous people who have sexually offended. Specifically, this chapter explores the risks of people who have sexually offended, their criminological needs and current methods of responding to individuals who have sexually offended, further providing an overview of meta-analyses investigating this area of knowledge. It finishes by outlining the rationale for this thesis and the research questions that will be answered throughout.

2.1 Risk, Need and Responsivity for People Who Have Sexually Offended

In the twentieth century, the practice of penology was divided between the proponents of punishment and rehabilitation. Contention between these opposing ideologies culminated in the 1970s to 1980s in what became known as the ‘Nothing Works’ doctrine. Martinson’s (1974) doctrine challenged the notion of rehabilitation by casting doubt on the effectiveness of treatment programs. This scepticism formed the catalyst of a broader debate between competing schools of thought on how to balance rehabilitation and punishment. Despite considerable pessimism in the academic community as a result of the doctrine, a few scholars (Andrews et al., 1990; Gendreau & Ross, 1979) challenged Martinson’s proposition with a series of studies identifying ‘what works’ in correctional treatment. These studies concluded that effective treatment programs adhere to three basic principles: risk, need and responsivity (Bonta & Andrews, 2007; Hanson et al., 2009; Hanson & Yates, 2013). Drawing on these studies, this section (i) outlines the risk, need and responsivity principles for people who have

sexually offended; (ii) explains the importance of addressing these principles to achieve goals of reducing problematic and illegal behaviours; and (iii) provides an overview of the components needed to achieve this.

2.1.1 The Risk Principle

The risk principle stipulates that treatment intensity for people who have sexually offended should match the level of risk-to-reoffend presented. High-intensity treatment should, therefore, be reserved for those individuals at significant risk of reoffending, whereas others considered low risk should receive minimal or no services (Hanson & Yates, 2013; Lovins et al., 2009). An intensive approach to treatment for low-risk offenders can be counterproductive and increase the risk of recidivism (Hanson & Yates, 2013). Rather, correctional interventions, such as community supervision, should be employed as an alternative to treatment for people deemed a low risk of recidivism (Hanson, Harris, et al., 2014; Hanson & Yates, 2013). Consequently, to determine whether treatment is required, there must be a reliable way to calculate and assess the level of risk presented (Helmus, 2018). These calculations also serve as the foundation for determining the correct ‘dosage’ of treatment required, such as the type and duration of treatment required to reduce the risk of reoffending.

2.1.1.1 Calculating Risk

It has become a widely accepted practice for criminal justice agencies to use actuarial risk assessment tools to identify an individual’s level of risk, reduce bias and promote consistency (Taxman & Dezemmer, 2018). Research shows certain crime types and offender profiles require personalised risk assessment tools to measure constructs related to specific offending behaviours or groups of offenders (Myer, 2019). As a result, there are risk assessment tools designed for female offenders (Van Voorhis et al., 2010), violent offenders (Douglas & Skeem, 2005), offenders who have operated a vehicle when intoxicated (B. J.

Anderson et al., 2000) and domestic violence offenders (Hanson, Helmus & Bourgon, 2007). People who have sexually offended are also a unique offender population requiring a specialised risk assessment tool (Hanson, 1997; Hanson & Thornton, 1999; A. Harris et al., 2003).

The Static-99 (Hanson & Thornton, 1999) is an empirically tested actuarial risk assessment tool for the prediction of sexual violence in adult males. It measures constructs related to sexual recidivism, such as sexual offending history and characteristics of the victim. The instrument, which is used internationally (Helmus et al., 2022), was developed by fusing static risk factors from two originally developed tools: the Rapid Risk Assessment of Sexual Offense Recidivism (RRASOR; Hanson, 1997) and the Structured Anchored Clinical Judgement assessment (SACJ-Min; Grubin, 1998). The Static-99 coding manual has been amended over time to provide a more accurate prediction of sexual recidivism. The Static-99R (A. Harris et al., 2003; Phenix et al., 2017), a revised version of the Static-99, is currently the most widely used actuarial risk assessment tool for people who have sexually offended. The Static-99R's items and scoring rules are akin to those of the Static-99, except for revised age weightings to enhance the predictive accuracy between age groups (A. Harris et al., 2003; Lee & Hanson, 2017; Phenix et al., 2017). The Static-99R comprises ten historical risk factors coded from file information (see Table 2.1). These risk factors add up to a maximum score of 12 that is subsequently translated into five risk categories: very low (−3 and −2), below average (−1 and 0), average (1 to 3), above average (4 and 5) and well above average (6+; Phenix et al., 2017).

Table 2.1*Static-99R Items*

Item	Risk Factor
1.	Age at release from index sex offence
2.	Ever lived with a lover
3.	Index non-sexual violence—Any convictions
4.	Prior non-sexual violence—Any convictions
5.	Prior sex offences
6.	Four or more prior sentencing dates (excluding index)
7.	Any convictions for non-contact sex offences
8.	Any unrelated victims
9.	Any stranger victims
10.	Any male victims

Note. These risk factors are retrieved from Phenix et al. (2017) and are the most recent revised version of the Static-99R. To view the Static-99R scoring sheet, see Appendix 1.

When calculating the predictive accuracy of actuarial risk assessment tools, scholars commonly use the area under the curve (AUC) statistical method. AUC values are typically used to predict dichotomous outcome variables, such as recidivism (Babchishin et al., 2012). The AUC score can vary between 0 and 1 and can be interpreted as the probability that a randomly selected individual will have a higher risk score than another randomly selected individual (Babchishin et al., 2012). A score less than .50 indicates a level of prediction expected by chance; therefore, a score above .50 equates to positive accuracy in prediction, with 1.0 indicating perfect prediction of risk (Babchishin et al., 2012; Helmus & Babchishin, 2017; Lee & Hanson, 2017). According to Rice and Harris (2005), a computed AUC score of .56 corresponds to a small effect size, whereas a score of .64 is considered a moderate effect, and a large effect size equates to .71. When testing for statistical significance in the AUC, 95% confidence interval (CI) values are considered, which indicate statistical significance when the CI does not contain .50 (Rice & Harris, 2005).

The predictive accuracy of the Static-99 was first examined in 2000 by Hanson and Thornton, who compared the recently developed risk assessment tool to the RRASOR and the SACJ-Min. These authors used data from four studies, with samples from a maximum-security psychiatric facility, a correctional facility, a mental health centre in Canada and prisons in England and Wales. For predicting sexual recidivism, the Static-99 (AUC = .71; 95% CI = [.68, .74]) outperformed both the RRASOR (AUC = .68; 95% CI = [.65, .72]) and the SACJ-Min (AUC = .67; 95% CI = [.63, .71]). For violent recidivism, the Static-99 (AUC = .69; 95% CI = [.66, .72]) the RRASOR (AUC = .64; 95% CI = [.60, .67]) and the SACJ-Min (AUC = .64; 95% CI = [.61, .68]). As these results show, the Static-99 outperformed the two predecessor instruments (Hanson & Thornton, 2000). Similar results were reported at a Canadian prison-based program for adults ($N = 150$) assessed as medium to high risk for reoffending ($M = 3.24$; $SD = 2.09$). The Static-99 was significant, albeit modest, in predicting sexual recidivism (AUC = .68; $p < .05$), serious recidivism (AUC = .70; $p < .01$) and any recidivism (AUC = .76; $p < .01$) during the prescribed risk-to-reoffend period ($M = 4.5$ years; $SD = 2.2$). The authors compared the Static-99 to six other actuarial risk assessment tools designed for people who have sexually offended, with only the RRASOR slightly outscoring the Static-99 in sexual recidivism prediction (AUC = .73; $p < .01$; Barbaree et al., 2001).

Barbaree et al. (2001) and Hanson and Thornton (2000) demonstrated the benefits of using the Static-99 to predict risk among people with a sexual offence in Canada and the United Kingdom. Findings were generated by the retrospective retrieval of data; however, Hanson and Thornton's dataset was created from retrieving information in existing studies, limiting their findings because the authors were unable to assess the inter-rater reliability of the data gathered. This limitation is of particular interest considering the potential for coding differences between practitioners in Canada and the United Kingdom. This shortcoming was later addressed in a review of four risk assessment instruments: the Static-99, Static-99R,

Static-2002 and Static-2002R (Reeves et al., 2018). Consistent with Hanson and Thornton's (2000) findings, the four instruments were retrospectively coded; however, inter-rater reliability was assessed by five independent raters. To test the inter-rater reliability, 75 cases were randomly selected and rescored by a rater blind to the initial score. Almost perfect agreement on all measures was indicated with statistically significant Kappa values in the range of .89 to .98 (all $p < 0.1$), demonstrating the benefits of inter-rater testing.

The Reeves et al. (2018) sample comprised individuals who had, or were at risk of, sexually offending in Australia ($N = 621$), with a large risk-to-reoffend period of 12 to 16 years ($SD = 6.04$; $range = .48-28.63$). The results confirm the moderate predictive accuracy of the Static instruments, with near perfect consistency between AUC values when risk-to-reoffend was calculated at 15 years: Static-99 (AUC = .69; 95% CI = [.62, .77]), Static-99R (AUC = .68; 95% CI = [.60, .75]), Static-2002 (AUC = .69; 95% CI = [.62, .77]) and Static-2002R (AUC = .69; 95% CI [.61, .76]). Further analysis was conducted to calculate the 'at risk-to-reoffend' periods of 5 and 10 years, which indicated the levels of risk increases were minimal. As there were no significant differences in the AUC values, this suggests using multiple static risk assessment tools has no benefit in increasing predictive accuracy (Reeves et al., 2018). Additional studies within the Australian context have produced moderate (Spiranovic, 2012) to large effects (Allan et al., 2006; Smallbone & Rallings, 2013), demonstrating the Static-99/R's accuracy in predicting sexual and violent recidivism (see Table 2.2 for a statistical overview of the literature).

The criminological literature is consistent in its positive findings regarding the predictive accuracy of static risk assessment tools. This degree of understanding has been empirically demonstrated internationally with samples from Sweden (Långström, 2004; Sjöstedt & Långström, 2001), the Netherlands (De Vogel et al., 2004), Switzerland (Endrass et al., 2009; Gonçalves et al., 2020), Austria (Rettenberger et al., 2013), Norway (Sandbukt et

al., 2021) and the US (Azizian et al., 2022). Although results fluctuate between moderate and large effects, such optimistic findings were not reported when tested with a small sub-sample of African–Asian people who had sexually offended ($n = 128$). According to Långström (2004), the Static-99/R had no more predictive accuracy than what could be assumed by chance (Static-99; $AUC = .50$, 95% $CI = [.25, .74]$; Static-99R, $n = 128$, $AUC = .48$, 95% $CI = [.20, .77]$). These small AUC values and 95% CIs falling below the threshold question the Static-99/R's application within ethnic populations.

Psychologists administering actuarial tools for risk assessment are responsible for ensuring these methods are supported by empirical evidence and are appropriate for the culture and social contexts of the individuals assessed (Allan, 2018). If the assumption is made that the psychological variables or constructs to be measured are the same for all individuals regardless of ethnicity, then the instruments used to assess risk will not change and will be minimal in their differences (Geisinger & McCormick, 2012). Given this latter is unclear, it is essential to ensure risk assessment tools are diverse and effective for individuals from different cultures (Gutierrez et al., 2016). Therefore, more research is needed to understand the types of actuarial tools used for varying cultural demographics and whether these tools are universal or culture specific. This thesis investigates the types of risk instruments that are utilised because if risk cannot be assessed effectively, then the level of treatment provided to Indigenous people in accordance with these tools must also be questioned.

The predictive accuracy of actuarial tools can be divided into discrimination and calibration, and it is necessary to measure both to gain a complete understanding of the utility of a risk scale (Helmus & Babchishin, 2017; Singh, 2013). Discrimination examines the extent to which a scale can distinguish recidivists from non-recidivists (differences in the risk scores of recidivists and non-recidivists). Calibration evaluates the correspondence between

predicted recidivism rates per score and observed rates in a new sample (Helmus & Babchishin, 2017). However, a risk assessment tool is biased when either the discrimination or the calibration varies across groups (Lee et al., 2020). Prediction tools can be biased by different ethnic or cultural groups in several ways. For example, the item term ‘unrelated victim’ can have a different meaning depending on whether an individual is from a collectivistic or an individualistic cultural society and result in higher risk scores for marginalised groups (Lee et al., 2020).

In 2017, Lee and Hanson examined ethnic bias within the Static-99 using three major ethnic groups in the US: white ($n = 789$), African–American ($n = 466$) and Hispanic ($n = 719$). Sexual recidivism information was examined over a 5 year risk-to-reoffend period, and showed moderate predictive accuracy for the white ($AUC = .817$; 95% CI = [.723, .819]) and African–American ($AUC = .738$; 95% CI = [.638, .839]) cohorts. Although the Hispanic cohort had a large AUC value of .727, the 95% CI was close to the .50 threshold (95% CI = .589, .814). These ethnic biases have been reported in additional studies examining the predictive accuracy of Static tools for white, African–American and Hispanic people who have engaged in a sexual offence (Boccaccini et al., 2017; Hanson, Lunetta, et al., 2014; Leguízamo et al., 2017). The Static-99/R has also been shown to have no predictive accuracy for non-US born Hispanic people who have migrated to the US from Mexico and other Latin American countries (Leguízamo et al., 2017).

One explanation for the weak findings of discrimination and calibration for the Hispanic group may be linked to differences between major constructs of the Static-99/R and sexual recidivism under a white-dominated social structure or different cultural backgrounds. Moreover, given the patriarchal and collectivist cultural values of the Hispanic cohort, there is a tendency for sexual crimes and victimisation to go unreported. Consequently, even if authors obtained self-reported information, participants may not have considered certain types

of behaviour to be criminal—for example, sexual contact between a young adult and a teenager—if there are no laws prohibiting that type of contact in their countries of origin (Leguízamo et al., 2017). Nonetheless, a lack of data regarding recidivism occurring during the risk-to-reoffend period may undermine the predictive accuracy of the Static-99R (Lee & Hanson, 2017) and question the ethicality of actuarial instruments for ethnic and cultural populations. Such concerns have also been raised for Indigenous people who have sexually offended (Lee et al., 2020).

Table 2.2*Summary Description of Previous Studies Investigating Predictive Accuracy*

Study	Sample	Sample Size	AUC		
			Static-99	Static-99R	RRASOR
Allan et al. (2006)	Complete sample	538			.71
	Non-Indigenous Australian	191			.74
	Indigenous Australian	347			.65
Azizian et al. (2022)	American	335		.61 [.52–.73]	
Barbaree et al. (2001)	Canadian	215	.68		
Boccaccini et al. (2017)	White	7,938	.646 [.62, .68]	.651 [.62, .68]	
	African–American	9,725	.626 [.60, .65]	.640 [.61, .67]	
	Overall Hispanic	8,939	.643 [.61, .68]	.634 [.60, .67]	
	Hispanic US Born	6,337	.616 [.58, .65]	.613 [.58, .65]	
	Hispanic non-US Born	2,459	.667 [.54, .79]	.646 [.52, .78]	
De Vogel et al. (2004)	Dutch	122	.71		
Endrass et al. (2009)	Swiss	69	.758		
Gonçalves et al. (2020)	Swiss	142	.76 [.64–.88]	.81 [.69–.93]	
Hanson et al. (2014)	Overall Sample		.82 [.72, .92]	.82 [.72, .92]	
	White		.86 [.72, .99]	.85 [.72, .98]	
	African–American		.75 [.55, .95]	.77 [.56, .97]	
	Hispanic		.75 [.40, .99]	.73 [.41, .99]	
Hanson and Thornton (2000)	Canadian and United Kingdom	1,208	.71 [.68–.74]		.64 [.60–.67]
Långström (2004)	Full Swedish	1,303	.75 [.68–.81]		.73 [.66–.79]
	Nordic	1,085	.76 [.70–.84]		.76 [.69–.83]
	Non-Nordic European	49	.79 [.55–1.03]		.77 [.48–1.05]
	African–Asian	128	.50 [.25–.74]		.48 [.20–.77]

Study	Sample	Sample Size	AUC		
			Static-99	Static-99R	RRASOR
Lee and Hanson (2017)	Overall Sample	2,101 ²		.771 [.723, .819]	
	White	789		.817 [.756, .877]	
	African-American	466		.738 [.638, .839]	
	Hispanic	719		.727 [.589, .814]	
Leguizamo et al. (2015)	Overall Sample	483	.683 [.48, .88]	.719 [.53, .91]	
	US Born Hispanic/Puerto Rican	268	.774 [.61, .94]	.815 [.64, .99]	
	Other Hispanic	215	.469 [.06, .99]	.524 [.19, .86]	
Reeves et al. (2018)	Australian	621	.69 [.62-.77]	.68 [.60-.75]	
Rettenberger, Haubner-Maclean & Eher (2013)	Austrian	1,077	.73 [.67, .79]	.71 [.65, .77]	
Sandbukt et al. (2021)	Norwegian	858		.76 [.69-.84]	
Sjöstedt & Långström (2001)	Swedish	1,400	.76 [.69-.83]		.72 [.64-.80]
Smallbone & Rallings (2013)	Complete Sample	399	.81 [.72-.90]	.77 [.67-.86]	
	Non-Indigenous Australian	320	.82 [.68-.91]	.79 [.68-.91]	
	Indigenous Australian	67	.76 [.61-.91]	.61 [.45-.77]	
Spiranovic (2012) ¹	Non-Indigenous Australian	660	.70 [.64-.76]	.71 [.66, .77]	
	Indigenous Australian	162	.57 [.47-.67]	.58 [.48-.67]	

Note. ¹ The results from Spiranovic (2012) were taken when the sample was at risk-to-reoffend for 5 years. Results calculated when participants were at risk-to-reoffending for 10 years are as follows: Static-99 non-Indigenous ($n = 472$; .67 [.60-.73]), Static-99 Indigenous ($n = 85$; .52 [.38-.66]), Static-99R non-Indigenous ($n = 472$; .67 [.61-.73]) and Static-99R Indigenous ($n = 85$; .51 [.37-.65]). ² A portion of the sample ($n = 127$) were classified as unknown/other.

2.1.1.2 *Calculating Risk for Indigenous People Who Have Sexually Offended*

The criminological literature consistently shows that Indigenous people exhibit more risk factors when compared with non-Indigenous people who have sexually offended (Adams et al., 2020; Perley-Robertson et al., 2019). This raises questions about whether actuarial risk assessment tools are designed to equally predict risk among Indigenous and non-Indigenous cohorts. The over-representation of Aboriginal and Torres Strait Islander people in the Australian criminal justice system (ABS, 2022b) and recidivism statistics (ABS, 2022a) presents as a concern for the validity of standard actuarial risk assessment methods for this population given these biasing effects (Smallbone & Rallings, 2013). However, the biasing effects and caution surrounding the use of risk assessment tools with Indigenous people stems from the way they have been developed and validated.

Actuarial risk assessment tools are commonly developed in accordance with the behaviours and life experiences of white offenders and scored through a Western lens (Shepherd & Lewis-Fernandez, 2016). As Shepherd and Lewis-Fernandez have stated, ‘While instruments may be thought of as “ethnically neutral,” “universal,” or “generic,” this view may overlook genuine cross-cultural differences in behavioural practices and expectations, health beliefs, social/environmental experiences, phenomenology, illness narratives, deviant conduct, and worldview’ (p. 429). Because of this, for example, it is not uncommon for an Aboriginal person raised in the remote Kimberley region of Western Australia to have their level of risk determined by how similar their risk markers are to those of a white offender from a particular region in North America (Shepherd & Lewis-Fernandez, 2016). Unsurprisingly, this raises significant concerns regarding accuracy.

Additionally, specific features of risk assessment tools—including the Static-99R—may inhibit the actual determination of risk given specific cultural features. A scoring variable of the Static-99R links with prior convictions of non-sexual violence. Consequently,

Indigenous people may receive a higher risk rating because of the over-policing of Indigenous people and communities (Shepherd & Lewis-Fernandez, 2016)—a factor particularly prevalent in Australia—resulting in inflated recidivism rates (Cunneen, 2019; Cunneen & Porter, 2017; G. O’Brien, 2021). Moreover, risk item content in actuarial tools reflects contemporary Western society and culture. This aspect is particularly relevant when examining social and environmental risk items, which are underpinned by the Western conceptualisation of a nuclear family. These items may, therefore, require reinterpretation when assessing individuals whose developmental years were established within a collectivist culture with cohesive extended family networks (Shepherd & Lewis-Fernandez, 2016; Shepherd & Willis-Esqueda, 2018). If scored risk is deemed higher than actual risk, Indigenous people can be placed in high risk treatment programs that can be iatrogenic and increase risk (Hanson & Yates, 2013).

To ensure risk is not scored incorrectly, scholars have implemented varying statistical methods to validate the predictive accuracy of risk assessment tools. Although t-tests have been used to examine group differences in predictive accuracy, they assume interval data, which contrasts with risk assessment tools that are ordinal (Babchishin et al., 2012). AUC values, therefore, remain the most appropriate analysis for ordinal data and provide a more conservative test. Used for its predictive accuracy with dichotomous grouping variables, this analysis can also examine differences regarding dichotomous group variables—such as the ability for risk scores to predict Indigeneity (Babchishin et al., 2012).

Actuarial risk assessment tools must predict the risk of sexual recidivism equally among Indigenous and non-Indigenous people who have sexually offended, to ensure the level of intervention is consistent with the level of risk. Smallbone and Rallings (2013) examined the emerging role of race in predicting sexual recidivism in Australia. Participants were adult males ($n = 67$ Indigenous; $n = 320$ non-Indigenous) released from prison, with

police record searches conducted between 15 and 53 months post-release ($M = 29$ months). Indigenous participants were underrepresented in the low-risk cohort, scoring significantly higher than non-Indigenous people for both the Static-99 ($M = 4.04$ v. $M = 2.89$, $p \leq .001$) and the Static-99R ($M = 3.72$ v. $M = 2.22$, $p < .001$). Follow-up data produced a non-significant finding, but suggested Indigenous people are twice as likely to reoffend sexually than non-Indigenous people (9.0% v. 4.1%). Indigenous people were significantly more likely to be re-arrested for non-sexual violence (28.4% v. 1.9%, $p \leq .001$), any violent offence including sexual offending (37.3% v. 5.9%, $p \leq .001$) or any other offence (58.2% v. 21.6%, $p \leq .001$). Smallbone and Rallings (2013) calculated the AUC values and 95% CIs for Static-99 and Static-99R predictions of sexual and non-sexual violent recidivism. The Static-99 had a slightly lower predictive accuracy for Indigenous people when compared with non-Indigenous people for sexual (AUC = .76 v. .82) and non-sexual but violent recidivism (AUC = .59 v. .64). Finally, the Static-99R was unable to effectively predict sexual (95% CI = [.45, .77]) or non-sexual but violent (95% CI = [.48, .78]) recidivism, with AUC CIs receding below threshold limits. These findings challenge the suitability of the Static-99/R for Indigenous people in Australia and raise questions regarding the over-prescribing of treatment for Indigenous people. It is, therefore, important that research is undertaken to document the types of risk assessment tools that are utilised in Australia, something this thesis sets out to achieve.

In Australia, few studies have examined the predictive accuracy of the Static tools for Indigenous people (Allan et al., 2006; Smallbone & Rallings, 2013; Spiranovic, 2012). Table 2.3 presents an overview of statistical data. These studies have reported modest findings, although Spiranovic (2012) stated that Static tools failed to demonstrate an acceptable level of prediction for Indigenous people in Western Australia (Static-99; AUC = .57, 95% CI = [.47, .67]; Static-99R; AUC = .58; 95% CI = [.48, .67]). The dearth of literature within the

Australian context limits scholars' abilities to provide an empirical conclusion as to whether current actuarial risk assessment tools can be effective in predicting risk among Indigenous populations in Australia. Shepherd and Lewis-Fernandez (2016) suggested the pessimistic findings may be a result of the small sample sizes utilised in Australian studies, combined with samples comprised predominantly of non-Indigenous people. However, one instrument—the 3-predictor model—has been developed for Indigenous people in Australia and shown to have considerable predictive accuracy. The model is based on three areas that underpin risk for Indigenous Australians: unrealistic long-term goals, unfeasible release plans and poor coping skills (Allan & Dawson, 2002). According to Allan et al. (2006), the 3-predictor model had the highest level of predictive accuracy for Indigenous men convicted of a sexual offence (AUC = .84) when compared with the Static-99 (.78), RRASOR (.71) and the Violent Offender Treatment Program Risk Assessment Scale (.54). However, until a survey of actuarial tools used for Indigenous people receiving treatment for sexual offending is conducted, including evaluation of how effective these tools are, the criminal justice system should interpret the results of these tools for Australian Indigenous people with great caution.

Canadian academics have investigated the use of actuarial risk assessment tools in depth by reviewing the literature and bringing together the findings of multiple studies. Using five independent Canadian datasets, Babchishin et al. (2012) compared Indigenous ($n = 319$) and non-Indigenous ($n = 1,269$) samples with Static-99/R scores. Indigenous people had significantly higher scores for the Static-99 ($M = 3.90$ v. $M = 3.51$; AUC = .562, $p \leq 0.05$; CI = [.529, .595]) and Static-99R ($M = 4.01$ v. $M = 3.13$; AUC = .600, $p \leq 0.05$; CI = [.567, .632]) than non-Indigenous people. Because the study used multiple datasets, the authors were able to aggregate AUC values using fixed-effect and random-effect meta-analyses. The fixed-effect and random-effect total scores for the Static-99R analysis demonstrated significance in predicting sexual recidivism for Indigenous people (AUC = .713; 95% CI = [.639, .787]) and

was also consistent for the Static-99 (AUC = .698; 95% CI = [.624, .772]). The within-level Q-values for both the Static-99R and Static-99 (3.93, 2.02) were not significant, indicating predictive accuracy between the individual samples utilised in the meta-analysis. In comparison with the Australian studies (Allan et al., 2006; Smallbone & Rallings, 2013; Spiranovic, 2012), the findings from the Canadian samples (Babchishin et al., 2012) illuminate the potential negative ramifications of using risk assessment tools with no empirical evidence regarding cross-cultural suitability.

These concerns regarding the applicability of actuarial tools to varying cultural groups has been highlighted by scholars in forensic psychological assessment (Allan, 2015, 2018, 2020; Myer, 2019). Myer (2019) provided evidence stating the Static-99R is unable to effectively predict new sexual reconvictions in a sample of Native Americans ($N = 123$; AUC = .610; 95% CI = [.468, .753]). Moreover, Allan (2015, 2018, 2020) expressed concerns regarding the use of the Static-99 tool by Australian Justice Department employees, stating it has not been validated for Indigenous men. Countries with large Indigenous—but not majority—populations might not have adequate resources because tools are generally created for the white majority population (Allan, 2015). Consistent with Allan, an Australian judge (see *DPP v Mangalamara* [2007]) had expressed their concern for the reliability of the instruments used by psychologists when assessing Indigenous people who have sexually offended. Therefore, given the limited research conducted in Australia (Allan et al., 2006; Smallbone & Rallings, 2013; Spiranovic, 2012), it is argued that these Static tools should not be used with Indigenous people who have sexually offended. However, Allan (2018) also states that taking an approach where risk prediction tools are not used because of limited empirical evidence would ignore psychologists' broader responsibility to contribute to the protection of members of society. This conflict highlights the difficult balance between the principles of community protection and ethical offender rehabilitation.

The importance of understanding the effects of actuarial risk assessment tools for Indigenous people is not specific to Australia, as evidenced by a recent ruling by the Supreme Court of Canada. In *Ewert v Canada* (2015), an Indigenous federal inmate argued that the use of risk assessment tools by the Federal Canadian Prison System was harmful because of discrimination. Although the court did not rule the risk assessment tools harmful to Indigenous people, they did conclude that the federal prison system's legal obligations to Indigenous people had been breached through not effectively researching the use of the risk assessment tools. The court strongly cautioned against the use of five risk assessment tools (Hare Psychopathy Checklist Revised [PCL-R], Violence Risk Appraisal Guide, Sex Offender Risk Appraisal Guide, Violence Risk Scale—Sex Offender [VRS-SO]), including the Static-99 (*Ewert v Canada* [2015]). This ruling shows a clear message: there is no strong empirical conclusion regarding the use of actuarial risk assessment tools for Indigenous populations in Canada.

Given these inconclusive findings, future research is needed to understand the types of actuarial tools utilised—both in Canada and more broadly—for Indigenous people who are entering sexual offender treatment programs. At best, these risk assessment tools show modest findings for sexual recidivism. Indeed, there is limited empirical evidence favouring their use and some specific court rulings against their application (*DPP v Mangalamara* [2007]; *Ewert v Canada* [2015]). To gain a knowledge-base of tools that are used in practice, future research needs to explore studies that provide treatment to Indigenous people who have sexually offended in addition to surveying organisations where studies have not been conducted. Only then can researchers work towards understanding the validity of actuarial tools for use with different ethnic populations, particularly Indigenous populations who are over-represented in sexual offending statistics.

Table 2.3*Summary Descriptions of Previous Studies of Indigenous Populations*

Sample	Study	Sample Size	Mean Risk Score	AUC		
				Static-99	Static-99R	RRASOR
Australia						
Allan et al. (2006)	Indigenous Australians	347				.65
	Non-Indigenous					
Smallbone & Rallings (2013)	Indigenous Australians	67	Static-99 = 4.04 Static-99R = 3.72	.76 (.61–.91)	.61 (.45–.77)	
	Non-Indigenous		Static-99 = 2.89 Static-99R = 2.22			
Spiranovic (2012)	Indigenous Australians	162		.57 (.47, .67)	.58 (.48.67)	
	Non-Indigenous					
America						
Myer (2019)	Native Americans	123			.610 (.468, .753)	
	Non-Indigenous					
Canada						
Babchishin et al., (2012)	Indigenous Canadians	319	Static-99 = 3.90 Static-99R = 4.01	.698 (.624, .772)	.713 (.639, .787)	
	Non-Indigenous		Static-99 = 3.51 Static-99R = 3.13			

Note. * $p \leq .05$, ** $p \leq .01$.

2.1.1.3 Treatment Dosage

Practitioners and program facilitators are tasked with providing the correct treatment ‘dosage’ when addressing the risk principle. The required treatment level is ambiguous because of the need to match it with the risk level of the person who has sexually offended. Higher intensity programs provided to low or moderate-risk offenders can increase the participant’s level of risk (Hanson & Yates, 2013; Lovins et al., 2009). Lowenkamp and Latessa (2004) have suggested two reasons for this occurrence. First, exposing low-risk offenders to high-risk treatment can enhance negative social learning through contact with other offenders, thereby reinforcing antisocial attitudes and beliefs. Second, low-risk offenders participating in high-intensity programs can disrupt prosocial networks and opportunities (Lowenkamp & Latessa, 2004). Given the fiscal constraints of many criminal justice systems internationally, it is important to direct scarce resources to where they will be most effective (Wakeling et al., 2012). Literature exploring factors influencing treatment dosages for people who have been charged with or convicted of, or who are at risk for sexually offending, is limited. To effectively address the risk principle, future research is, therefore, required to explore the length and intensity of treatment for sexual offenders. This current project addresses this need.

Incorrect treatment dosage can reduce participant enthusiasm and increase the risk of treatment burnout, resulting in participants terminating the therapeutic process. Marshall and colleagues (2006) recommended that adult males imprisoned for sexual offending remain in treatment for approximately four to six months to ensure participant enthusiasm was maintained and fatigue was reduced. Treatment was designed for three risk categories: low-risk, moderate to high-risk and high-risk offenders. Given the disparity in participant levels of risk, the time participants engage in the program varied and an open-ended approach to treatment was utilised. Under this approach, recipients of treatment engaged with the program

at a pace desirable to them and until the treatment goals are achieved (Marshall et al., 2006). Therefore, lower-risk participants remained in treatment for approximately four months, with the more problematic high-risk cohort engaging in treatment for approximately six months. Participants underwent two 2.5 hour group therapy sessions, with limited individual counselling over a four-month period. The authors did not quantify the association between treatment dosage and recidivistic outcomes, resulting in conclusions developed through clinical opinions and not being empirically based. However, Pickett et al. (2013) noted considerable differences in the length of treatment for people who have sexually offended in Canada and the US. Community programs were substantially shorter in Canada ($M = 12.14$; $SD = 11.29$) than the US ($M = 24.71$; $SD = 13.67$). This discrepancy was also consistent in residential treatment (Canada: $M = 4.50$; $SD = 2.27$; US: $M = 29.93$; $SD = 28.49$) and may be a result of punitive legislation in the US.

Punitive legislation has been enacted in the US because of the fear and public outcry from community members towards those who have sexually offended. Therefore, results from Pickett et al. (2013) may reflect the political punitiveness, stigmatisation and public anxiety associated with sexual offences in the US. According to Pickett and colleagues (2013), ‘With the possible exception of terrorists, sex offenders in the US experience a greater degree of punishment and restriction than any other offender group, non-violent or violent’ (p. 729). Punitiveness can be illustrated by the differences in punishment for serious crimes. For example, unlike people convicted of murder and armed robbery, people who have sexually offended (i) can be detained involuntarily for community protection purposes beyond their original sentence date by the US Civil Commitment Laws; (ii) are required to be registered with authority post-imprisonment, with the potential for their name, address and photograph to be made available to the public; (iii) are restricted to where they can live; and (iv) can be forced to undergo chemical castration (Levenson & D’Amora, 2007; Levenson et al., 2007;

Mancini et al., 2013; Pickett et al., 2013). Research has found that the public also support retributive and stigmatising sexual offender laws even when evidence does not demonstrate those policies to be effective in managing people with sexual offences (Levenson et al., 2007; Levenson et al., 2014). Thus, it is important for academics and practitioners to focus on best-practice methods produced by empirical research when determining the correct treatment length, rather than over-treating individuals to align with best outcomes for political ideologies.

Punitive legislative policies, negative public attitudes and disregard for treatment of people who have sexually offended may cause neglect for administration of the risk principle. Consequently, the criminal justice system has moved towards treating people who have sexually offended as a homogenous group, with the belief that all people who have sexually offended are at high risk-to-reoffend (Lovins et al., 2009). It is important to acknowledge that low risk does not equate to no risk (Wakeling et al., 2012). However, it is now recommended that low-risk sexual offenders are provided with minimal or no treatment, because these offenders often have mild pathologies. These mild pathologies are less associated with criminal behaviour and are not specific to offending—for example, anxiety, depression, distress and problems with self-esteem (Andrews et al., 2006; Cortoni, 2009; Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005). According to Bonta and Andrews (2003), wellbeing issues are not criminogenic and, therefore, should not be the focus of offender rehabilitation programs if the programs intend to reduce reoffending.

The notion that people who have sexually offended are over-prescribed treatment and the negative implications this can have on the rehabilitation process has support from research findings. Mailloux et al. (2003) coded a sample of participants ($N = 337$) according to the highest intensity program they had received (low, moderate or high intensity). Data were then analysed in accordance with the number and types of treatment received. Post hoc tests

indicated that those in the moderate-intensity cohort scored significantly higher on the PCL-R ($M = 17.42$; $SD = 7.52$ v. $M = 11.17$; $SD = 4.53$; $p \leq .001$) and the Level of Supervision Inventory ($M = 21.48$; $SD = 9.25$ v. $M = 13.03$; $SD = 6.04$; $p \leq .001$) than the low-intensity cohort. However, a 3×3 between-subjects MANOVA indicated the low-intensity group had a slightly higher engagement ($M = 1.51$; $SD = .65$) than the moderate-intensity group ($M = 1.49$; $SD = .70$). The low-intensity group received a similar number of cognitive skills programs to those in the high-intensity group ($M = 1.16$; $SD = 1.24$ v. $M = 1.66$; $SD = 1.66$; Mailloux et al., 2003). Regarding criminogenic need and actuarial risk, these findings suggest the low-intensity group was over-treated, which may inherently increase post-treatment recidivism as identified by other researchers (Guidry, 2009; Lovins et al., 2009). With the continued primary goal of forensic treatment to reduce post-treatment recidivistic behaviours, the question becomes one regarding the appropriate allocation of limited criminal justice resources (Mailloux et al., 2003; Wakeling et al., 2012).

Later, in 2005, Marshall and Yates criticised the works of Mailloux et al. (2003), stating that the data fails to reflect the correct dosage levels provided by the treatment program. This criticism came from results in the national guidelines for treatment dosage in the Ontario region, which details the levels of treatment required for high, moderate and low-risk sexual offenders. These guidelines are consistent with standards actively used by His Majesty's Prison Service in providing treatment to those with a sexual offence throughout England and Wales. Thus, if true, Mailloux et al.'s results would have significant ramifications for the treatment of people who have sexually offended throughout Canada, England and Wales.

To evidence their comments, Marshall and Yates (2005) multiplied the dosage level for each risk group by the number of programs completed (as stated in Mailloux et al., 2003). This produced treatment dosages in the following categories: low risk (36–91 hours),

moderate risk (238–298 hours) and high risk (702–1,053 hours). These differences are determined by the number and length of sessions and further increase when considering participation in other treatment programs: the Cognitive Skills Program and the Offender Substance Abuse Prevention Program. There are clear differences between the true dosage level prescribed to each risk category, contradicting the observations and conclusions put forth by Mailloux et al. (2003). These findings within the treatment dosage literature illustrate the inadequacies and difficulties in determining the correct level of treatment required for people who have sexually offended and who present with varying levels of risk.

In recent years, treatment dosage has come to the attention of scholars internationally. Smid et al. (2015) and Yates (2013) have, for instance, commented on the scarceness and inconsistencies regarding recommendations for the preferred treatment durations for people who have sexually offended in the US and the Netherlands. Although a paucity of information exists, there may be a threshold for treatment where effects diminish over a certain timeframe. Makarios et al. (2014) examined how an offender's risk level moderates the relationship between treatment dosage and recidivism in a sample of non-sexual offenders ($N = 903$). Using a hazard ratio, the authors demonstrated that medium to high-risk offenders were 42% less likely to reoffend when completing 200–249 hours of treatment in comparison to 150–199 hours of treatment. Therefore, treatment has a minimal effect when the number of contact hours are reduced; however, treatment effects did diminish when medium to high-risk offenders engaged in treatment for 300 or more hours (Makarios et al., 2014). Schmucker and Lösel (2015) contradicted these findings in their meta-analysis of sexual offender treatment studies, reporting a non-significant negative relationship between length of treatment and reduced reoffending ($r = -.15$, $p = .47$). Even when controlling for variables such as different settings, outliers or offender risk, there was no substantial change.

Although a meta-analytic approach may seem a feasible methodology to understand this body of research, this method is limited because key variables such as ‘treatment’ and ‘dosage’ must be consistent in definition, which is unlikely (Day et al., 2019). Treatment may also be conceptualised as including aftercare services and maintenance programming. Moreover, treatment intensity, when matched to an offender’s risk level, is not limited to categories such as high risk (more treatment), moderate risk (some treatment) and low risk (minimal or no treatment). Rather, it may include variables such as differing length and frequency of sessions, the participant to facilitator ratio, duration of treatment, complexity of treatment targets, depth of treatment discussion and assignments, and aftercare and supervision requirement (Day et al., 2013).

Before any meaningful comparisons between studies can be made, future research needs to take these definitional issues into consideration. In addition to this, there needs to be a focus on the correct dosage of treatment for Indigenous people who have sexually offended and how this compares to non-Indigenous people. Effectiveness may also be different for Indigenous people participating in Western treatment, in comparison with programs of cultural relevance. Future research should, therefore, investigate treatment dosage requirements for Indigenous people engaging in different types of treatment for sexual offending and across varying levels of risk. This is addressed in the first study of the current thesis through a systematic review of available literature to summarise findings from studies regarding treatment length for Indigenous people. Moreover, the second study investigates the effects of treatment lengths on recidivism post-treatment via meta-analysis. Finally, the third study used surveys of treatment program providers in Australia to understand approaches to addressing the risk principle in more depth, thereby addressing a gap identified in the literature.

2.1.2 The Need Principle

The need principle stipulates the emphasis of treatment should be on addressing the offender's individual life problems. These are risk factors and focus needs to be on the characteristics that are conceptually and empirically associated with persistence of crime (Hanson et al., 2009; Hanson & Morton-Bourgon, 2009; Hanson & Yates, 2013). When characteristics associated with recidivism are targeted, treatment programs are more likely to be effective and, therefore, result in reduced recidivism (Kroner & Yessine, 2013). Risk factors are categorised into static and dynamic risks (Andrews & Bonta, 2010; Bonta & Andrews, 2007). Static factors are unchangeable features from an individual's history and serve as the foundation for understanding risk. Well known static risk factors include age at first offence, offence history, diversity of offences, number of victims, victim age and gender. As previously discussed in section 2.1.1, static risk factors are predominantly used in the prediction of risk. Dynamic factors, in contrast, are problematic behavioural or psychological features that can change. Such features include distorted and deviant sexual interests, deficits in social and intimacy skills, poor emotional, sexual and behavioural regulations, as well as offence-facilitating beliefs (Andrews & Bonta, 2010; Bonta & Andrews, 2007; Hanson & Yates, 2013; Mann et al., 2010; Marshall, 2018). According to Bonta and Andrews (2007), dynamic factors are commonly known as 'criminogenic needs' and should be the focus of treatment programs.

2.1.2.1 Criminogenic Needs

To cease problematic sexualised behaviours, two broad categories of criminogenic needs require attention: general criminality (antisocial orientation and lifestyles) and sexual criminality (deviant sexual interests; see Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005; Hanson & Yates, 2013; Quinsey et al., 1995; Roberts et al., 2002).

Individuals who sexually offend, like general offenders, commit serious legal violations and

share common characteristics such as lifestyle instability, negative peer influences and conflicts with intimate partners (Hanson & Morton-Bourgon, 2019; Hanson & Yates, 2013). However, certain characteristics are unique to people who have sexually offended. These can include deviant sexual interests, poor self-regulation, sexual preoccupations, offence-supportive cognitions and emotional congruence with children (Hanson & Morton-Bourgon, 2005; Hanson & Yates, 2013; Kanters, 2017; Mann et al., 2010). Therefore, these two factors are the primary criminogenic needs of sexual offenders (Kanters, 2017). Deviant sexual interests are enduring attractions to illegal and highly unusual sexual acts, such as sexual contact with children, rape and fetishism. In addition, antisocial orientation refers to antisocial personality and traits and a history of rule violations (Hanson & Morton-Bourgon, 2005).

The offending profiles of people who have sexually offended are imperative for understanding the effects of dynamic risk variables on sexual recidivism. Hanson et al. (2007) used the Stable-2000 (a 16-item instrument) to review the dynamic risk factor profiles of 798 males who had sexually offended and commenced a period of community supervision. The AUC values for each item were calculated to highlight those variables of significant value for treatment, with seven of the 16-items demonstrating a significant linear relationship. These items were negative social influences (AUC = .59; 95% CI = [.51, .66]), hostility towards women (AUC = .58; 95% CI = [.50, .66]), rejection or loneliness (AUC = .60; 95% CI = [.52, .66]), lack of concern for others (AUC = .58; 95% CI = [.50, .66]), lack of cooperation with supervision (AUC = .58; 95% CI = [.50, .66]), impulsive acts (AUC = .64; 95% CI = [.57, .71]) and poor cognitive problem-solving (AUC = .60; 95% CI = [.53, .68]). In a larger sample ($k = 82$; $N = 29,450$), Hanson and Morton-Bourgon (2005) analysed the usefulness of dynamic risk factors in treatment using the d -value. According to Cohen (1988), a d -value of .20 is considered small, .50 medium and .80 large. Moreover, when the 95% CI for the d does not contain a 0, it can be considered statistically significant at $p < .05$. The authors found

seven promising dynamic factors for behaviour treatment change: any deviant sexual interests ($d = .31$; 95% CI = .10; $k = 16$; $n = 2,769$), sexual preoccupations ($d = .39$; 95% CI = .16; $k = 6$; $n = 1,119$), antisocial personality disorder ($d = .21$; 95% CI = .10; $k = 12$; $n = 3,267$), psychopathy as measured by the PCL-R ($d = .29$; 95% CI = .09; $k = 13$; $n = 2,783$), general self-regulation problems ($d = .37$; 95% CI = .11; $k = 15$; $n = 2,411$), employment instability ($d = .22$; 95% CI = .09; $k = 15$; $n = 5,357$) and hostility ($d = .17$; 95% CI = .13; $k = 9$; $n = 1,960$). These studies outline important dynamic risk variables that require targeted treatment in samples of people who have sexually offended.

Hanson and colleagues (2009) provide a unique contribution to understanding the dynamic risk variables that treatment should target to reduce sexual recidivism while also endorsing the targeting of general antisocial issues. However, as Hanson and Morton-Bourgon (2005) make clear, several misleading variables have been identified as having minimal or no relationship with sexual recidivism but that are commonly addressed in treatment for people who have sexually offended: psychological distress ($d = .03$; 95% CI = .13; $k = 6$; $n = 1,810$), denial of the sexual offence ($d = .02$; 95% CI = .17; $k = 9$; $n = 1,780$), victim empathy ($d = -.08$; 95% CI = .13; $k = 5$; $n = 1,745$) and low motivation for treatment intake ($d = -.08$; 95% CI = .13; $k = 12$; $n = 1,786$). These results question some forensic treatment targets within sexual offender programs, insofar as treatment should target criminogenic needs that are associated with reoffending (Hanson & Yates, 2013). Denial of sexual offending, whether defined as minimisation of the offence or categorical denial, has continued to produce an inadequate correlation to improved treatment outcomes (Harkins et al., 2010; Yates, 2009; Zara et al., 2020). It is also reported that denial of sexual offending is common among people who have sexually offended at every stage of the criminal justice process, from police investigations to parole reviews (Dietz, 2020). Moreover, targeting victim empathy and low motivation for treatment intake have continued to produce little

scientific evidence as to treatment effectiveness (Hanson & Yates, 2013). Although psychological problems have been viewed as wellbeing issues and not criminogenic (Andrews et al., 2006; Bonta & Andrews, 2003; Cortoni, 2009; Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005), they may represent as a risk factor for sexual offending when severe.

Psychological issues presenting as risk factors for sexual offending have been theoretically underpinned in the literature. The Self-Derogation Theory of Delinquency (Kaplan, 1975, 1980, 2001) postulated that those with negative experiences during critical developmental years will develop low self-esteem and thus engage in self-derogation. The theory is grounded in the idea that members of society have a basic need to be viewed in a positive manner and avoid negative self-revaluations (W. A. Mason, 2001). Consequently, individuals with negative self-esteem become alienated from conventional society and are motivated to restore a positive self-regard (Whiteleather, 2012). This may be achieved by meeting emotional needs through exploitative sexual behaviours, maximising the feeling of power, control or perceived intimacy, and minimising the feelings of depression or hopelessness from negative self-regard (Jeglic et al., 2012). When deviant behaviour is reinforced by a decrease in depression, the individual may learn to pair the behaviour with positive feelings (Jeglic et al., 2012; Whiteleather, 2012). These findings oppose Hanson and Morton-Bourgon's (2005) assertion that psychological deficits should not be the primary focus of treatment for people who have sexually offended.

Nonetheless, several studies (Hanson & Harris, 2000; Heffernan & Ward, 2015, 2020; Hudson et al., 2002; Scoones et al., 2012) have shown reduced levels of recidivism when programs target sexual deviancy, problematic sexualised attitudes, intimacy deficits, cognitive skills deficits, antisocial orientation and offence-supportive beliefs, self-regulation problems, substance abuse and cognitive transformation (creation of a new, more adaptive narrative

identity). Thus, extensive research using varying analytic approaches has provided empirically sound evidence of criminogenic variables that require the attention of treatment to reduce recidivism. What is less clear are the criminogenic needs for Indigenous people who have sexually offended and the variables that should be the primary target of treatment. As a result of this, Ellerby and MacPherson (2002) reviewed the profiles of Indigenous people in Canada who had attended the Native Clan Organisation's Forensic Behavioural Management Clinic (FBMC) for sexual offending.

The authors used descriptive statistics to assess differences between Indigenous (North American Indian $n = 99$, 32.7%; Métis $n = 21$, 6.9%, Inuit $n = 1$, 0.3%) and non-Indigenous ($n = 182$, 60.1%) clients. In comparison to the non-Indigenous group, Indigenous people had higher levels of instability during developmental years, such as separation from parents, exposure to general criminal activity, domestic abuse, neglect and sexual abuse. This finding has been attributed to the pervasive and systemic racism that perpetuates these conditions. Comparisons were also made regarding the levels of sexual deviance between Indigenous and non-Indigenous cohorts. Indigenous people, when compared with non-Indigenous clients, reported lower levels of sexual deviance, including coercive sexual fantasies and a wide range of paraphilias (Ellerby & MacPherson, 2002). Moreover, Helmus et al. (2012) reported no statistical significance when testing for self-regulation between Indigenous and non-Indigenous Canadians. Indigenous people scored significantly higher for impulsive acts ($M = .78$, $SD = .72$; $AUC = .650$, 95% $CI = [.587, .713]$), poor cognitive problem-solving ($M = 1.06$, $SD = .73$; $AUC = .635$, 95% $CI = [.573, .696]$) and showed a significantly higher probability of non-compliance with a supervision order ($M = .69$, $SD = .81$; $AUC = .627$, 95% $CI = [.558, .695]$). Canadian Indigenous people who have sexually offended may, therefore, benefit from treatment tailored to target these variables in addition to other criminogenic needs. The two groups were deemed a moderate risk-to-reoffend, with the Indigenous cohort

recording a significantly higher total score ($M = 8.77$, $SD = 4.91$ v. $M = 6.92$, $SD = 5.06$), with positive accuracy in the prediction of risk ($AUC = .618$; 95% CI = [.558, .679]).

It is important to conceptualise that moderate or high-risk offenders are not identified as moderate or high risk because of a single criminogenic need that is high, but rather from a cluster of criminogenic needs (Lovins et al., 2009). Indigenous people may score higher than non-Indigenous people on predictive risk tools because of the presentation of additional criminogenic needs. Literature regarding the profiles of Indigenous people who have sexually offended in Canada is extensive and, to a degree, consistent in reported findings (Ellerby & MacPherson, 2002; Helmus et al., 2012; Nahanee, 1996; Rastin & Johnson, 2002). In respect to offence characteristics, Indigenous adults in Canada more commonly victimise females (Ellerby & MacPherson, 2002; Nahanee, 1996; Rastin & Johnson, 2002) and people from their own cultural background (Ellerby & MacPherson, 2002; Nahanee, 1996). They are also likely to have consumed alcohol or drugs during the commission of the sexual offence (Ellerby & MacPherson, 2002) and to target adolescents or adults as opposed to children (Ellerby & MacPherson, 2002; Rastin & Johnson, 2002).

Like their adult counterparts, Indigenous young people ($n = 102$), in comparison to non-Indigenous young people ($n = 257$), were significantly more likely to have histories of substance abuse (56.7% v. 28.6%; $p < .001$) and to have used an illicit substance at the commission of their index sexual offence (25.0% v. 8.9%; $p < .01$; Rojas & Gretton, 2007). Indigenous young people also have significantly higher rates of Foetal Alcohol Spectrum Disorder (26.9% v. 4.3%; $p < .001$), histories of childhood sexual (65.5% v. 47.7%; $p < .01$) and physical victimisation (61.4% v. 46.5%; $p < .05$), a learning difficulty (51.7% v. 36.7%; $p < .05$) and an unstable living environment (79.3% v. 62.9%; $p < .05$). In comparison to Indigenous adults (Ellerby & MacPherson, 2002; Rastin & Johnson, 2002), young Indigenous and non-Indigenous people tended to victimise people under the age of 12 years (Rojas &

Gretton, 2007). These results serve as a foundation for Canadian Indigenous-specific criminogenic needs that require attention in treatment for sexual offending.

In New Zealand, differences were observed between Māori youth (First Nations New Zealand; $n = 75$) and Pākehā youth (white New Zealand European; $n = 75$) attending community-based treatment for sexual offending (Lim et al., 2012). Compared with Pākehā, Māori experienced higher rates of physical abuse (61.3% v. 36.0%), emotional abuse (53.3% v. 36.0%) and neglect (52.0% v. 33.3%), with no differences in sexual abuse (40.0% v. 40.0%). Māori were also significantly more likely to present with additional delinquent behaviours ($M = 8.72$, 95% CI = [7.52, 9.98] v. $M = 5.95$, 95% CI = [4.72, 7.18]; $p < .003$), as coded by the Child Behaviour Checklist (developed by Achenbach, 1991). Comparatively, Pasifika people (Pacific Islands region, including the Cook Islands, Tonga; $n = 44$), in comparison to Pākehā ($n = 44$), present with symptoms of anxiety and depression (36.4% v. 15.9%; $p < .029$) and were more inclined to fall within a borderline or clinical range for social withdrawal and internalising and externalising problems (Ioane et al., 2021). These results show that different Indigenous cultural groups within the same region require attention directed toward varying criminogenic factors when receiving treatment for sexual offending and that a one-size-fits-all approach should not be taken (Lambie & Seymour, 2006). Although the present thesis investigates the criminogenic needs of Indigenous people, future research should ensure Indigenous people are viewed as a heterogeneous demographic.

In Australia, national and state inquiries have described the concerning rate of sexual assault against Indigenous young people, particularly in remote communities (Aboriginal and Torres Strait Islander Women's Task Force on Violence, 2000; Adams et al., 2020; P. Anderson & Wild, 2007; NSW Department of the Attorney General, 2005). The New South Wales Ombudsman (2012) stated that many alleged perpetrators were Indigenous adults or youth, either known to the person harmed or residing within their neighbourhood or

community. There are several variables in these reports that are recognised as factors contributing to the sexual victimisation of Indigenous children and youth. The most notable examples include the breakdown of Indigenous culture and customary lore; the vulnerability of children associated with familial neglect, substance abuse, lack of education and work skills; early exposure of children to sexual activity and a reluctance to report abuse (P. Anderson & Wild, 2007). However, the report has been criticised for its paucity of evidence-based policy or hearing the voices of Indigenous women (Davis, 2007), which led, in turn, to greater incarceration of Indigenous people, more children removed from families and an increase in youth self-harm and suicide. Little research has systematically evaluated the contributions these aforementioned factors may or may not have on the involvement of Indigenous young people in sexual offending (Adams et al., 2020; Davis, 2007). It is, therefore, paramount to understand this knowledge deficit by comparing the life experiences of Indigenous and non-Indigenous people to establish similarities or unique differences that can assist in preventing and addressing sexual offending. This study aims to achieve this by conducting a narrative synthesis of available literature on Indigenous people who have attended treatment for sexual offending.

2.1.3 The Responsivity Principle

The responsivity principle focuses on the interaction between treatment and the participant (Andrews & Bonta, 2010). To achieve a positive outcome, the treatment program must be tailored to the participant's specific characteristics and delivered in a style and mode that is consistent with the ability and learning style of the participant (Andrews & Bonta, 2010; Hanson & Yates, 2013). Responsivity is divided into two themes: general responsivity and specific responsivity. The general responsivity principle stipulates that people who offend will benefit from cognitive behavioural and cognitive social learning approaches (Andrews & Bonta, 2010). Cognitive behavioural approaches to treatment are commonly used with young

people and adults who sexually offend and are powerful influences for change that involve strategies including modelling, reinforcement, role-playing, skills building, modification of thoughts and emotions through cognitive restructuring and practising new, low-risk alternative behaviours repeatedly in a variety of high-risk situations (Andrews & Bonta, 2010; Brandes & Cheung, 2009; Hanson et al., 2002; Kim et al., 2016; Lösel & Schmucker, 2005; Moster et al., 2008; Schmucker & Lösel, 2015). Moreover, the specific responsivity principle states that there are many particular responsivity considerations and that, by identifying individual personality and cognitive-based styles, treatment can be adequately matched to the client (Andrews & Bonta, 2010). These specific responses to the treatment needs of an individual can be achieved through the successful matching of an offender's intra-individual characteristics, particularly when there are ties to culture.

2.1.3.1 Addressing Problematic Sexualised Behaviours

For treatment to be effective, the treatment program outline or therapist's approach to treatment must be in accordance with the participant's intra-individual characteristics. However, even when treatment is offered in line with the risk principle, addresses the participant's criminogenic needs and is delivered in an environment conducive to change, various factors specific to the individual will play an important role in determining whether change occurs (Harkins & Beech, 2007). Cognitive behavioural therapy (CBT) is the most widely used treatment for people who have sexually offended worldwide, serving as the foundation for various therapeutic interventions designed for both young people and adults (Beck Institute, 2022; Brandes & Cheung, 2009; Kim et al., 2016; McGrath et al., 2010; Moster et al., 2008). Changing an individual's thoughts and beliefs is the premise of CBT, ensuring there are alterations in the way the participant behaves or experiences emotions. The participant engaging with CBT experiences various processes that are designed to assist in examining the relationship between thoughts, subsequent emotions and behaviours (Moster et

al., 2008). These processes include techniques to restructure incorrect cognitions, behavioural rehearsals and role-play (Beck & Beck, 1995). Moreover, participants learn how to differentiate between positive and negative thoughts and behaviours, using strategies such as problem-solving and decision-making, identifying and evaluating automatic thoughts, identifying emotions and active monitoring and scheduling (Moster et al., 2008; Ranker, 2022).

For the treatment of people who have engaged in a sexual offence and to reduce or cease sexual recidivism, CBT is guided by the principles of risk, need and responsivity. The incorporation of the risk, need and responsivity principles into CBT has demonstrated lowered sexual reoffending post-treatment (Hanson et al., 2009). An important objective of cognitive behavioural programs is instilling a sense of self-worth into the participant, resulting in a prosocial and constructive life post-intervention (Moster et al., 2008; Ranker, 2022). According to Kim et al. (2016) and Moster et al. (2008), the therapeutic approach uses problem-focused methods to assist in the learning of new skills and, therefore, the development of competencies in maintaining appropriate behaviours.

The Sex Offender Accountability and Rehabilitation Program in North Carolina, which has utilised CBT since 1991, was evaluated to understand the effects of treatment longitudinally (Grady et al., 2017). Treatment completers ($n = 240$) were compared with an untreated group ($n = 3,568$) over a risk-to-reoffend period ranging from 4 to 19 years. Minor differences between the two groups were reported for sexual recidivism (4.4% v. 4.7%), with the treatment group less likely than the untreated group to violently reoffend (3.0% v. 6.7%) or engage in a non-violent offence post-treatment (25.6% v. 41.2%). Although the small treatment group may have affected the statistical output for sexual recidivism, the authors did not state whether the untreated group received treatment elsewhere. CBT's effectiveness in reducing post-treatment sexual recidivism has been demonstrated in several studies. Olver et

al. (2020) found differences in the sexual recidivism rates between two CBT programs—the Rockwood prison-based program ($N = 579$; $OR = .23$, $p < .001$) and the Correctional Services of Canada Sex Offender Treatment Program (SOTP; $N = 627$; $OR = .59$, $p < .054$)—when compared with an untreated comparison group of people who had sexually offended ($N = 107$). The results are based on effect sizes where a value below 1.0 indicates odds of decreased recidivism. Findings indicate that prison-based CBT programs designed for people who had sexually offended show effectiveness even among some of the most at-risk offenders. The two programs are similar in their aims: overcome cognitive distortions, eliminate deviant sexual interests, raise victim awareness and instil empathy for victims, increase social and intimacy competence, along with the development of relapse plans. However, SOTP remained consistent in its approach throughout the evaluation period (1991–2001), whereas the Rockwood program continued to develop and advance according to clinical experience and emerging evidence.

This continued development of the Rockwood program may explain the differences in treatment effects, despite it and SOTP offering the same therapeutic intervention. Marshall and Marshall were affiliated with developing, directing and providing treatment at the Rockwood treatment program. Previous research has shown author affiliation to biased findings through the enhancement of treatment integrity resulting in inflated results (Lösel & Schmucker, 2005; Schmucker & Lösel, 2008, 2015, 2017). Therefore, research investigating the effectiveness of treatment should take into consideration not only the biasing effects of authors who are affiliated with treatment, but also the ethicality of such an approach. This current project accounts for the biasing effect of authors in treatment in studies 1 and 2, as well as considering various other biasing effects on treatment and statistical outcomes.

Many evaluations of treatment programs for people who have sexually offended at all risk levels have supported the use of CBT, whether provided in prison or in the community

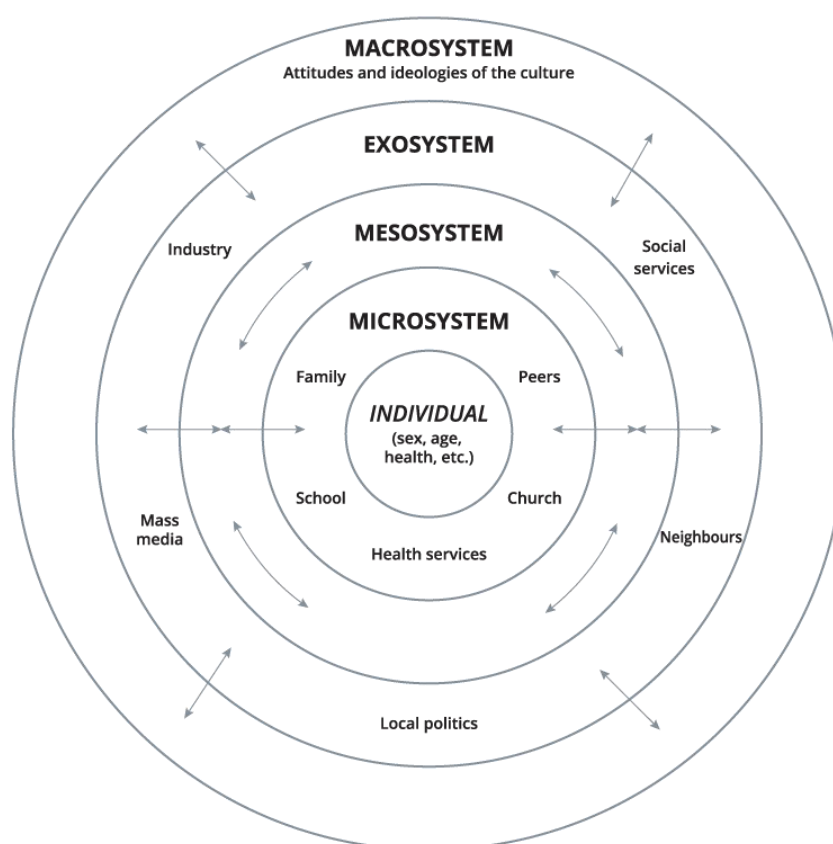
(Aebi et al., 2022; Aytes et al., 2001; Ede et al., 2023; Maletzky & Steinhauser, 2002; Marques et al., 1994, 2005; McGrath et al., 1998; Perez & Jennings, 2012; Rocha & Valença, 2023). Participants in CBT recognised that the role-play aspects of the program were the most beneficial to their rehabilitation process (Grady & Brodersen, 2008). Empathy role-play requires the participant to assume the role of the victim and discuss aspects of the crime, triggering an emotional response that builds empathy from the victims' perspective. Although there is a theoretical rationale for including a focus on empathy in CBT for people who have sexually offended, processes to achieve this must be clearly documented for practitioners (Moster et al., 2008; Yates, 2004). For example, according to Yates (2004), empathy is a constellation of factors, which include perspective-taking, the emotional capacity to experience another's feelings and an interaction between cognition, affect, behaviour and the environment. It is, therefore, important that program logic is both documented and clearly set out for practitioners. The third study of this thesis investigates these processes and whether treatment programs have manuals for practitioners.

Like cognitive behavioural approaches, multi-systemic therapy (MST) has shown positive post-treatment outcomes—particularly when utilised with young people who have sexually offended. This therapeutic approach incorporates both Bronfenbrenner's (1979) theory of social ecology and empirically validated determinants of antisocial behaviour. The participant's ecological environment is the target of treatment because it is seen as a set of nested structures that interconnect (see Figure 2.1). The inner level is seen as a young person's developing immediate environment, such as home, school and the classroom. These differing environments within the immediate setting are interconnected and, therefore, treatment looks beyond an individual setting to the relationship between multiple settings. It is further hypothesised that human development is a product of the young person and their environment, with behaviour evolving as a result of the interconnection between these two

factors (Bronfenbrenner, 1988). The social ecology theory serves as a model to enhance the detection of developmental influences. Therefore, in considering the young person's social ecology in conjunction with empirically validated determinants of antisocial behaviour, MST aims to reduce problematic sexualised behaviours and address risk factors related to sexual offending (Henggeler, 2012).

Figure 2.1

Bronfenbrenner's Social Ecological Framework



Note. This image is from the University of Southern Queensland's Trauma Informed Behaviour Support: A Practical Guide to Developing Resilient Learners.

It is common practice for young people to be provided MST with the incorporation of family therapy to improve monitoring, supervision, discipline and reduce deviant peer affiliations (Henggeler, 2012; Kim et al., 2016). Individual and family interventions disrupt the deviant sexual cycle by forming a broad-based ecological framework able to target a

comprehensive set of identified risk factors (Dopp et al., 2015; Fanniff & Becker, 2006; Henggeler, 2012). At a family-level, MST enhances parental knowledge, provides support and resources, reduces parental denial of their child's sexual offending and promotes improved communication between family members. Family members work with the young person's social ecology, which may include teachers and sporting coaches, to develop plans for risk reduction, victim safety and relapse prevention. At a peer-level, the promotion of friendships and age-appropriate sexual experiences are targeted by addressing deficits in problem-solving and social skills. Moreover, strategies are developed to monitor the young person's school performance and discourage deviant peer associations (Henggeler, 2012).

Although research has examined MST's ability to reduce general and sexual offending, the latter is relatively limited to studies comprising young people. Borduin et al. (1990) conducted one of the first investigations into MST for young people who had sexually offended, with a small sample of treated ($n = 8$) and untreated ($n = 8$) offenders. Participants were subject to a risk-to-reoffend period between 21 and 49-months, with the treated cohort considerably less likely to sexually (12.5% v. 75%) or non-sexually (25% v. 50%) reoffend. Despite these positive results, the small sample size significantly compromised the generalisability of the findings. To address this limitation, Schaeffer and Borduin (2005) conducted a randomised control trial (RCT) examining long-term criminal activity among 176 young offenders who were charged for a serious offence (including sexual offending). Young people were randomly placed into either MST ($n = 92$) or individual therapy ($n = 84$) and exposed to a longer risk-to-reoffend period than observed in a follow-up study by Borduin et al. (1990), averaging 13.7 years. MST substantially reduced violent recidivism, with those who did not complete MST 2.57 times more likely to violently reoffend (95% CI = [1.22, 5.45], $p < .01$). Borduin et al. (2009) reported those young people from the MST cohort charged with a sexual offence ($n = 24$) had 83% fewer arrests for a sexual offence and 70%

fewer arrests for other offences when compared with those young people participating in standard individual therapy ($n = 24$). MST also had favourable effects on peer and family relationships, as well as academic performance (Borduin et al., 2009).

These findings are consistent within the psychosocial literature (Henggeler et al., 2009; Letourneau et al., 2009; Letourneau, Henggeler, et al., 2013; Sawyer & Borduin, 2011; Schaeffer & Borduin, 2005) and suggest MST is successful in its ability to reduce sexual recidivism. However, the follow-up periods are limited to the adolescent life course with less known about trajectorial changes into adulthood. An explanation is potentially a result of MST being predominantly designed for young people rather than adults. Borduin et al. (2021) recently addressed this limitation by re-assessing the post-treatment recidivism rates from the original clinical trial sample ($n = 48$) from Borduin et al. (2009). The follow-up period increased to 24.9 years, with the sample now in middle adulthood ($M = 39.4$ years). Recidivism (sexual and non-sexual) was measured by arrest, incarceration and civil suit data, with the non-MST sample shown to be at significantly greater odds of sexually reoffending (54.2% v. 12.5%; $OR = 8.27$; $p < .002$) than the MST group. Similarly, the non-MST sample was more inclined to engage in a non-sexual offence post-treatment (62.5% v. 29.2%; $OR = 3.40$; $p < .042$) than the MST cohort (Borduin et al., 2021). The literature demonstrates that for young people who have sexually offended, MST can have long-lasting effects, well into middle adulthood. These findings are useful for policymakers and service providers to consider in their selection of interventions.

The psychosocial and criminological literature is consistent on its stance regarding effective therapeutic interventions for people who have sexually offended, stating treatment based on cognitive behavioural or multi-systemic approaches are effective in reducing sexual and, in some cases, non-sexual recidivism. CBT, MST and their fundamental principles are developed from contemporary Western methods of therapeutic intervention and are widely

acknowledged as the most effective approaches for treating people who have sexually offended. However, this interpretation assumes that people who have engaged in a sexual offence are an equivalent cohort. Conversely, people who have sexually offended are a heterogeneous group of individuals and this should be acknowledged when administering and evaluating the effectiveness of treatment for those with cultural differences. Indigenous people are over-represented in criminal justice statistics for sexual offences and also withstand structural disadvantages, discrimination and systemic vulnerabilities—such as familial instability, antisocial attitudes and incarceration, unsociable peers and low socio-economic status (Adams et al., 2020). An Indigenous person's social and cultural environment adds a unique dimension to identifying appropriate correctional interventions. These disadvantages cannot be over-ridden with a singular, unproven intervention. In this circumstance, a one-size-fits-all approach has been shown to be ineffective (Lambie & Seymour, 2006). It is, therefore, important to establish an understanding of the responsivity principle in consideration of participants of cultural descent.

2.1.3.2 Treatment for Indigenous People Who Have Sexually Offended

Considerable effort has been devoted to understanding the effectiveness of treatments for people who have sexually offended. There has, however, been minimal attention directed to understanding the effectiveness of treatment for ethnically and culturally diverse groups, including Indigenous populations. Because Indigenous people are over-represented in Australian, New Zealand, Canadian and American justice systems (Cunneen & Tauri, 2019), it is important that treatment interventions are designed to successfully reduce problematic behaviours. Although treatment has predominantly utilised contemporary Western methods (such as CBT and MST), there has been some acknowledgement that treatment programs based on cognitive behavioural approaches produce different outcomes for Indigenous and non-Indigenous people and are unlikely to be compatible with elements of Indigenous culture

(Day, 2003; Macgregor, 2008). It is now posited that for treatment to have maximum positive outcomes, culturally relevant programs should replace generic Western approaches (Gutierrez et al., 2018). Therefore, when adhering to the responsivity principle, treatment for Indigenous people should be made culturally sensitive and encompass components specific to the individual's cultural ties (Pooley, 2020). The cultural compatibility of treatment programs becomes increasingly important when the individual has strong cultural ties (Pooley, 2020).

The effectiveness of CBT has been examined in a general psychological context in Australia, a country where psychological distress among the Indigenous population is high (Hunter, 2007; Kelly et al., 2009; Larney et al., 2012; Parker, 2010; Purdie et al., 2010) because of the everyday racism faced by Indigenous Australians and must be recognised by treatment providers and programs alike (Thurber et al., 2022). Bennett-Levy et al. (2014) trained ten Indigenous counsellors in cognitive behavioural methods, with the aim of understanding the appropriateness of CBT for Indigenous Australian clients. This unique study has several positive aspects associated with the use of CBT for mental health issues, including anxiety and depression. However, the findings only begin to break new ground in the Indigenous Australian mental health literature. Whereas CBT embodies principles of empowerment and self-determination that are central to Indigenous social and emotional wellbeing (Nelson et al., 2014), scholars have stated more consideration towards cultural responsivity is required and cannot be achieved from CBT alone (Dudgeon & Kelly, 2014). The counsellors also strongly endorsed the use of low-intensity interventions when treating Indigenous clients, an apparent issue for Indigenous people who often score higher on risk and, therefore, require more intense treatments.

Cognitive behavioural approaches that are deemed low intensity employ interventions that are mobile phone-based, internet-based or use written resources, with the CBT expertise being already embedded in the materials. This approach is administered in 'bite-size pieces',

with participants being self-guided or having the option of being supported by a practitioner without specialist therapist skills (Bennett-Levy et al., 2010, 2014). Low-intensity CBT contrasts with high-intensity CBT, in which interventions are administered face-to-face with a therapist specialising in CBT practices (Bennett-Levy et al., 2014). Prioritising the use of low-intensity approaches becomes an issue for people who have sexually offended because the ‘dosage’ of treatment must be administered in accordance with the ‘risk’ principle. Therefore, the intensity of treatment must match the level of risk presented by the offender (Hanson & Yates, 2013; Lovins et al., 2009).

The risk principle states that higher risk offenders should receive higher intensity interventions (Lovins et al., 2009). There is limited evidence regarding the necessary dosage required to cease sexual offending behaviours. Marshall et al. (2006) recommended that adults at moderate risk of sexually reoffending receive between 80 and 120 contact hours over a period of 4 to 6 months. Although information on the treatment dosage for Indigenous people who have sexually offended is limited, Seager et al. (2004) reported Indigenous participants received approximately 275 contact hours of treatment. This was delivered during half-days, 5 days a week, for a total of 5 months; with some Indigenous participants receiving additional spiritual treatment sessions with an Elder (Seager et al., 2004).

Considering the reported treatment dosages, the practitioner’s guide for low-intensity CBT states it is a high-volume approach enabling practitioners to assist more clients than a high-intensity format (Papworth & Marrinan, 2018). Treatment should be administered multiple times per week in 30-minute blocks (Papworth & Marrinan, 2018) and generally in a non-face-to-face format (Bennett-Levy et al., 2014). Conversely, Indigenous people who have sexually offended can be perceived as at high risk of reoffending because of the various risk factors and barriers to treatment presented. For example, Adams et al. (2020) explored the differences in risk factors associated with Indigenous ($n = 81$) and non-Indigenous ($n = 130$)

adjudicated sexual offenders. Although there were several problems affecting both groups, the Indigenous cohort were disproportionately exposed to systematic vulnerabilities associated with onset sexual offending. These included inadequate engagement and voluntary dropout of school, familial endorsement of antisocial behaviour and familial incarceration, engagement with antisocial peers and low socio-economic status (Adams et al., 2020). Kenny and Lennings (2007) and Doolan et al. (2013) further report Indigenous young people are more likely to have a parent currently in prison or a history of parental incarceration and are more likely to be subject to a child safety notification—factors that cause emotional and psychological distress, social stigma, familial instability and risky behaviours. Nonetheless, the effects of CBT for Indigenous people remain relatively unknown.

Post-treatment recidivism is the common method used to measure the effectiveness of a treatment program for people who have sexually offended. Allan et al. (2003) retrospectively investigated generic psychological treatment for young Western Australian Indigenous ($n = 95$) and non-Indigenous ($n = 231$) people convicted of a sexual offence. Indigenous young people were three times more likely to sexually reoffend (15.8%; $n = 15$ v. 5.0%; $n = 6$) than the non-Indigenous cohort. Because the study did not set out to explicitly ‘evaluate’ treatment, there is no information regarding the number of Indigenous people who received treatment and those who did not. The results must be interpreted with additional caution because the Indigenous cohort were exposed to a longer risk-to-reoffend period than the non-Indigenous cohort (4.2 years v. 3.2 years). In Western Australia, Davies (1999) reviewed the Aboriginal Sex Offender Treatment Program at Greenough Regional Prison where, prior to implementing the program, an 80% recidivism rate was calculated for untreated offenders. For those Indigenous participants who completed the program ($n = 45$), there was a post-treatment recidivism rate of 38% ($n = 17$), and this rate was reduced to 11% ($n = 5$) when data were restricted to sexual recidivism.

Overall, treatment programs for Indigenous people who have sexually offended have not been sufficiently evaluated in Australia (Macgregor, 2008). A systematic review examining the characteristics and effectiveness of treatment for young people who had engaged in a sexual offence in Australia and New Zealand found a minority of evaluations analysed the recidivism rates of Indigenous and non-Indigenous separately (Finney, 2021; Finney et al., 2024). Of the eight identified studies, six included Indigenous Australian young people within the sample and only two reported on recidivism differences between Indigenous and non-Indigenous young people. However, one Queensland treatment program included in the systematic review had been specifically designed to ‘close the gap’ in sexual recidivism between Indigenous and non-Indigenous young people who had sexually offended.

The Griffith Youth Forensic Service (GYFS) has been designed as a field-based practice model of treatment in Queensland, Australia, incorporating three core components (Allard et al., 2016). Field-based treatment means clinicians travel to regional and remote locations to facilitate equitable access to treatment, improve understanding of contextual factors and ecological validity of assessments. Field treatment also allows for community engagement and supervision of cultural considerations that may affect treatment. Second, multi-systemic assessment and treatment is utilised, which, for Indigenous people, includes information regarding their specific cultural heritage: local language and cultural protocols, including local cultural lore, cultural values, beliefs and practices with respect to relationships, general and sexual, kinship relationships and specific community and environmental considerations. This information informs the development of an individualised risk assessment and treatment plan. Finally, collaborative partnerships are formed within the individual’s natural social ecology to ensure service continuity and enhance the cultural and ecological validity of treatment.

Allard et al. (2016) followed participants in the GYFS for 2.5 years post-treatment and found the program to have a positive effect on reducing sexual recidivism for both Indigenous (2.8%; $n = 1$) and non-Indigenous (2.9%; $n = 2$) participants. However, the Indigenous cohort were more likely to violently reoffend (33.3%; $n = 12$ v. 16.2%; $n = 11$) or engage in a non-sexual and non-violent offence (80.6; $n = 29$ v. 47.1%; $n = 32$) post-treatment (Allard et al., 2016). While advancements have been made by the GYFS, the lack of research on effective treatment for Indigenous people who have sexually offended in Australia has resulted in practitioners and policymakers consulting international studies for information (Adams et al., 2020). This is despite concerns regarding the applicability of international advancements for the unique geographical and cultural features of Indigenous people in Australia (Smallbone & Rayment-McHugh, 2013).

Although the transferability of international advancements to the Australian context must be interpreted with caution, it continues to be important to investigate and reflect on these practices and how they may be implemented with different cultural groups. In Canada, attrition among Inuit people who have sexually offended was high (Hamilton, 2002; Trevethan et al., 2004). Therefore, a culturally appropriate, cognitive behavioural multi-model, high-intensity program was specifically designed for Inuit offenders ($N = 24$) with a history of sexual violence. The program was made culturally relevant through co-facilitation in Inuktitut (the Inuit language), included Inuit healing practices and was led and supervised by experienced and skilled Inuit healers and staff (Trevethan et al., 2004). The program had a high retention rate (93%), with most participants (91%) indicating that the link with culture and community had a positive effect on the rehabilitation process. The connection to culture and community—as well as family, kinship, spirituality and land—have been demonstrated elsewhere as elements that enhance the social and emotional wellbeing of Indigenous people, thereby increasing engagement in clinical treatment (Gee et al., 2014). Although these results

are developed from positive experiences opposed to empirically validated evidence from recidivism, Ellerby and MacPherson (2002) used reoffending rates to empirically test treatment effectiveness. Contemporary Western treatment (e.g., CBT) was blended with culturally informed healing practices for North American Indian, Métis and Inuit people who had a reported sexual offence ($N = 121$) in Canada. The blended treatment approach was facilitated by spiritual healers such as Elders, pipe-carriers and Indigenous therapists, incorporating traditional teachings, ceremonies and processes. Compared with the Indigenous cohort who completed Western treatment, the blended treatment cohort were more inclined to complete treatment (83.3% v. 55.2%) and to voluntarily continue treatment beyond their warrant expiry date (59% v. 39%). Finally, those in the blended treatment program were less likely to sexually reoffend (8.1%) compared with participants in Western focussed treatment (25.5%).

In the Inuit culture, *Tupiq* refers to the traditional Inuit tent that provides short-term shelter when travelling (Stewart et al., 2015). The program is built on three themes that represent the three poles that hold up the *Tupiq*. Pole one is about the *self* and challenges participants to examine all aspects of the treatment program, including skills practice, healing, discussion themes and behavioural change components in the context of the participants' awareness of their own experiences. Pole two encompasses *responsibility* and taking action for participants' own behaviours. Finally, pole three is *community* and centres around the participants' relationships with others in the community. With the poles anchoring the program and tying all components together, the program is co-facilitated by experienced Inuit correctional program officers with the healing aspect of the program delivered by an Inuit Elder (Stewart et al., 2015). Of the 61 Inuit participants who completed the program, 4.9% ($n = 3$) sexually reoffended while 21.3% ($n = 13$) violently reoffended. This rate is lower than the comparative group of Inuit people who had sexually offended and receive no treatment (n

= 114). This cohort was more likely to sexually (11.4%; $n = 13$) and violently (35.1%; $n = 40$) reoffend (Stewart et al., 2015).

As in Canada, New Zealand treatment programs for Māori men who have sexually offended are designed in a way to address the responsivity principle—recognising and valuing the competencies, interests and learning styles of Māori men. In Māori culture, it is important for the *Mana* of an individual to be restored (defined as the enduring and indestructible power of the gods and sourced from the spiritual realm; see Webb & Jones, 2008). The strength of *Mana* is a particularly important issue for Māori given the loss of land, language and culture has diminished *Mana* for Māori people (Leaming & Willis, 2016). In a Western paradigm, *Mana* appears to share similar characteristics of self-esteem, dignity, wellbeing and community standing (Tomlins-Jahnke & Mullholland, 2011; Webb & Jones, 2008). The Te Piriti prison-based program in Auckland uses cognitive behavioural approaches that are blended within a tikanga Māori framework to enable a supportive environment. The framework allows Māori men to acquire or build *Mana* lost through their offending behaviour by building, reinforcing and maintaining prosocial relationships. In addition, the program employs a full-time cultural consultant with responsibilities for delivering, reinforcing, monitoring and maintaining the culturally specific aspects of the program (Nathan et al., 2003).

Māori men attending the Te Piriti prison-based program ($N = 68$) were exposed to a post-treatment risk-to-reoffend period of 2.4 years. During this time, participants were less likely to sexually reoffend (4.41%; $n = 3$) with a continuation of general reoffending (41.18%; $n = 28$; Nathan et al., 2003). The results of Te Piriti can be compared with Kia Marama, a prison-based treatment program incorporating approaches that are culturally specific to Māori men but also including a separate treatment stream for non-Indigenous men in Christchurch (Bakker et al., 1998). Although the authors did not distinguish between the results of Māori

and non-Indigenous participants, the overall sexual recidivism rate of treated participants was higher (8%; $n = 19$) than Te Piriti. However, Kia Marama had a significant reduction in recidivism rates when compared with the no treatment cohort (21%; $n = 59$; Bakker et al., 1998). Similar results were also produced across three community-based treatment programs, with Māori participants sexually reoffending at a similar rate to non-Indigenous men (8.3% v. 8.0%; Lambie & Stewart, 2012).

A major theme from the responsivity literature is that treatment for people who have sexually offended is reported to be effective in reducing post-treatment recidivistic behaviours. However, for treatment to be effective for Indigenous people, it must be in accordance with the responsivity principle. Currently, most treatment programs are a one-size-fits-all approach using Western methods of treatment that do not cater for the unique characteristics of Indigenous people. Therefore, treatment that is provided to Indigenous people and not made culturally sensitive has a lack of adherence to the risk principle. It must be ensured that treatment programs abide by the responsivity principle and recognise the competencies, interests and learning styles of Indigenous people. Failure to do so may result in a heightened risk to the community with further victimisations. Building on this, it is important to not only understand the effectiveness of individual programs but the effects of treatment programs as a collective. The risk, need and responsivity framework is used in this thesis to assist in conceptualising, explaining and structuring findings with regard to the characteristics and effectiveness of treatment for Indigenous people who have sexually offended.

2.2 Meta-Analytic Reviews of Treatment for People Who Have Sexually Offended

Researchers are often confronted with the issue of small sample sizes in conjunction with short post-treatment follow-up periods when evaluating treatment programs. These two

limitations are consistent throughout the criminological literature. Consequently, small effect sizes are produced that provide difficulties to researchers attempting to detect significant treatment effects (Woodrow & Bright, 2011). A move towards enhancing methodological approaches for understanding the effectiveness of treatment is now essential. Meta-analyses are employed as a method to counter these limitations and incorporate multiple studies to determine the efficacy of treatment and specific variables responsible for treatment effectiveness. A meta-analysis employs statistical techniques to calculate treatment effects from multiple studies with similar hypotheses or constructs (Coolican, 2017; Uman, 2011). A strict methodical process is adhered to, whereby studies are thoroughly reviewed with a set of acceptable studies meeting the pre-determined inclusion criteria to form a new dataset. The results of each study are treated as individual participant results in a singular study (Coolican, 2017). Meta-analyses are, therefore, used to refine a specific area of knowledge. Several meta-analyses have been conducted to investigate the benefits of treatment for people charged with, or convicted of, a sexual offence.

Conducting one of the first large-scale meta-analyses to ascertain the effects of treatment for young people and adults who had received treatment for sexual offending, Hanson et al. (2002) compared treatment completers and a non-treatment sample ($n = 5,078$ and $n = 4,376$; $k = 43$) over a median risk-to-reoffend period of 46 months ($range = 12$ months to 16 years). Averaged across all studies, there was a positive, albeit small, effect for the treatment cohort in comparison with untreated offenders ($OR = 0.81$; 12.3% v. 16.8%). Significant variability was evident between studies as indicated by a large Q statistic (145.02, $df = 37$, $p < .001$). In the non-treatment group, those who dropped out of treatment were more likely to sexually reoffend than those who refused treatment ($k = 4$, $Q = 2.69$, $OR = 1.67$). The most effective intervention was current treatments consisting of cognitive behavioural approaches ($k = 15$, $OR = 0.60$, $Q = 23.89$, $p < .05$), placing this therapeutic approach in the

forefront of programs internationally. Schmucker and Lösel (2008) conducted a similar review of controlled outcome evaluations of psychosocial treatment, but included studies utilising medical interventions ($k = 135$; $N = 22,181$). Surgical castration and hormonal medication demonstrated the most significant findings, showing odds most favourable to reducing sexual reoffending ($k = 8$, $OR = 15.03$, $p < .001$ and $k = 6$, $OR = 3.11$, $p < .001$). However, these approaches are less common in contemporary practice. Therefore, when data were restricted to psychosocial interventions, cognitive behavioural ($k = 35$, $OR = 1.46$, $p < .01$) and classical behavioural ($k = 7$, $OR = 2.18$, $p \leq 0.5$) approaches indicated a significant effect. These studies share similarities in that psychological treatment has a positive effect on reducing sexual recidivism post-treatment.

Schmucker and Lösel (2008) represented a leading study with its inclusion of unpublished literature ($k = 26$; 36%) and non-English literature from five languages, limiting publication and location biases. Reviews focusing exclusively on published evaluations tend to yield significant results and larger effect sizes than unpublished evaluations, thereby producing biased findings (Rosenthal, 1979). However, the design quality of the studies used in the meta-analysis were poor. It has become a crucial component of the meta-analytic process for researchers to examine and report on the quality of individual evaluations (Farrington, 2003; Oremus et al., 2012; Uman, 2011). The Maryland Scientific Methods Scale (SMS) is one of criminology's most influential methodological quality checks (Farrington, 2003) and has been utilised to assess the design quality of included studies (see Madaleno & Waights [2015] for a complete explanation of the levels). The SMS is a 5-point scale, where the fifth tier is reserved for studies implementing a RCT design. Studies that achieve a level 3 are considered the minimum for making assumptions regarding 'what works' (Madaleno & Waights, 2015). The meta-analysis included six uncompromised random designs achieving a level 5 on the SMS. Other evaluations scored level 4 ($k = 7$) and level 3 ($k = 19$); however, the

majority applied non-equivalent control groups and were scored as a level 2 ($k = 48$). Consequently, 67% of the included evaluations did not achieve the minimum methodological design to adequately conclude ‘what works’ in sexual offender treatment. Schmucker and Lösel’s results must, therefore, be interpreted with caution, given that more than half of included studies did not have an adequate comparison group to determine the treatments efficacy. It is, therefore, imperative that systematic reviews and meta-analyses report on the quality of included studies to provide a robust understanding of treatment effectiveness.

A further deficit within the evaluated programs concerned author affiliation, which was acknowledged in more than half of the studies ($k = 32$). Authors affiliated with the treatment program may be reluctant to report negative results, selective in their analysis and only publish favourable outcomes (Schmucker & Lösel, 2015). Additionally, there is the increased potential for inflated results because authors are invested in improving treatment integrity and ensuring there is a high standard of program delivery. A recent meta-analysis by Schmucker and Lösel (2017) reported three-quarters of included studies ($k = 15$) had positive indicators of treatment integrity that was the result of authors being affiliated with the program.

To address the lack of meta-analyses containing high-quality studies, Schmucker and Lösel (2015) restricted data to methodologically strong evaluations. To be included in the review, evaluations had to utilise an experimental design—quasi-experimental studies were included only if there were no serious concerns regarding group equivalence (a score of level 3 or higher on the SMS). Consequently, compared with Hanson et al. (2002; $k = 43$) and, later, Schmucker and Lösel (2008; $k = 69$), the number of included studies was reduced to 28. The overall mean odds ratio was small although statistically significant for sexual recidivism ($OR = 1.41, p \leq .01$) and general recidivism ($OR = 1.45, p \leq .01$). The most effective intervention for reducing sexual recidivism was cognitive behavioural treatment ($k = 20$,

71.43%), which had a small but statistically significant effect ($OR = 1.38, p \leq .01$). There was also a large and significant effect for those participants who completed MST ($OR = 21.76, p \leq .001$), despite only a minority of programs reported using this approach ($k = 2, 7.14\%$). Other psychotherapeutic approaches did not yield significant results (Insight Oriented; $k = 2, OR = 0.97$ and Therapeutic Community; $k = 4, OR = 1.24$). Similar to Schmucker and Lösel (2008), statistically significant results were reported where author affiliation was present ($k = 15, OR = 1.17, p < .01$) compared with evaluations with no author affiliation ($k = 11, OR = 1.09$). This demonstrates the biasing effect of author affiliation in portraying a more favourable outcome—an issue that is considered and reported on in the present thesis.

A common theme among the studies within meta-analyses is the use of official reoffending information (charge and reconviction data) with no inclusion of self-reported sexual recidivism. Schmucker and Lösel (2015) were reluctant to use self-reported information, citing ‘the severe risk for biased reporting’ (p. 601). However, academics have argued in favour of including self-reported data, particularly when information is anonymously obtained and held confidential from legal authorities (Abel et al., 1987; Binik et al., 1989; DeLisi et al., 2016; Weinrott & Saylor, 1991). There has been some scepticism regarding the accuracy of self-report approaches in relation to bias (Robins & John, 1997; Schmucker & Lösel, 2015) and deception (Schretlen & Arkowitz, 1990). However, there is empirical evidence to suggest the approach serves as an accurate measure (Thornberry & Krohn, 2000). Because both measures provide unique data and reflect different sources of error, it is proposed that these methods, when combined, serve to provide a more inclusive indicator of post-treatment criminal activity. Consequently, future evaluations should consider the benefits of including self-reported recidivism information for providing a ‘true’ efficacy measure. The first study of this thesis is, therefore, a systematic narrative synthesis of

recidivism outcome studies and does not omit studies that include self-reported information regarding recidivism.

Meta-analyses have also shown that treatment is effective for young people and children who have engaged in a sexual offence. In their review of treatment programs specifically designed for young people ($k = 10$; $N = 644$), Walker and colleagues (2004) reported a weighted average r of .37 to indicate treatment effectiveness. Encouragingly, evaluations producing even the poorest results were considered effective. Three of the four studies reporting an effective size of $r = .50$ or higher were CBT or MST (Walker et al., 2004). These results were consistent with later research by Winokur et al. (2006), Reitzel and Carbonell (2006) and a separate analysis from Hanson et al. (2002). An overview of past meta-analyses is presented in Table 2.4. What is common among these reviews, however, is that they use evaluations with inadequate study designs. In Walker et al. (2004), for example, half of the studies ($n = 5$) failed to disclose attrition rates that would provide valuable information for understanding a program's ability to retain participants. Moreover, eight of the ten studies did not include a control group, presenting difficulties reporting treatment efficiency. There is a requirement for research to show the treatment under review has an effect beyond what could be explained by confounding variables, such as cohort effects or other interventions (Henggeler et al., 1994). The use of methodologically poor research designs questions the efficacy of treatment for people who have sexually offended.

Table 2.4*A Summary of Previous Systematic Reviews and Meta-Analyses*

Study	Studies (<i>k</i>)	Follow-Up	Prominent Treatment	Sample Size			Sexual Recidivism			Non-Sexual Recidivism		
				TG (<i>n</i>)	CG (<i>n</i>)	Total	TG (%)	CG (%)	OR	TG (%)	CG (%)	OR
Hanson et al. (2002)	43	12m–16y (43m)	CBT	5,078	4,376	9,454	12.3	16.8	0.81, 0.50	27.9	39.2	0.56
Hanson et al. (2009)	22	4.7y	-	3,121	3,625	6,746	10.9	19.2	0.77	31.8	48.3	0.75 ²
Kettrey & Lipsey (2018)	8	12–75m	CBT	802	397	1,199	0–12.7	3.7–75	0.74	18.9–53.8	16.5–75	0.58
Lösel & Schmucker (2005)	69	5y	Classic Behavioural	-	-	22,181	12	24	1.70 ¹	22.4	32.5	1.67 ¹
Reitzel & Carbonell (2006)	9	58.5m	MST	1,301	1,685	2,986	7.37	18.93	0.43	-	-	-
Schmucker & Lösel (2008)	74	5.22y	CBT	9,512	12,669	22,181	11.1	17.5	1.70 ¹	22.4	32.5	1.67 ^{1, 2}

Schmucker & Lösel (2015)	28	5.9y	CBT	4,939	5,448	10,387	10.1	13.7	1.41 ¹	32.6	41.2	1.45 ^{1, 2}
Walker et al. (2004)	10	6y	CBT	644	-	644	-	-	0.37	-	-	-
Winokur et al. (2006)	11	6y	CBT	-	-		0-5	5-8	-	10-36	10-75	-

Note. *K* = Number of comparisons. *N* = Number of participants. OR = Mean Odds Ratio. TG = Treated Group. CG = Comparison Group

(Dropouts and Refusers). M = Months. Y = years. Where an OR over 1 demonstrates treatment effectiveness. ¹ The OR is interpreted as a score of over 1.0 indicates treatment effectiveness. ² These non-sexual recidivism rates included sexual recidivism as the authors use the definition of ‘any recidivism’ as opposed to non-sexual recidivism.

The methodological approach to evaluating treatment for people who have sexually offended has become a contentious topic within the criminological literature. Some academics have argued in favour of evaluations employing high-quality RCT designs (Quinsey et al., 1993; Rice & Harris, 2003; Schmucker & Lösel, 2015). The RCT design involves the random assignment of participants who have sexually offended to a treatment or control group, while ensuring strict procedures are in place to maintain a high level of treatment integrity. This design has been described as the ‘gold standard’ (Rice & Harris, 2003). Although it is acknowledged no study can be free from all threats to internal validity, the RCT design distributes differences randomly and eliminates subtle selection biases (Seto et al., 2008). However, the logistical, legal and ethical challenges associated with conducted high-quality evaluations on sensitive criminal and social issues have been acknowledged (Långström et al., 2013). For example, it is considered unethical and a threat to the community not to provide an individual with treatment for problematic sexualised behaviours. These authors have advocated for methodological approaches that use statistical or group matching produces, or an incidental cohort design (Finney, 2021; Hanson et al., 2002; Marshall & Marshall, 2007).

Evaluations statistically controlling for difference between treatment and comparison groups allow for a comparison even if differences on important risk factors are presented. Another methodological approach is to match people who attended treatment to those who did not on factors empirically related to recidivism (Harkins & Beech, 2007). Although these approaches still pose a threat to the internal validity of the evaluation—a consequence of the inability to control or match for differences in risk factors that have not become apparent in the analysis (Harkins & Beech, 2007)—they serve as a more effective methodological approach to navigate proposed logistic, legal and ethical issues associated with such sophisticated medical-like designs (Långström et al., 2013; Marshall & Marshall, 2007). Marshall and Marshall (2007) also argued in favour of incidental designs, whereby a

comparison group is formed when people who have sexually offended had positive motivations for receiving treatment but did not as a result of insufficient resources or another equivalent reason. For example, if treatment is not offered within their geographical proximity, a person may have the positive intention to engage with treatment but not be able to do so because of the fiscal costs associated with travelling and accommodation.

There has been much debate about the best-fitting approach for measuring treatment effectiveness for people who have sexually offended, whether this is one of methodological rigour or a more slightly relaxed approach (Marshall & Marshall, 2008, 2010; Marshall & Marshall, 2007; Seto et al., 2008). Seto et al. (2008) proposed two ways for the field of evaluation research of treatment programs for people who have sexually offended to move forward. These authors state the need to either continue debating the value of weak methodological designs or conduct RCTs to determine sexual offender treatment effectiveness.

Notwithstanding the methodological limitation, there is consistency among previous meta-analyses regarding the effectiveness of the use of cognitive behavioural approaches for reducing sexual and, in most cases, non-sexual recidivistic behaviours post-treatment (Hanson et al., 2002, 2009; Kettrey & Lipsey, 2018; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015, 2017; Walker et al., 2004; Winokur et al., 2006). CBT and its fundamental principles are derived from Western methods of treatment and widely acknowledged as the most effective approach for people who have sexually offended (Brandes & Cheung, 2009; Finney, 2021; Hanson et al., 2002; Kettrey & Lipsey, 2018; Kim et al., 2016; Lösel & Schmucker, 2005; McGrath et al., 1998, 2010; Schmucker & Lösel, 2008, 2015, 2017; Walker et al., 2004; Winokur et al., 2006). This interpretation, however, assumes people who have sexually offended are an equivalent cohort. However, people who have engaged in a sexual offence are a heterogeneous group, which is pertinent when it comes

to administering and testing the effectiveness of treatment for individuals with cultural differences.

There has been minimal attention directed to understanding the efficacy of treatments for ethnically and socially diverse groups, including Indigenous populations. Treatment for Indigenous people who have sexually offended is primarily derived from Western methods of therapeutic intervention. However, treatment needs to be culturally relevant for Indigenous people to achieve maximum positive outcomes (Gutierrez et al., 2018). There have been questions regarding the use of solely Western approaches and their application to Indigenous people who have sexually offended, with some scholars asserting programs using CBT's fundamental principles show different outcomes for non-Indigenous and Indigenous people (Day, 2003; Macgregor, 2008). This would mean that culturally sensitive treatment should be utilised and should encompass cultural elements that are specific to the population they are intended to treat, particularly when there are strong ties to culture (Pooley, 2020).

In 2018, Gutierrez and colleagues conducted a meta-analysis hypothesising that culturally relevant treatment would assist in successfully reducing post-treatment recidivism. Seven studies were identified from the conducted search ($k = 4$ New Zealand; $k = 3$ Canada), which encompassed 1,731 Indigenous adults. Participants who engaged with a service of cultural relevance ($n = 728$) had significantly lower odds of being charged or convicted with a new offence ($OR = .72$) compared with those who participated in a conventional service ($n = 1,003$). This finding resulted in a weighted average recidivism rate of 9%, which was lower for participants in the culturally relevant treatment program (39.1% v. 48.4%). However, the quality of the evaluations was weak because of no or inadequate group matching procedures and limited information on the treatment dosage, structure and methods of treatment implemented for both groups. Consequently, there is an inability to determine whether the effects of treatment were a direct result of cultural inclusion or if programs were of better

quality to those used with the control groups. Only two of the seven treatment programs included in the review were specifically designed for Indigenous people who had engaged in a sexual offence. Despite this, the results provide a baseline of understanding to suggest programs specifically designed for Indigenous offenders may outperform generic treatment programs.

When consolidated, the criminological literature shows substantial differences between the risk, need and responsivity requirements of Indigenous people who have sexually offended in comparison with non-Indigenous people who have so offended. Indigenous people may present as higher risk, due in part to several factors associated with antisocial risk. The criminogenic needs of Indigenous people can be differentiated from those from a Western demographic, stemming from the colonial history of Australia, New Zealand, Canada and the US. Finally, for the responsivity principle to be effectively addressed, treatment must, at a minimum, be guided by those whom it is targeted to ‘treat’ within the context of Indigeneity. Therefore, in light of this literature review, it is important that the treatment evaluation literature is consolidated regarding Indigenous people, and that the major criminological framework of risk, need and responsivity is addressed within a culturally appropriate framework guided by principles of Indigeneity. This thesis synthesises and meta-analyses the available literature investigating the effectiveness of treatment programs for people who have sexually offended and that include Indigenous people who have sexually offended. Where literature is not available, this thesis presents the results of surveys those organisations who provide sexual offender treatment to Indigenous people to build on prior literature and provide a more in-depth understanding.

2.3 Study Rationale

The present literature review has demonstrated that the results of individual evaluations and meta-analyses internationally are encouraging at the group level. Despite

some methodological shortcomings, these studies have indicated that specialised treatment for people who have sexually offended is generally effective in reducing both sexual and non-sexual recidivism. However, researchers have neglected to recognise the heterogeneity of people who have sexually offended and investigate the efficacy of programs for Indigenous people separate to non-Indigenous people. As a consequence, scholars have followed the path of answering ‘what works?’ for people who have sexually offended rather than the more detailed question of ‘what works for whom?’ (Day, 2003).

Treatment providers and scholars must move towards ensuring programs are suited for the population they are intended to serve. Therefore, programs for Indigenous people charged or convicted of a sexual offence must be designed and delivered in accordance with the risk, need and responsivity principles (Bonta & Andrews, 2007). Failure to satisfy these principles results in worse outcomes for Indigenous people and may lead to heightened community risk through recidivism. However, there remains a gap here because researchers are yet to locate, synthesise and critically analyse the body of literature regarding the treatment provided to Indigenous people who have sexually offended. Only once this gap is filled can recommendations be made that empirically conclude and contribute to best-practice approaches.

Understanding the characteristics and effectiveness of treatment and the specific variables that contribute to reduced recidivism is, therefore, paramount. Government initiatives to decrease Indigenous over-representation have relied too heavily on Western theorising, policy and practice, thus failing Indigenous people. Information regarding these issues will ensure policymakers and practitioners in Australia, and internationally, have information on the most effective methods to reduce sexual recidivism among Indigenous populations. Effective treatment is crucial to reduce the ‘crisis level’ and decrease the harms

associated with victimisation, reduce the fiscal costs of imprisonment and, most importantly, improve the lives and outcomes for Indigenous people.

2.4 Research Aim, Process and Questions Guiding This Thesis

2.4.1 Research Aim

This thesis consists of three studies that come together to provide an in-depth understanding of the characteristics of treatment for Indigenous people who have engaged in a sexual offence from four pre-determined countries (Australia, New Zealand, Canada and the US). These studies examine the collective success of treatment, particularly where success is measured by reduced sexual or general recidivism.

2.4.2 Research Process

The research aim was achieved by conducting three separate studies in the following order:

1. A systematic review of the literature.
2. A meta-analysis of the identified literature.
3. A national survey of treatment program providers.

2.4.3 Research Questions

The overall thesis has been guided by six research questions:

RQ1. What treatments are most reported on for Indigenous people who have sexually offended?

RQ2. What are the sexual and general recidivism rates following treatment for Indigenous people who have sexually offended according to culturally specific and generic treatments?

RQ3. How effective is treatment in reducing the sexual recidivism rates of Indigenous people who have sexually offended post-treatment?

RQ4. What is the quality of research regarding treatment programs for Indigenous people who have sexually offended?

RQ5. What are the factors that affect treatment outcomes for Indigenous people receiving treatment for sexual offending?

RQ6. Does treatment for Indigenous people who have sexually offended adhere to the fundamental principles of risk, need and responsivity?

2.5 Indigenous Oversight

The three studies within this thesis are combined to provide one large research project investigating the characteristics and effectiveness of treatment for Indigenous people who have sexually offended. All stages of this thesis were conceptualised and completed by the PhD candidate who is of Australian nationality. The thesis has been supervised by Associate Professor Natalie Gately and Dr Suzanne Rock, who are both of non-Indigenous descent (Australian and Scottish, respectively). As non-Indigenous people conducting research into sensitive Indigenous issues, it was imperative at the beginning of candidature that Indigenous representation and supervision was sought. Professor Braden Hill was consulted and accepted the invitation to act in a supervisor role for the project. Professor Hill is a Nyungar (Wardandi) man from the south-west of Western Australia. Professor Hill has provided guidance, feedback and oversight from an Indigenous cultural perspective from the establishment of candidature to the completion of this PhD.

Chapter 3: Study 1

3.1 Research Aim

The first study is a systematic review of the literature and builds on my recent Australasian systematic review, which examined the characteristics and effectiveness of treatment for young people who had sexually offended in Australia and New Zealand (Finney, 2021; Finney et al., 2024). The geographical area has been expanded from this first review and also includes adults who had sexually offended in the sample, with a specific focus on programs that included a sample of Indigenous people or differentiated between the effects of Western treatment used for Indigenous people and non-Indigenous people. This current study, therefore, provides an international focus on Indigenous populations by including literature from four countries: Australia, New Zealand, Canada and the US.

3.2 Research Questions

Study one contributes to four of the six overarching research questions:

RQ1. What treatments are most reported on for Indigenous people who have sexually offended?

RQ2. What are the sexual and general recidivism rates following treatment for Indigenous people who have sexually offended according to culturally specific and generic treatments?

RQ4. What is the quality of research regarding treatment programs for Indigenous people who have sexually offended?

RQ6. Does treatment for Indigenous people who have sexually offended adhere to the fundamental principles of risk, need and responsivity?

3.3 Methodology

3.3.1 Design

Systematic reviews are a rigorous scientific and orderly method of locating, appraising and synthesising evidence from prior studies (Farrington & Jolliffe, 2017; Uman, 2011). The purpose of a systematic review is to understand large bodies of information to determine what does and what does not work (Petticrew & Roberts, 2008; Uman, 2011). This method is significant for its ability to assist researchers to map areas of uncertainty and identify where minimal research has been conducted and where new studies and contributions are required (Farrington & Jolliffe, 2017; Petticrew & Roberts, 2008). The systematic review process uses secondary data from published studies and information is reported with the same level of detail that characterises high-quality reports of original research (Farrington & Jolliffe, 2017). Systematically assessing a specific area of research allows the reviewer to provide an up-to-date scientific summary of evidence regarding the state of research knowledge.

3.3.1.1 *Identifying the Sample*

In the systematic review process, a set of inclusion criteria is developed to understand the types of studies required to perform the review. These criteria can then be used when assessing whether a study progresses into the review or is excluded. Studies required the following characteristics to be eligible for review in this study.

1. ***Study of people who have sexually offended.*** Individuals included within studies must have been charged with or convicted of a sexual offence. There were no limitations on the type of sexual offences perpetrated, with the inclusion of both contact sexual offences (sexual penetration, indecent assault) and non-contact sexual offences (child pornography, voyeurism, exhibitionism). This approach achieved a comprehensive review of all sexual offending behaviours.

2. ***Indigenous people.*** Treatment programs did not need to be exclusively designed for Indigenous people. However, programs must have included a sample of participants who were Indigenous or First Nations and report the recidivism rates of this cohort separately from non-Indigenous or First Nations participants. Because there was nuanced research on treatment for Indigenous people who have sexually offended and received treatment, this approach increased the number of studies included in the review. Furthermore, it provided an effective strategy for understanding the differences in recidivism post-treatment between Indigenous people and non-Indigenous people receiving the sample therapeutic treatment.
3. ***Age of participants.*** Treatment programs were permitted to include young people, adults or both. Although it is acknowledged that the World Health Organization defines a young person as up to the age of 24 years (World Health Organization, n.d.), this review adheres to the Australian and New Zealand legal definition of adulthood (Crimes Act 1961 [NZ]; Criminal Code Act 1995 [Cth]). Therefore, an individual engaging in treatment under the age of 18 years was classified as a young person. The review excludes studies that use samples of children under the age of ten years. Children under the age of ten are generally viewed as having problematic sexualised behaviours and are not charged or convicted of sexual offences.
4. ***Psychological or cultural-based treatment.*** Treatment programs were derived from either Western methods of psychological intervention and therapeutic practice or culturally relevant practices for the Indigenous or First Nations population they intended to treat. In addition, treatment could take a blended approach (psychological treatment in conjunction with cultural practices). Studies were only excluded if they contained a sub-sample of participants who received a pharmaceutical or medical intervention.

5. ***Measure of recidivism as outcome.*** Recidivism had to be included as the dependent variable in studies to assess post-treatment outcomes. As a minimum, recidivism was assessed as formal legal measures including probationary or parole breaches, a re-arrest or reconviction. However, studies were also permitted to include self-reported data on criminal offending that had not come to the attention of the criminal justice system. More proximal methods of measuring treatment outcomes were also included—such as intra-individual psychological and behavioural changes derived from peer-reviewed scales—but needed to be in conjunction with recidivism information. It was also required that official data on formal legal measures were retrieved from police, courts, departments of corrections or other official government agencies.
6. ***Quantitative data.*** Studies were eligible for inclusion in the review if they drew primarily on quantitative data. Although studies were included if they incorporated qualitative data for the purpose of understanding the effects of treatment from the perspectives of either staff or those who engaged in the therapeutic process, this qualitative data did not form part of the analysis. It was imperative for this review to include quantitative data to ensure the meta-analysis (third study) could be performed.
7. ***Research design.*** Although it is acknowledged that evaluations and criminal outcome studies should include a comparative group of equivalence, no studies were rejected because of methodological shortcomings. Although some criminological researchers favour medical-like methodologies (Kettrey & Lipsey, 2018; Rice & Harris, 2003), these well-controlled designs are often scarce (Koehler, Lösel, et al., 2013). This is a result of the logistical, legal and ethical issues that arise when treatment is withheld for the advancement of research from a sample of people who have sexually offended (Långström et al., 2013; W. L. Marshall & L. E. Marshall, 2007). However, all studies

underwent a quality check (discussed later in section 3.4.3) to ensure that results were interpreted correctly and limitations were addressed.

8. ***Country of origin.*** This study was designed to assess the recidivism rates of Indigenous people who have sexually offended and received treatment for their sexual offences in either Australia, New Zealand, Canada or the US. Therefore, studies were excluded if treatment was delivered outside the jurisdictional scope of these four countries. A more detailed overview and justification for this is provided in section 3.3.1.2.
9. ***Historical limits.*** To maximise the possible result of relevant studies, no historical limits have been imposed on this review. Such an approach is also beneficial for understanding the progression and advancement of research on this topic.

3.3.1.2 Regional Limits and Justification

To ensure an effective comparative analysis of Indigenous and First Nation populations could occur, regional limits were set. Four countries were selected for examination: Australia, New Zealand, Canada and the US (see Table 3.1). These locations were purposely selected because of the similarities associated with each Indigenous or First Nations population. Although it is acknowledged that there are cultural and historical differences between the Indigenous people of each country, there are also similarities among the histories of these countries.

The four countries are ‘settler-colonial’ societies with similar histories (Cornell, 2005; Voaklander et al., 2020; Wolfe, 2006); thus, the majority population has arisen from immigrants with the Indigenous and First Nation populations becoming a displaced minority (Perry, 1996). The effects of colonialism within the four countries include systematic discrimination, poverty, racism and a paved transition to a Westernised lifestyle (Voaklander et al., 2020). Moreover, these countries are contemporary societies of settler populations with

a predominantly British heritage. The political and legal structures also draw heavily on common law and democratic English political traditions (Voaklander et al., 2020).

Commonalities also exist regarding the experiences of the Indigenous and First Nation populations. As stated by Cornell (2005),

supplanting [Indigenous] Peoples has entailed enormous Indigenous resource losses, the eventual destruction of Indigenous economies and a good deal of social disorganisation, precipitous population declines, and subjection to tutelary and assimilationist policies antagonistic to Indigenous cultures. (p. 5)

Consequently, in all four countries, the history has resulted in catastrophic and long-lasting negative implications for Indigenous and First Nation populations.

Table 3.1

Regional Limits and Indigenous/First Nations Terminology

Country	Definition/Name
Australia	Aboriginal and/or Torres Strait Islander
New Zealand	Māori, Pasifika ^a
Canada	First Nations, Inuit, Métis
United States	Native American, Alaskan Native

Note. ^a Pasifika people have been included in this review, but it is acknowledged that Pasifika people do originate outside New Zealand in any of the three major subregions of Oceania (Melanesia, Micronesia and Polynesia). However, Aotearoa New Zealand Māori and Pasifika people share ancient genealogical and cultural bonds through *te Moana Nui a Kiwa* (greater Oceania ancestral connections; Enari & Haua, 2021; Matika et al., 2021), and account for 8% of the New Zealand population (New Zealand Foreign Affairs and Trade, 2023).

3.3.1.3 Literature Search Strategy

Developing a literature search strategy to conduct a systematic review is a time-consuming process that can involve teams of people with various skill sets to ensure relevant and meaningful studies are identified for inclusion in the review. Authors of systematic

reviews and meta-analyses of sexual recidivism studies (e.g., Hanson et al., 2009; Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005, 2019; Långström et al., 2013; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015; Walker et al., 2004; Winokur et al., 2006) provide limited information on how the relevant literature research strategies evolved. Therefore, the development of a new approach was required for this review to ensure all relevant keywords were identified to encapsulate a representative sample of literature. It is hoped the thorough explanation provided in this thesis will assist future reviewers.

To begin constructing the current literature search strategy, a scoping search was conducted to retrieve systematic reviews and meta-analyses examining the treatment and recidivism rates of people who have sexually offended (see Appendix 2). The keywords and databases used by each study were extracted and placed into a pool of potential keywords for the current review (see Appendices 3 and 4). To ensure the keywords would not bias the review, previous reviews investigating the effectiveness of several types of treatment for Indigenous or First Nations offenders from the four pre-established countries (Australia, New Zealand, Canada and the US) were also sought for keywords relating to diverse cultural populations.

Keywords were then rated according to their duplication across the nine identified systematic reviews and meta-analyses. For example, ‘sex*’ and ‘treatment*’ were reported in all reviews and, therefore, rated as (9) for the most important keyword; ‘fetish*’ was only reported in one review and therefore received a rating of (1) (see Appendix 4 for a complete overview.) This process was followed for all keywords to understand their level of importance for retrieving information for the current review. Any keywords that were not relevant and did not demonstrate a level of importance for the review were deleted. It is important to note that

keywords demonstrating importance, but not adding value to the current review (i.e., fetish), were excluded. This resulted in a small pool of keywords that were used in the review.

The keywords were taken from the pool and organised into ‘PICO’ to ensure they encapsulated key components. That is, keywords must address the PICO mnemonic, an acronym for participants, intervention, comparison and outcome (see Table 3.2). It is not mandatory to equally address and define with precision each component of the PICO. Rather, this serves as an organisation tool to ensure researchers address relevant keywords and, therefore, capture relevant information (Cochrane, n.d.). The PICO method is endorsed by the Cochrane Collaboration.

Table 3.2

PICO Organisation of Keywords

Participants	Sex, Offender, Indigenous, Aboriginal, First Nations, Native, Māori Métis, Inuit, Indian, Minority, Culture
Intervention	Treatment, Program, Intervention, Therapy, Correctional, Rehabilitation
Comparison	Treatment, Dropout, Refuser, Attrition, Comparison
Outcome	Effectiveness, Outcome, Evaluation, Recidivism, Reoffend, Reconviction, Behaviour

Once the keywords were established and each component of the PICO had been addressed adequately, the keywords were placed into facets according to the information they were designed to retrieve. These facets were based on four categories to identify studies that: (i) focused on people who had sexually offended, (ii) examined a treatment program, (iii) conducted an evaluation or included post-recidivism information and (iv) included Indigenous people. The purpose of clustering keywords into search facets was to provide a visual overview of common themed keywords when an individualised strategy was developed and, therefore, ensure each keyword targeted several variations of that word (see Table 3.3). Thus, an individualised search strategy was provided to each keyword before coming together for a complete search strategy.

Table 3.3*Individualised Keyword Variations.*

Facet	Searched Word	Keywords
1.	Sex*	Sex Sexual Sexually
	Offen*	Offend Offender Offenders Offending Offence Offences
2.	Treat*	Treat Treats Treatment Treatments Treating
	Program*	Program Programs Programme Programmes Programming
	Therap*	Therapy Therapies Therapeutic
	Interven*	Intervene Intervention Interventions
	Correction*	Correction Corrections Correctional
	Rehab*	Rehab Rehabilitate Rehabilitation Rehabilitating
	Dropout*	Dropout Dropouts
	Refus*	Refuse Refuser Refusers Refusing
	Compar*	Compare Compares

Facet	Searched Word	Keywords
		Comparing Comparison Comparisons
	Attrition	Attrition
3.	Recidiv*	Recidivist Recidivists Recidivate Recidivation Recidivating Recidivism
	Reoffend*	Reoffend Reoffends Reoffended Reoffending
	Reconvict*	Reconvict Reconvicts Reconvicted Reconviction Reconvictions Reconvicting
	Evaluat*	Evaluate Evaluates Evaluation Evaluations Evaluating
	Outcome*	Outcome Outcomes
	Behav*	Behaviour Behaviours Behavior Behaviors Behave Behaves
4.	Indigen*	Indigenous Indigeneity Indigene Indigenes
	Aborigin*	Aborigine Aborigines Aboriginal Aboriginals
	Native*	Native Natives
	First Nations*	First Nation

Facet	Searched Word	Keywords
		First Nations
	Māori	Māori
	Métis	Métis
	Inuit	Inuit
	Indian	Indian
	Cultur*	Culture Cultures Cultural Culturally
	Minorit*	Minorities Minority
	People*	People Peoples

Librarians and information specialists have an integral role in the production of sound systematic reviews and can assist to improve the quality of the search process (Spencer & Eldredge, 2018). Therefore, a meeting was held with the Edith Cowan University Arts and Humanities Information Specialist on 22 April 2022. The purpose of the meeting was to establish a list of databases to use to conduct the search. The search used as many relevant databases as possible to achieve a comprehensive international study pool that tapped into different academic subjects (psychology, criminology, sociology). The databases included:

1. SAGE
2. Cochrane Library
3. Informit
4. EBSCO
5. ProQuest
6. Taylor & Francis
7. Embase
8. Heinonline

It was also determined that two citation searches would be beneficial to the initial searches to locate any missing information. These citation searches were conducted using the two following meta-databases:

1. Web of Science
2. Scopus

In addition, the scoping search of keywords used in previous systematic reviews and meta-analyses (see Appendix 2) was used to understand the importance of databases searched in prior reviews. The databases utilised in these reviews were extracted and tabled. From there, each database in the pool of reviews was coded according to the number of reviews that used the databases—an approach consistent to that undertaken with the keywords. The significance of a database was established with this process, revealing which databases previous reviews had searched. For example, the database ‘PsycINFO’ was used in all reviews reporting the databases searched. A level number was provided with each database depending on its significance (see Appendix 3 for all databases’ associated levels). Of the nine reviews providing this information, the top databases searched were:

Level 8: PsychINFO

Level 5: National Criminal Justice Reference Service

Level 4: MEDLINE and Dissertation Abstracts International

Level 3: Sociological Abstracts

The databases PsychINFO, MEDLINE and Sociological Abstracts were included in the search of host database EBSCO. Although these databases were already covered in the current review, this process affirmed their importance in the search process. The National Criminal Justice Reference Service was the only database not originally included in the search but formed a part of this process.

A second meeting with the information specialist was held on 6 May 2022. This meeting ensured the keywords were adequately developed and systematically presented to begin the literature search process. The information specialist confirmed the search process, along with restrictors, would achieve an adequate level of sensitivity to generate a large pool of studies, but would reach a sufficient level of specificity to guarantee information within the pool was of relevant interest. This is a critical aspect of a systematic review search because too much sensitivity can result in the capturing of tens-of-thousands of studies. Conversely, if there is too much specificity, the research team can risk missing crucial information for the review. For example, the difference between the following two clusters from the current review, when inclusive of the entire literature search strategy, is 490 articles from one database (ProQuest):

$\text{sex[*5]} \text{ OR offend[*3]} \text{ OR } (\text{sex[*5]} \text{ AND } [\text{offend[*3]}]) = 639$

or

$\text{sex[*5]} \text{ OR } (\text{sex[*5]} \text{ AND } [\text{offend[*3]}]) = 149$

Therefore, rejecting one keyword can bring specificity in line with sensitivity and reduce a study pool by thousands. An explanation for the above example is that when the term ‘offend[*3]’ is used as a standalone keyword, it generates studies that do not specifically focus on ‘sex offenders’—rather including any type of ‘offender’. This demonstrates the importance of ensuring an adequate level of sensitivity and specificity is achieved.

A final meeting with the information specialist was held on 31 May 2022. The purpose of this final meeting was to add data-specific subject terms into the search strategy facets and to certify that each facet would produce relevant results that would sit between specificity and sensitivity. Additionally, the information specialist observed the first database search to confirm that the process was completed accordingly. Once approval had been granted from the information specialist, searching of the remaining databases started. It must

be noted, however, that subject terms for each facet reduced the number of studies retrieved in each database. It was also acknowledged that studies of potential relevance were not encapsulated when using subject terms. Therefore, each facet was run without the use of a subject terms to ensure specificity did not reduce the number of studies included in the pool. Searches of databases was conducted between Thursday 2 June 2022 and Friday 10 June 2022. In addition, where possible, the search process was programmed to automatically run once a month for any new articles that adhered to the search criteria.

3.3.1.4 Planned Analysis

The retrieved studies were imported into EndNote software for screening, which has the necessary features to assist researchers in storing and processing studies (Bramer et al., 2017). Each of the included studies was critically analysed and a data extraction form developed for this project was utilised to extract data on a broad range of variables ($N = 297$). (See Appendix 5 for the comprehensive coding sheet developed for this project.) The variables were entered into the Statistical Package for the Social Sciences (SPSS) version 26 and categorised into six themes:

1. general study information
2. treatment characteristics
3. characteristics of participants
4. characteristics of victims
5. methodological characteristics and
6. post-treatment recidivism outcomes.

Descriptive statistics were used to summarise the variables within each theme that focused on the characteristics of participants, victims, methodologies and treatment programs. Descriptive statistics were also used to summarise information regarding sexual recidivism rates. The reported sexual recidivism rates from each study were calculated by dividing those

who sexually reoffended by the total number of people who were followed post-treatment. Moreover, the recidivism rates for those who engaged in non-sexual offences (violent, serious, and non-violent or non-sexual) were calculated by dividing the number of participants who engaged in such an offence by the total number of people on which relevant statistics were reported. The total sample size for non-sexual recidivism calculations was based on the applicable sub-sample of participants as some studies did not report on non-sexual reoffences. Here, it must be noted that the term ‘participants’ encompasses all persons included in the studies and is not restricted to those who participated in treatment.

3.4 Results

The following section outlines the literature search process, screening phases and the results yielded from the literature search strategy. The search process produced a pool of over 1,500 potential studies, of which 14 were included in this review (a rate of approximately 0.09%). The location of the 14 studies is provided and the methodological quality of studies, where appropriate, is discussed in relation to the Mixed Methods Appraisal Tool (MMAT; Hong et al., 2018) and the Maryland SMS (Sherman et al., 1998). Following this, each study was critically analysed with the results categorised into the six themes.

3.4.1 Literature Search Strategy

The literature search strategy was entered into eight host databases over a period of a week. Each host database contained numerous individual databases encompassing an abundance of academic journals and literature. This search initially produced 1,584 results for inclusion in the pool of potential studies, which were reduced to 1,350 upon the deletion of duplicates ($k = 234$). The greatest number of results came from the host database EBSCO ($k = 407$) and the lowest number of results was produced from Cochrane Library ($k = 26$; see Table 3.4 for an overview). The number of results collectively obtained was promising, particularly given the review’s uniqueness of exploring literature examining the post-

treatment recidivism of people who have sexually offended, with the inclusion of recidivism information for Indigenous people who have engaged in a sexual offence. The pool of studies was then subject to a three-phase screening process.

Table 3.4

Number of Studies from Host Databases

Host Database	<i>K</i>	%
EBSCO	407	25.70
SAGE	372	23.48
ProQuest	328	20.70
National Criminal Justice Reference Service (NCJRS)	158	9.97
Embase	71	4.48
Informit	68	4.29
Web of Science	64	4.04
Scopus	58	3.66
Heinonline	32	2.02
Cochrane Library	26	1.66
Total	1584	100.00

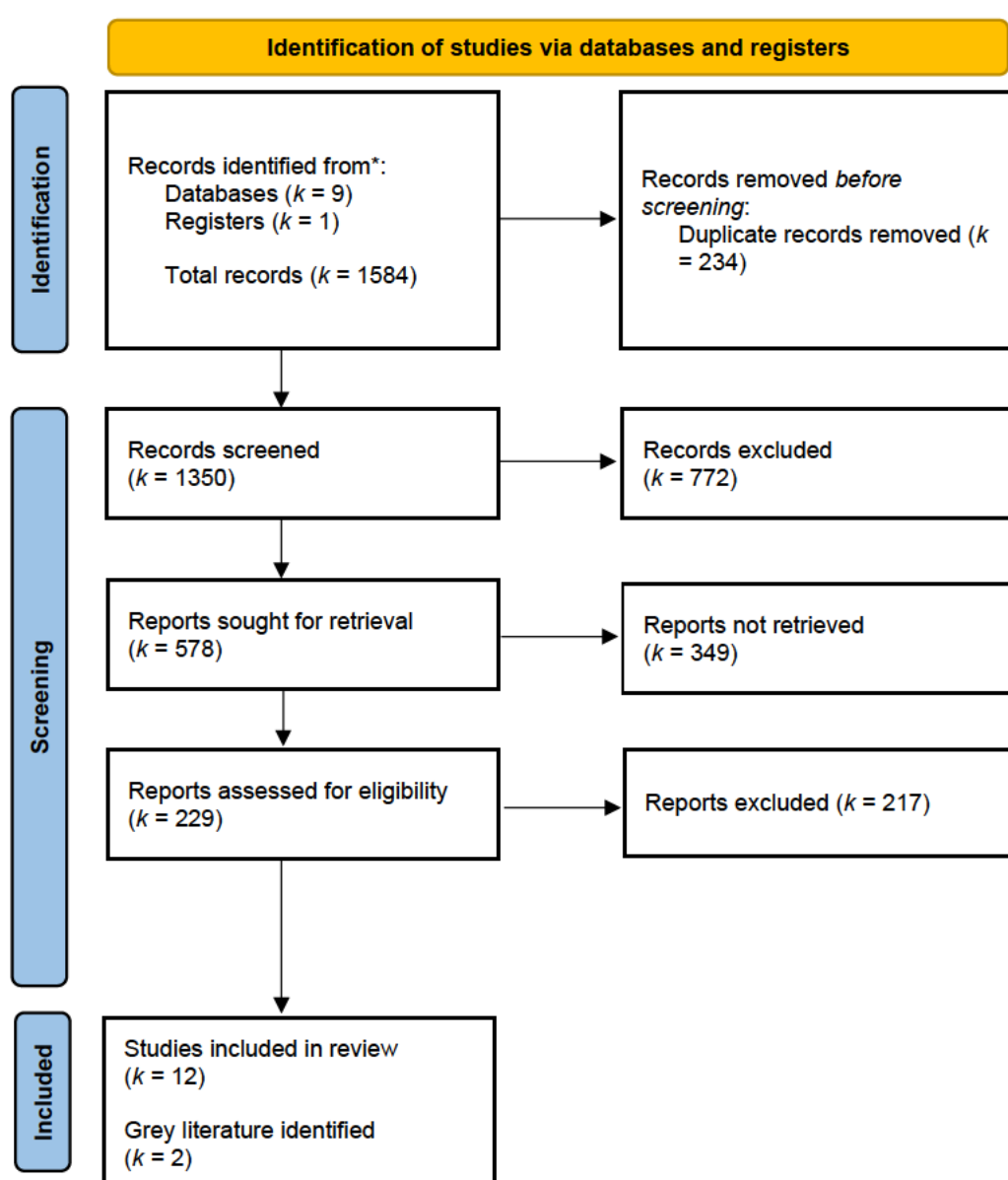
3.4.2 Screening of Studies

The pool of potential studies was screened using a three-phase screening process in accordance with guidelines and standards by PRISMA (Preferred Items for Systematic Reviews and Meta-Analyses). The first phase involved the screening of each title from the study pool. In phase one, a decision to exclude a study was made solely on the title of the study. If the title indicated non-adherence to the pre-determined inclusion criteria, the article did not progress to the second screening phase. If a decision could not be made solely according to the title, the study progressed to the second screening phase for a more critical review. Although extensive time and specialist assistance were invested into developing the literature search strategy, it was noted that a small number of studies focusing on sexual offending and not providing treatment outcomes were in the pool; these studies were

excluded. This screening phase resulted in the exclusion of more than half of the studies in the pool (57.19%; $k = 772$). Exclusion was predominantly a consequence of studies not focusing specifically on people who had sexually offended or illustrating broad literature on Indigenous and non-Indigenous people who had sexually offended. Figure 3.1 provides an overview of the three-phase screening process.

Figure 3.1

PRISMA Flow Chart



The first screening phase resulted in 578 studies progressing into the second screening phase. Here, the abstracts from each of the remaining studies were read in full to establish whether the pre-determined inclusion criteria could be applied. This screening phase was beneficial because the titles of some studies in the first screening phase provided inadequate information for exclusion from the review. Abstracts are designed to provide readers with relevant summaries of information about the article.

The difficulty of searching for literature regarding criminal outcomes for Indigenous people who have engaged in a sexual offence and received treatment was experienced and is duly noted. During the screening of studies and reading of relevant literature, it was noticed that studies did not ‘advertise’ an Indigenous focus. Rather, the reader was made aware that Indigenous people were included in the participant section—potentially because of their small numbers. Therefore, any study providing criminal outcomes for a group of treated offenders progressed into the third and final screening phase. This strategy was implemented to ensure that no studies presenting crucial information on Indigenous people who have sexually offended were excluded from the review. The second screening phase reduced the study pool by 349 studies (22.03% of all pooled studies). Because these studies did not sufficiently meet the inclusion criteria, they were unable to be included in the review. Those remaining progressed to a final screening phase because inadequate or limited information was presented within the provided abstract ($k = 229$).

It is uncommon for systematic reviews to have many studies remaining in the third screening phase, as made evident in similar systematic review reporting on complete PRISMA screening requirements (Sousa et al., 2023). As described, there were difficulties establishing whether criminal outcome studies included a sample of Indigenous persons within the total sample of participants. Therefore, 229 studies were accessed in full during the third screening phase to establish their adherence to the inclusion criteria and whether

samples of Indigenous people were included. Of these, 217 studies were excluded from the review. Studies were excluded according to the first factor that identified them as being on the exclusion list. Many studies were excluded because they did not include a sample of people who attended treatment for sexual offending or did not include a sample of Indigenous people.

To reduce selection bias in the review, studies were also sought by hand-searching alternative information sources. Government websites from the four countries were hand-searched to identify grey literature that was not peer reviewed or published in academic databases. Additionally, Google Scholar's search engine was utilised as a method of sourcing studies that were missed from the literature search strategy. Keywords from the literature search strategy were entered into Google Scholar in numerous variations. Finally, reference lists from studies included in the review were explored as a potential avenue for the retrieval of additional studies. Two of the 14 studies included in this review were identified by hand-searching the literature. Each study was assigned a study ID code (see Table 3.5).

Table 3.5*Study ID Codes for Data Interpretation*

ID	Author	Title
1.	Allan et al. (2003)	Recidivism Among Male Juvenile Sexual Offenders in Western Australia
2.	Allard et al. (2016)	Responding to Youth Sexual Offending: A Field-Based Practice Model that ‘Closes the Gap’ on Sexual Recidivism among Indigenous and non-Indigenous Males
3.	Stewart et al. (2015)	The Effectiveness of the Tupiq Program for Inuit Sex Offenders
4.	Smallbone and McHugh (2010)	Outcomes of Queensland Corrective Services Sexual Offender Treatment Program
5.	Rojas and Gretton (2007)	Background, Offence Characteristics, and Criminal Outcomes of Aboriginal Youth Who Sexually Offend: A Closer Look at Aboriginal Youth Intervention Needs
6.	Davies (1999)	Aboriginal Sex Offender Treatment Program Greenough Regional Prison
7.	Ellerby and MacPherson (2002)	Exploring the Profiles of Aboriginal Sexual Offenders: Contrasting Aboriginal and Non-Aboriginal Sexual Offenders to Determine Unique Client Characteristics and Potential Implications for Sex Offenders
8.	Lambie and Stewart (2012)	Community Solutions for the Community’s Problem: An Evaluation of Three New Zealand Community-based Treatment Programs for Child Sexual Offenders
9.	Molnar et al. (2021)	Reliability and Predictive Validity of the Juvenile Sex Offender Assessment Protocol-II in an Australian Context
10.	Nunes et al. (2016)	Does Change on the MOLEST and RAPE Scales Predict Sexual Recidivism?
11.	Olver et al. (2021)	An Examination of Latent Constructs of Dynamic Sexual Violence Risk and Need as a Function of Indigenous and Non-Indigenous Ancestry
12.	Couture et al. (2001)	A Cost–Benefit Analysis of Hollow Water’s Community Holistic Circle Healing Process
13.	Nathan et al. (2003)	Te Whakakotahitanga An evaluation of the Te Piriti Special Treatment Programme for Child Sex Offenders in New Zealand
14.	Greenberg et al. (2002)	Evaluation of the Western Australian Sex Offender Treatment Unit (1987–1999): A Quantitative Analysis

3.4.3 Methodological Quality of Studies

A crucial component of the systematic review process was to assess the methodological quality of studies included in the review (Reitsma et al., 2009; Uman, 2011) and consider how this affected the interpretation of findings. Although it is important to include and report on the results of a methodological assessment tool in the systematic review process, it is also important to reflect on which tool will be most appropriate to the cohort of studies under investigation. For example, many Cochrane Reviews use brief checklists (Uman, 2011), such as the 5-point Oxford Quality Rating Scale. However, this measure is influenced by double-blinding, which may be appropriate for health and drug trials (Uman, 2011) but not the psychologically-based studies that form the basis of this review. Indeed, there are arguments against using medical-style RCTs in sexual offender treatment research because of the logistical, legal and ethical challenges presented by sensitive criminal and social issues (Långström et al., 2013; Marshall, 1993; Marshall & Marshall, 2007, 2008, 2010; Marshall & Pithers, 1994). Therefore, consideration was given to selecting an appropriate tool.

For this review, it was determined that two methodological assessment tools would be utilised to determine the overall quality of studies. The first tool, the MMAT 2018 version (Hong et al., 2018), was used to assess the methodological quality of all studies included in the sample. A second tool, the Maryland SMS (Sherman et al., 1998), was introduced to assess the quality of studies that were direct evaluations of treatment programs. Not all studies in the sample were classified as evaluations, meaning that the SMS was only used on evaluation studies including a comparison group. The next section of the thesis introduces each quality assessment tool, its purpose, coding strategy and provides an interpretation of results.

3.4.3.1 The Mixed Method Appraisal Tool

The MMAT was originally designed in 2006 (Pluye et al., 2009) and later revised in 2018 (Hong et al., 2018). It was designed to assess the quality of quantitative, qualitative or mixed-method studies by focusing on a set of methodological criteria. The MMAT includes five core quality criteria for each of the following five categories: (i) qualitative studies, (ii) RCTs, (iii) non-randomised studies, (iv) quantitative descriptive studies and (v) mixed-method studies. The coding strategy involves three steps.

Because the MMAT is based on methodological criteria, studies can only be assessed if they are empirical. Therefore, each study was screened at the beginning because non-empirical studies cannot be appraised. Studies were then assigned one of the five MMAT categories depending on the relevant criteria and methodological design. Finally, the five questions within the category were answered in the following format: ‘Yes’ (the criteria have been met), ‘No’ (the criteria have not been met) or ‘Can’t tell’ (the information provided is not enough to conclude whether the criterion has been met or not). As noted by Hong et al. (2018), authors are discouraged from calculating an overall score or associating a numeric value with each category. Rather, the findings from the quality assessment should be more generally discussed.

An assessment of each study was conducted using the algorithm for selecting the study categories, along with the MMAT user guide and template. Although there are five criteria in the MMAT, the present studies were classified as either quantitative non-randomised ($k = 12$) or quantitative descriptive ($k = 2$). Within the respective categories, the literature was viewed as mostly good quality. Two common criteria were not, however, addressed adequately within studies (see Table 3.6).

The question ‘*Are the confounders accounted for in the design and analysis?*’ was not adequately addressed in some studies. Confounders are factors distorting the interpretation of

outcomes and must be considered in the design and analysis of non-randomised studies. In such circumstances, studies may implement methods to control for these factors that include, but are not limited to, statistical matching and standardisation. These studies provided limited information on the cohorts of people who did not attend treatment for varying reasons. Consequently, there is no information differentiating whether some individuals within the ‘no treatment’ cohort attended treatment for (i) sexual offending elsewhere or (ii) general offending, which could affect the interpretation of results. There was also limited information on the controlling of various variables in the control groups. For example, control groups could be deemed at higher risk of sexual offending if they dropped out of or refused to engage with a treatment program.

The question ‘*During the study period, is the intervention administered (or exposure occurred) as intended?*’ was also not effectively answered in studies. That is, whether contamination occurred within the comparison group or whether un-planned interventions were present within one of the groups were not adequately addressed. In half the studies ($k = 7$) it was plausible or acknowledged by the authors that the comparison group received treatment from a different program. For example, one study utilised a sample of young people who were processed by the court for sexual offences ($n = 213$) before the treatment service was developed as the comparison group. It is plausible these young people received treatment for their sexual offending behaviours. Another study identified 32 individuals within the comparison group who received treatment elsewhere but did not control for this within the recidivism results section. These findings and their implications are considered in more depth within the study one discussion.

Table 3.6*Mixed Method Appraisal Tool Scoring*

Author(s)	Category	Yes Criteria
Allan, A. Allan, M. Marshall, P. & Kraszlan, K.	Non-Randomised	4
Allard, T. Rayment-McHugh, S. Adams, D. Smallbone, S. & McKillop, N.	Non-Randomised	5
Stewart, L. A. Hamilton, E. Wilton, G. Cousineau, C. & Varrette, S. K.	Non-Randomised	4
Smallbone, S. & McHugh, M.	Non-Randomised	3
Rojas, R. Y. & Gretton, H. M.	Descriptive	5
Davies, J.	Non-Randomised	4
Ellerby, L. A. & MacPherson, P.	Non-Randomised	2
Lambie, I. & Stewart, M. W.	Non-Randomised	3
Molnar, T., Allard, T., McKillop, N., & Rynne, J.	Non-Randomised	5
Nunes, K. L., Pettersen, C., Hermann, C. A., Looman, J., & Spape, J.	Non-Randomised	5
Olver, M. E. & Kingston, D. A.	Non-Randomised	5
Couture, J., Parker, T., Couture, R., & Laboucane, P.	Descriptive	2
Nathan, L., Wilson, N. J., & Hillman, D.	Non-Randomised	4
Greenberg, D. M., Da Silver, J. A., & Loh, N.	Non-Randomised	4

3.4.3.2 The Maryland Scientific Methods Scale

The Maryland SMS (Sherman et al., 1998) is viewed as one of the most influential methodological quality scales in the criminological field (Farrington, 2003). The SMS has been designed to communicate the differences of methodological quality between varying studies to scholars, policymakers and practitioners. To achieve this, the SMS has been developed as a five-point scale that is easy to understand at each point (Farrington, 2003). Although initially developed for the field of criminology, the five levels of methodological quality are generic and have a wide application to the social sciences. Sherman et al. (1998) affirmed that only those studies with a robust comparison group can provide evidence that a program has caused the reported effect. In accordance with the SMS, this equates to a level three or above. The scale is as follows and presented in accordance with the SMS Scoring Guide (Madaleno & Waights, 2015).

5. *Randomised control trials*. To achieve a level five on the SMS, the study must adhere to a strict randomisation of participants. These methodological designs are relatively uncommon in criminological studies because of implementation issues (Långström et al., 2013; Marshall & Marshall, 2007), but, in principle, present as having the highest internal validity (G. T. Harris et al., 1998; Quinsey et al., 1993; Rice & Harris, 1997, 2003). To achieve this level, there must be complete randomisation of participants in the treatment and control groups. Within the limits of statistical fluctuation, the treatment cohort should be equivalent to the control group on all possible extraneous variables that could influence the outcome. Attrition rates must also be adequately addressed because elements of selection bias may present in those who drop out of treatment, although this is not considered an issue when dropouts occur on a random basis. Finally, to further reduce biases, the treatment and control groups should have no interaction to ensure contamination does not occur. Therefore, a study that reaches a level five on the SMS scale is considered to have the highest possible internal validity.

4. *Quasi-experimental designs*. Level four includes studies utilising an experimental design—for example, measuring crime before and after the program and controlling for variables that influence crime. This level is characterised by studies involving ‘quasi-randomness’—the idea that random assignment is not deliberately imposed but arise from another reason. Thus, it is common in such a design to see participants naturally migrate into different cohorts according to associated treatment needs or desires to voluntarily engage with treatment. The experimental and control groups are therefore, to some degree, similar on observable and unobservable characteristics. As opposed to the full randomisation witnessed in level five studies, those in level four must ensure the groups are randomised to moderate incorrect conclusions regarding

treatment effects. Therefore, it is common to see statistical controlling of extraneous influences in level four studies.

3. *Difference in differences*. Level three of the SMS is considered the minimum interpretable design adequate for drawing conclusions on ‘what works’. To achieve this level, studies must measure offending before and after the intervention in experimental or comparable conditions. Implementation of the difference-in-differences method can be used, comparing the experimental group and control group before and after treatment. The treatment effect is calculated by examining the changes in the outcome variable for the experimental cohort in comparison to the control group over the same period. The control group, therefore, serve to provide the counterfactual growth path, illustrating what would have happened in the experimental group had those participants not received treatment. That is, to be recognised as a level three, it must be argued that the experimental group would have followed the same trajectory as the control group. Second, there must be an identified period for treatment to compare those in the experimental group with the control cohort.

2. *Cross-sectional regression*. A study rated as level two or one is considered below the minimum threshold to consider ‘what works?’ in treatment interventions.

Associated studies generally implement cross-sectional regression designs where groups of individuals with varying characteristics are assessed at one point in time. Therefore, treated and untreated individuals are compared with no consideration for differing characteristics that have the potential to influence outcomes. In some cases, certain observable characteristics are controlled for, but unobservable characteristics remain.

1. *Before and after*. Studies receiving a score of level one generally either examine a cohort of participants after engagement with treatment or do not utilise a control

group. These studies generally use a time-series dataset where the individual is tracked across a prescribed period to understand the effects of the treatment. Consequently, it cannot be concluded that any effects are a direct result of the intervention undertaken given that external factors could influence outcomes.

Because the SMS is designed to assess the methodological quality of studies, each study was assessed in accordance with the scoring protocol (Madaleno & Waights, 2015; also see Table 3.7). As mentioned—and demonstrated by the current systematic review—there is limited literature evaluating treatment programs for Indigenous people who have sexually offended. Therefore, this review also utilised criminal outcome studies reporting on the cohorts of Indigenous people who had sexually offended and received treatment. A brief description of the methodological approaches utilised by individual studies is presented to complement the SMS scores presented in Table 3.7.

Table 3.7

Maryland SMS Scoring

Author(s)	SMS Level
Allan, A. Allan, M. Marshall, P. & Kraszlan, K.	2
Allard, T. Rayment-McHugh, S. Adams, D. Smallbone, S. & McKillop, N.	1
Stewart, L. A. Hamilton, E. Wilton, G. Cousineau, C. & Varrette, S. K.	4
Smallbone, S. & McHugh, M.	2
Rojas, R. Y. & Gretton, H. M.	1
Davies, J.	2
Ellerby, L. A. & MacPherson, P.	1
Lambie, I. & Stewart, M. W.	3
Molnar, T., Allard, T., McKillop, N., & Rynne, J.	1
Nunes, K. L., Pettersen, C., Hermann, C. A., Looman, J., & Spape, J.	1
Olver, M. E. & Kingston, D. A.	1
Couture, J., Parker, T., Couture, R., & Laboucane, P.	1
Nathan, L., Wilson, N. J., & Hillman, D.	3
Greenberg, D. M., Da Silver, J. A., & Loh, N.	3

Study 1. Australia. Allan et al. (2003) measured the recidivism outcomes for young people who had been convicted of a sexual offence in Western Australia. The authors utilised four groups: those referred to a ‘Psychological Service’, those referred to another agency for treatment, a cohort who were assessed but not referred or treated and a final group who had no contact with the service. This ‘no contact’ group included all young people who had sexually offended and were not referred for assessment by the court and young sexual offenders convicted between 1990 and 1992 (before the Psychological Service was established). Therefore, the study was awarded a level 2 as there were large differences between the treatment group and comparison groups. For example, the level of risk would differentiate between those who required treatment and those who did not require an assessment or treatment. Moreover, it cannot be definitively concluded that the ‘no-contact’ cohort—comprising young people who had sexually offended prior to the establishment of the services—did not receive treatment elsewhere.

Study 2. Australia. Allard et al.’s (2016) assessment of the GYFS serves as the first study to explore variation in sexual, serious and ‘other’ post-treatment recidivism with reference to Indigenous cultural heritage and remoteness. Bivariate chi-square analyses were conducted to determine whether Indigenous cultural heritage and remoteness were related to any of the three recidivism outcomes. Moreover, logistic regression analyses were used to assess the effects of Indigenous cultural heritage and remoteness on sexual, violent and ‘other’ recidivism, considering the follow-up period. The study is an important contribution to understanding the effectiveness of specialised treatment for Indigenous young people who have sexually offended, as well as those residing in remote communities. However, the methodological design does not include a comparative group outside those who completed the treatment program.

Study 3. Canada. Stewart and colleagues (2015) evaluated the Tupiq treatment program in Canada specifically designed for Inuit people who have sexually offended. The authors utilised a comparison group comprising Inuit people who had sexually offended and were released at the time of data collection. This group was also serving a sentence during the same time as those in the treatment group. The comparison group did not attend the Tupiq program because the majority were serving sentences in regions outside of Ontario (where the program is delivered). The authors reported no statistical differences between the treatment and comparison groups on several key variables relating to general and sexual reoffending. The comparison group had significantly more prior sex and sex-related offences; however, the effect of this on recidivism was included as a covariate in the survival analyses. In addition, over a quarter of the comparison group (28.07%) had received treatment for sexual offending elsewhere.

Study 4. Australia. Smallbone and McHugh (2010) evaluated Queensland's Correctional Services Sex Offender Programs. Potential participants were identified by the Queensland Correctional Service's Criminogenic Programs Unit according to information held by the Integrated Offender Management System. A comparison group was formed from those participants who were contacted but did not engage with the treatment service. Reasons for non-engagement included ineligibility because of short sentence length, ineligibility because of denial, declining an offer of program participation, accepting an offer but being discharged before commencement and not being offered a place in a program. The comparison group was significantly more likely to have prior non-sexual violent offences and longer sentence lengths and approached statistical significance for prior sexual offences. Overall, the comparison group had a significantly higher Static-99 total score.

Study 5. Australia. Davies (1999) presented findings on the evaluation of the piloted pre-release sex offender treatment program designed exclusively for Aboriginal people. The

paper presented the recidivism findings from the pilot program in comparison to two other programs designed for people who have sexually offended. There is no information on the demographics or offence information of these participants.

Study 6. Canada. Rojas and Gretton (2007) investigated the background and offence characteristics, as well as criminal outcomes, for Aboriginal young people who had sexually offended. The sample comprised Aboriginal and non-Aboriginal young males between the ages of 12 and 18, who had been mandated by the court or a probation officer to attend the Youth Sexual Offence Treatment Programme in British Columbia, Canada. The service was a specialised outpatient treatment program that provided assessment and treatment to young people who had confessed to, or had been convicted of, one or more sexual or sexually related offences. The authors coded file records retrospectively on a range of variables relating to the young people and their development, further investigating the criminal records of young people. The authors used a range of analyses to understand post-treatment offending (chi-square, odds ratio and survival analysis). However, the authors did not include an adequate comparison group and tested recidivism outcomes of Aboriginal people and non-Aboriginal people who had engaged with the service. The authors did, however, report on factors that may result in Aboriginal young people being at a higher risk of recidivism than non-Aboriginal young people.

Study 7. Canada. Ellerby and MacPherson (2002) investigated the Native Clan Organisation's FBMC treatment program delivered to Aboriginal and non-Aboriginal men who had sexually offended in Canada. The authors provided the post-treatment sexual recidivism outcomes for Aboriginal men in comparison with non-Aboriginal men who had participated in treatment. In addition, sexual recidivism rates were provided for a matched comparison group. The sample was matched on variables including: age at first conviction, date of index offence, age at index offence, number of convictions before index offence and

number of sexual offences prior to index offence. However, there was no information on the Indigenous status of those in the comparison group.

Study 8. New Zealand. Lambie and Stewart (2012) evaluated the effectiveness of treatment delivered for people who sexually offended against children at three treatment programs in New Zealand. Treatment completers were compared with two comparison groups: assessment only and probationary groups. The assessment only group did not receive treatment for several reasons, including an inability to speak English, significant comorbid mental health difficulties, difficulties with access to the program (e.g., transport difficulties or work commitments), not admitting to the offence, refusing to attend or the individual was assessed before sentencing and subsequently received a prison sentence. This group did not significantly differ from the treatment group on several key variables but had more offences prior to treatment. The probationary group comprised convicted child sexual offenders who did not receive treatment at one of the programs being evaluated but may have received some form of treatment elsewhere. There was no significant difference between the probationary and treatment group, although the latter had a more extensive offending history than the probationary group.

Study 9. Australia. Molnar et al. (2022) set out to test the reliability and predictive validity of the Juvenile Sex Offender Assessment Protocol (J-SOAP-II) in the Australian context. The authors examined the validity of the risk assessment tool for a sample of Indigenous and non-Indigenous young people who had committed a sexual offence and were referred for treatment at the GYFS. Although the aim of this study was to understand the J-SOAP-II in the context of Australian Indigenous and non-Indigenous young people, the authors provided the sexual, violent and non-violent recidivism rates for the two cohorts.

Study 10. Canada. Nunes et al. (2016) examined the MOLEST and RAPE scale's ability to predict sexual recidivism in a sample of adult males who had participated in a high-

intensity sexual offender treatment program while incarcerated. The authors provided post-treatment sexual recidivism rates for three samples who had completed treatment: Aboriginal participants, Caucasian participants and ‘other’ participants.

Study 11. Canada. Olver and Kingston (2021) explored the latent constructs of dynamic sexual violence risk and need, measured using the Violence Risk Scale Sexual Offence (VRS-SO) version. The authors undertook this project to understand the risk assessment tool within the context of Indigenous ancestry among a sample of men convicted of a sexual offence and who received treatment. The sample comprised an aggregate of three combined samples from Canada: two samples sourced from the Clearwater High Intensity Sex Offender Program and the other sample utilised a multisite state-wide sample who engaged with the National Sex Offender Program run by Correctional Services Canada. Recidivism information was provided post-treatment for the Indigenous sample in comparison with a non-Indigenous sample who had also received treatment.

Study 12. Canada. Couture et al. (2001) conducted a cost–benefit analysis of Hollow Water’s Community Holistic Circle Healing Process, a healing system for Native American communities in Manitoba (Canada) who have engaged in sexual abuse. The authors provide an extensive cost–benefit analysis of the program, detailed background information and recidivism outcomes for those individuals who have completed treatment. However, no comparison group or comparison program is provided.

Study 13. New Zealand. Nathan et al. (2003) evaluated the Te Piriti Special Treatment Program for people who have sexually offended against children in New Zealand. The authors compared those who completed treatment at Te Piriti to those who completed treatment in the Kia Marama Program. This program is also a prison program for adults who have sexually offended against children and is conducted by the Department of Corrections. The authors found the two groups to be comparable in variables relating to age, range of child sex

offences and volunteering for treatment. Additionally, a control group was used, comprising people imprisoned for sexual offences against children prior to the development of the Te Piriti and Kia Marama programs. This group was comparable on variables relating to age, ethnicity and number of previous sexual offences. However, there was no information on whether the control group received treatment for their sexual offences. The length of risk-to-reactivate was also considerably longer for the control group (8.45 years v. 3.9 years).

Study 14. Australia. Greenberg et al. (1999) conducted an evaluation of Western Australia's Sex Offender Treatment Unit. The authors compared the treatment group and comparison group, comparing 'untreated' sexual offenders across numerous variables that were categorised as: demographics, modus operandi, form of coercion, victim details, sentence details and prior criminal history. Overall, there were differences between the treatment and comparison group. The treatment group was significantly younger at the time of release and had longer sentences, a larger cohort with prior sexual offences, higher rates of non-sexual violent offences, histories of childhood violent and sexual abuse, and indicated their index offence was premeditated with the use of a weapon or some form of psychical restraint. With insufficient statistical matching, it is assumed the groups are non-comparable.

3.4.4 General Study Characteristics

This section provides the variables relating to the studies included in the review (see Table 3.8) and a general overview of the studies from each country. The systematic screening of literature resulted in the identification of 14 studies. Of these 14 studies, there were 22 treatment programs ($n = 13$ Australia; $n = 7$ Canada; $n = 2$ New Zealand) delivered to 29 different samples ($n = 13$ Australia; $n = 12$ Canada; $n = 4$ New Zealand) across a minimum of 22 different locations ($n = 10$ Australia; $n = 8$ Canada; $n = 4$ New Zealand). Of these, one study utilised a treatment program delivered nationally across Canada [11], two studies implemented a state-wide run service throughout Queensland, Australia [2, 9], and a third

Western Australian study stated that treatment was delivered at a metropolitan centre, a regional centre, two regional prisons and select metropolitan prisons [14]. Most studies ($k = 13$) were published after the 2000s and were conducted in Canada [3, 5, 7, 10, 11, 12] and Australia [1, 2, 4, 9, 14], followed by New Zealand [8, 13]. One Australian study was conducted in 1999 [6]. No studies were identified from the US. Given the lag between treatment and outcomes that is required in follow-up studies, the time of treatment implementation was often considerable earlier. Data from the studies was collected over an almost 30-year period from 1983 to 2012, with publication dates ranging from 1999 to 2022.

In systematic reviews, there is a heightened risk of introducing biases commonly associated with the publication type and author affiliation (Lösel & Schmucker, 2005; Rosenthal, 1979; Schmucker & Lösel, 2008, 2015, 2017). Reviews dominated by peer-reviewed journal articles risk introducing significant effects and larger effect sizes (Rosenthal, 1979). However, this systematic review accessed data from studies published in peer-reviewed journals [1, 2, 3, 5, 8, 9, 10, 11] as well as reports [4, 7, 12, 13], a book [15], and conference paper [6]. Additionally, when authors are affiliated with the treatment program, there is an increased risk that results will have a higher-than-normal effect (Lösel & Schmucker, 2005; Schmucker & Lösel, 2008, 2015, 2017). For this review, only one author from one study [7] had a perceived conflict of interest with the treatment program. Therefore, the risk of biases introduced into the review is low.

Table 3.8*General Study Characteristic Variables*

General Study Variables	<i>k</i>	%
Country		
Australia	6	42.9
New Zealand	2	14.3
Canada	6	42.9
Publication Year		
1990s	1	7.1
2000s	6	42.9
2010s	5	35.7
2020s	2	14.3
Publication Type		
Journal article	8	57.1
Report	4	28.6
Conference paper	1	7.1
Book	1	7.1
Peer-Reviewed		
Yes	8	57.1
No	6	42.9
Study Located		
Systematic search	12	85.7
Hand-search	2	14.3
Evaluation		
Yes	10	71.4
No	4	28.6
Aggregated Samples		
Yes	6	42.9
No	8	57.1
Author Affiliation		
Yes	1	7.1
No	13	92.9

3.4.5 Treatment Characteristics

In this section, the characteristics of treatment programs are reported with a focus on treatment type and whether programs were established using a Western psychological framework of treatment or are relevant to the cultural needs of Indigenous participants.

Treatment programs were predominantly delivered in either a community [1, 2, 8, 9, 12] or prison setting [3, 4, 6, 11, 13]. In this review, only Canada had a hospital treatment mode ($k = 1$ inpatient [10] and $k = 1$ outpatient [3]). Only two programs were both community-based and prison-based [7, 14].

The treatment within programs was generally designed to be specific to the cultural group attending the program. However, there were cohorts of Indigenous people attending treatment that was based solely on Western therapeutic methods of intervention: CBT (21.4%; $k = 3$) [10, 11, 14] and MST (14.4%; $k = 2$) [2, 9]. Of the Indigenous people attending a culturally inclusive program, seven (50.0%) [3, 4, 5, 6, 7, 8, 13] blended CBT with cultural practices while one program (7.1%) [12] did not include any Western psychological interventions. One program (7.1%) did not discuss the type of intervention provided [1], rather stating that the young people who had sexually offended were referred to a ‘psychological service’.

There was a tendency for the data to come from treatment that was implemented before the year 2000 [1, 4, 5, 6, 7, 10, 11, 12, 13, 14], with most studies providing treatment within the late 1980s into the mid-1990s. Treatment was delivered after the year 2000 in three studies [2, 3, 9] and one did not provide a date [8]. The period of treatment implementation did not have an association with whether the program had cultural integration. Of those providing information on treatment participation, four (23.1%; $k = 3$) [1, 4, 13, 14] were voluntary programs; however, most studies did not include this information (61.5%; $k = 8$) [2, 3, 6, 7, 9, 10, 11, 12]. See Table 3.9 for an overview on the frequency of information.

Table 3.9*Treatment Characteristic Variables*

Treatment Characteristics	<i>k</i>	%
Treatment Setting		
Prison	5	35.7
Community	5	35.7
Outpatient	1	7.1
Inpatient	1	7.1
Mixed	2	14.3
Timing of Treatment		
1980s	5	35.7
1990s	5	35.7
2000s	3	21.4
Not stated	1	7.1
Participation Type		
Voluntary/referral	4	28.6
Mandated/referral	1	7.1
Both	1	7.1
Not stated	8	57.1
Mode of Treatment		
Cognitive behavioural	3	21.4
Multi-systemic	2	14.4
Culturally relevant	1	7.1
Cognitive behavioural/culturally relevant	7	50.0
Other	1	7.1
Indigenous-Specific		
Yes	8	57.1
No	4	28.6
Mixed	1	7.1
Unclear	1	7.1
Treatment Occurrence		
Only group treatment	2	14.3
Mainly group treatment	1	7.1
Mixed	5	35.7
Only individual treatment	2	14.3
Unclear	4	28.6
Family Incorporation		
Yes	5	35.7
No	9	64.3
Duration (weeks)		

> 20	2	14.3
21–30	1	7.1
31–60	3	21.4
61–120	4	28.6
Not stated	4	28.6

Ten studies [2, 3, 4, 5, 6, 9, 10, 12, 13, 14] provided information on the length of treatment. Data were presented in numerous formats (days, months or years); therefore, the information was converted from the original format into days. The mean length of treatment for all participants across the studies was 416.64 days ($SD = 543.2$), which was longer for Indigenous people than non-Indigenous (approximately 150 days longer on average; see Table 3.10). This result was explained by the high number of programs specifically designed for Indigenous people that did not include participants from non-Indigenous backgrounds. One study [2], in describing their ecological approach to treatment, noted the additional time clinicians spent consulting with community members and other professionals. Here, clinicians spent significantly more time facilitating Indigenous clients' treatment ($M = 29.8$ hours) than non-Indigenous ($M = 13.55$ hours; $p < .01$).

Table 3.10

Length of Treatment in Days

Treatment Length	Range						
	<i>k</i>	<i>N</i>	<i>n</i>	<i>M</i>	Min	Max	<i>SD</i>
Combined Sample	10	3,516	1,866	416.64	91.00	1825.00	543.21
Indigenous	6	788	423	505.26	91.00	1825.00	664.54
Non-Indigenous	3	1,401	784	352.76	119.00	486.67	203.15

Note. *k* is the number of studies. *N* is the number of participants in the studies. *n* is the number of participants within the studies restricted to those who completed treatment. *M* is the mean number of days.

To explore the duration of treatment in more depth, further analyses were conducted. Treatment duration was compared according to the region in which treatment was delivered. Duration of treatment, on average, was longer in Canada ($M = 657.3$) [3, 7, 10, 12] than Australia ($M = 261.2$) [2, 4, 6, 9, 14] or New Zealand ($M = 280.0$) [13]. There was a considerable difference in the duration of treatment when the setting was considered. In comparison with programs delivered in prison [3, 4, 6, 13], those in the community [2, 9, 12] were sustainably longer ($M = 900.8$ v. 175.4). This average duration was also longer when compared with those administered both in the community and prison [7, 14] and the one program delivered in an inpatient setting [10] ($M = 299.2$ and 212.9 , respectively). The short length of treatment in the prison setting—compared with treatment in the community setting—may be a result of treatment intensity and the requirement for those individuals to successfully complete treatment before the expiry of their sentence. That is, treatment length is measured over days, weeks, months and years, as opposed to hours of engagement within the program. Because there was no information on the intensity of treatment, this was not investigated. See Table 3.11 for several comparisons in treatment duration.

Table 3.11*Comparisons Between Treatment Duration*

Duration of Treatment	K	N	M
Treatment Location			
Australia	5	1,060	261.17
Canada	4	605	657.33
New Zealand	1	201	280.00
Treatment Setting			
Community	3	334	900.82
Prison	4	465	175.35
Community, Prison	2	933	299.19
Inpatient	1	134	212.92
Treatment Timing			
1980s	3	1,040	807.79
1990s	4	538	197.08
2000s	3	288	334.48
Treatment Type			
Cognitive Behavioural Therapy	3	764	807.79
Multi-Systemic Therapy	1	227	280.00
Cognitive Behaviour, Culturally Relevant	5	768	215.19
Other	1	201	435.80

3.4.6 Participant Characteristics

Males were the predominant sex in studies (99.82%). Only one study included male and female participants [12] and females were largely underrepresented (0.18%; $n = 7$) reflecting sexual offender gender demographics. Although adults were the predominant age demographic included in this review [3, 4, 6, 7, 8, 10, 11, 13], there was a large sample of young people [1, 2, 5, 9]. Two studies included young people and adults [12, 14]. Detailed information on participant age could not be extracted with sufficient certitude given the varying reporting styles of individual studies. Age was defined as either age at index offence requiring treatment [1], age at time of referral for current offence [2, 9], age at discharge [4, 11], age at time of release [5] or age at current conviction [13]. Given the varying methods of

report age and definitions, the mean age of participants from obtainable information in studies was calculated at 27.91 years [1, 2, 4, 5, 9, 10, 11, 13, 14] (see Table 3.12). When restricting data to studies providing treatment to adults, the mean age of participants was 38.76 years [4, 10, 11, 13]. Comparatively, the mean age reduced to 15.62 years when focusing on studies with young people [1, 2, 5, 9]. Indigenous participants were younger ($M = 22.54$) [2, 5, 9, 11, 14] than non-Indigenous participants ($M = 22.00$) [2, 5, 9, 11]. This result was influenced by the inclusion of only one study reporting on age difference between adult Indigenous and non-Indigenous participants ($M = 36.20$ v. $M = 41.10$) [11]. When the focus was on young participants [2, 5, 9], Indigenous young people were older ($M = 16.17$) than non-Indigenous young people ($M = 15.63$).

Table 3.12

Age of Participants in Studies

Age Variables	k	N	M	SD
Total participants				
Total	9	4,438	27.91	12.01
Adults	4	2,090	38.76	3.94
Adolescents/children	4	912	15.62	0.42
Indigeneity				
Indigenous total ¹	5	613	22.54	9.20
Non-Indigenous total	4	1,086	22.00	12.74
Indigenous youth	3	170	16.17	0.37
Non-Indigenous youth	3	416	15.63	0.27
Indigenous adults	2	701	32.10	5.80
Non-Indigenous adults	1	670	41.10	12.10

Note. ¹ In the data from one study (Greenberg et al., 2002), age is only reported for Aboriginal participants who attended the Aboriginal Pre-Release Prison Program because there was insufficient information on the ages of Aboriginal participants attending the other prison-based and community-based programs.

Although adults were the predominant age demographic included in this review ($k = 8$), there was a large sample of children and adolescents between the ages of 10 and 18 years

($k = 4$). Two studies included both adults and young people but did not differentiate between the numbers of adults and young people when discussing participants. In most cases, participants were receiving treatment for one or more contact sexual offences. It was also common for participants with non-contact sexual offences to also be engaging with treatment alongside contact offenders.

The levels of risk participants presented before treatment were analysed from three sources: (i) level of risk presented, (ii) risk assessment tool utilised and (iii) history of previous offending and previous treatment for sexual offending behaviours. Six studies [3, 4, 9, 10, 11, 14] discussed the levels of risk posed by participants before they engaged with the treatment program. These levels of risk ranged from low to high, with all studies including medium to high-risk offenders. Two of the six studies [4, 14] focusing on medium to high-risk offenders also included offenders assessed as low risk. To determine the level of risk posed by participants, one or more of the following actuarial risk assessment instruments were used: Static-99 [3, 4], Stable-2000 [3, 4], Offender Risk Needs Inventory–Revised, Risk of Re-Offending–Prison Version [4], Treatment Intervention and Progress Scale for Sexual Abusers with Intellectual Disabilities [4], J-SOAP-II [9] and the VRS-SO [10]. Only one study reported the use of an actuarial risk assessment instrument that was specifically designed for Indigenous persons [4]. This instrument was the 3-predictor model.

Finally, the offending behaviours of participants and their involvement in treatment programs prior to the program under investigation were assessed to contribute to determining the overall risk of offenders. Prior offending was defined as any offending that occurred before the index sexual offence for which participants were receiving treatment. There were difficulties around the extraction of data relating to prior offending behaviours because reporting styles of prior offences varied. Some studies reported the information as the total number of participants who had prior sexual convictions (62.50%; $k = 5$) [3, 4, 11, 14],

whereas others reported the mean number of prior sexual convictions between participants (37.50%; $k = 3$) [9, 10, 13]. Nonetheless, eight studies [1, 3, 4, 9, 10, 11, 13, 14] provided information on the prior sexual convictions of participants, of which four [2, 4, 9, 14] included violent offences and three [1, 2, 9] included other prior offending. This information demonstrates the heightened risk of some participants receiving treatment because of prior sexual offence histories. Whereas three studies [7, 13, 14] stated that some participants had received treatment for their sexual offending before attending the program under investigation, one study [3] reported that some participants had received treatment for violent behaviours, substance abuse and living skills. See Table 3.13 for an overview of participant characteristics.

Table 3.13*Characteristics of Participants*

Participant characteristic	<i>k</i>	%
Gender		
Males	13	99.82
Females	1	00.18
Age		
Adults	8	57.1
Adolescents/children	4	28.6
Mixed	2	14.3
Homogeneity of age		
High	6	42.9
Low	4	28.6
Unclear	4	28.6
Sexual offending		
Contact & non-contact	8	57.1
Unclear	6	42.9
Risk level		
High	3	21.4
Medium/High	1	7.1
Low/Medium/High	2	14.3
Risk not measured	8	57.1
Risk assessment tool		
Generic	4	28.6
Indigenous-specific	1	7.1
Unclear	1	7.1
Risk not measured	8	57.2
Previous offending		
Sexual	8	57.1
Violent	4	28.6
Other	3	21.4
Previous treatment		
Yes	4	28.6
No	10	71.4

3.4.7 Victim Characteristics

The characteristics of victims can be helpful to build an understanding of participants and their offences. However, information on the characteristics of the victims was not

routinely reported. Of those studies that did provide this information, the following section outlines the characteristics of victims in relation to age, gender and relationship to the offender. Treatment participants tended to victimise young people under the age of 18 years (see Table 3.14). However, there was a correlation between the victimisation of young people and studies exclusively using young participants. There were also no studies with participants who solely victimised either females or males.

Table 3.14

Characteristics of the Victims

Victim Characteristic	<i>k</i>	%
Victim Age		
Young people only (18 <)	4	28.6
Young people & adults	2	14.3
Adults only (18 >)	2	14.3
Not reported	6	42.9
Victim Gender		
Male & female	6	42.9
Not reported	8	57.1
Relationship to Offender		
Intra-familial & extra-familial	4	28.6
Intra/extra-familial & stranger	3	21.4
Not reported	7	50.0

Note. For the purposes of this project, ‘extra-familial’ is defined as occurring outside the family network but where the person is known to the offender. ‘Stranger’ is where the relationship is neither intra-familial nor extra-familial.

Overall, victims were overwhelmingly either intra-familial or extra-familial (known to the victim but not related) and not a stranger. A slightly smaller number of studies [1, 5, 6, 8, 13] included intra-familial and extra-familial relationships with the inclusion of stranger victimisations. Where studies reported the relationships between victims and offenders for Indigenous and non-Indigenous participants [4, 5, 7, 13, 14], there were no differences between the most common relationship type—both Indigenous and non-Indigenous were

more likely to offend against extra-familial victims. This was followed by offences against intra-familial victims (see Table 3.15).

Table 3.15

Most Common Victim Relationships

Relationship Variables	<i>k</i>	<i>n</i>	%
Indigenous			
Extra-familial	4	127	60.19
Intra-familial	4	84	39.81
Non-Indigenous			
Extra-familial	4	298	78.01
Intra-familial	4	84	21.99

3.4.8 Methodological Characteristics

This section summarises the coded variables relating to sample sizes, the equivalence of risk between groups, length of follow-up periods and information regarding different aspects of recidivism (see Table 3.16). Most studies had large sample sizes of over 200 participants [1, 4, 5, 7, 8, 11, 13, 14]. It was common for the treatment group to contain over 100 participants [2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14], with two studies each containing over 500 participants [11, 14]. However, only half of the included studies ($k = 7$) contained a comparison group [1, 3, 4, 7, 8, 13, 14]. Here, it was common for the comparative cohorts to contain over 200 participants [1, 4, 8, 13, 14], with one study containing over 500 participants [14].

The equivalence of risk between the treatment and comparison groups was also investigated. Understanding the equivalence of risk is important for the interpretation of recidivism rates. This information was not available in half of the studies because they did not include a comparison group. One study ensured equivalence between the treatment and comparison group [7], with another statistically controlling for risk [13]. In two cases [8, 14],

the treatment group presented a high risk and, in another two studies [3, 4], the comparative group presented a higher risk.

Table 3.16

Methodological Characteristics of Studies

Methodological Characteristics	<i>k</i>	%
Sample Size		
< 50	1	7.1
101–150	4	28.6
151–200	1	7.1
201–500	6	42.9
< 500	2	14.3
Treatment Group		
< 50	1	7.1
51–100	2	14.3
100–150	4	28.6
151–200	2	14.3
201–500	3	21.4
> 500	2	14.3
Comparison Group		
< 150	1	7.1
151–200	1	7.1
201–500	4	28.6
> 500	1	7.1
No comparison	7	50.0
Group Risk Equivalence		
Yes	1	7.1
No, TG at higher risk	2	14.3
No, CG at higher risk	2	14.3
No, but controlled for statistically	1	7.1
Information not available	8	57.1

A total of 5,635 participants was included in this review. The sizes of samples within studies varied extensively, ranging from 45 participants to 1,436 participants. There were twice as many non-Indigenous participants within samples ($n = 3,616$) [1, 2, 4, 5, 7, 8, 9, 10, 11, 13, 14] than Indigenous ($n = 1,730$) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14].

Irrespective of Indigeneity, there were more participants in the treatment groups (62.75%) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14] than in the comparison groups (37.25%) [1, 3, 4, 7, 8, 13, 14]. This figure is reflective of the reduced number of studies reporting the use of a comparative group within the analysis of findings ($k = 7$) [1, 3, 4, 7, 8, 13, 14]. Participants from non-Indigenous backgrounds were the prominent cohort in both the treatment (62.53% v. 30.71%) and the comparison groups (57.21% v. 23.75). Table 3.17 provides a breakdown of the samples according to the group type, treatment type and Indigeneity. It was common to see Indigenous participants engaging in cognitive behavioural treatment or a blended treatment approach containing CBT and cultural practices. Similarly, it was common for non-Indigenous participants to engage in cognitive behavioural practices.

Table 3.17*Breakdown of Sample Sizes in Relation to Group and Treatment Type*

Participant Type	Range				
	<i>k</i>	<i>N</i>	%	Min	Max
Participants					
Total	14	5,635	100.00	45	1,436
Indigenous	14	1,730	30.71	12	393
Non-Indigenous	11	3,616	64.17	68	1,128
Treatment Group ¹					
Total	14	3,536	62.75	45	1,063
Indigenous	13	1,083	30.63	12	393
Non-Indigenous	11	2,211	62.53	91	670
Comparison Group					
Total	7	2,101	37.25	114	806
Indigenous	5	499	23.75	52	198
Non-Indigenous	5	1,202	57.21	33	608
Treatment Type (total)					
Cognitive behavioural	3	1,827	51.67	134	1,063
Multi-systemic	2	227	6.42	104	123
Culturally relevant	1	107	3.03	-	-
Psychological treatment	1	73	2.06	-	-
CBT, culturally relevant	7	1,302	36.82	45	359
Treatment Indigenous					
Cognitive behavioural	3	455	44.48	12	393
Multi-systemic	2	68	6.65	32	36
Culturally relevant	1	107	10.46	-	-
Psychological treatment ^a	1	-	-	-	-
CBT, culturally relevant	7	393	38.42	21	102
Treatment non-Indigenous					
Cognitive behavioural	3	1,313	58.85	123	670
Multi-systemic therapy	2	159	7.13	68	91
Culturally relevant	1 ^b	-	-	-	-
Psychological treatment	1 ^a	-	-	-	-
CBT, culturally relevant	5	759	34.0227.43	85	257

Note. There is a discrepancy between the total number of participants reported in this thesis and the actual total number of participants. Allan et al. (2003) did not account for 16 participants. Therefore, the decision was made to exclude these 16 participants from the report. In another study (Olver et al., 2021), one of the aggregated samples had participants who

attended treatment ($N = 180$) but not all participants necessarily completed treatment. ^a The author did not provide the relevant information to complete this section. ^b Non-Indigenous people did not participate in culturally relevant treatment.

3.4.9 Recidivism Post-Treatment

The following section provides information on sexual, violent and other recidivism occurring during the prescribed risk-to-reoffend period. Recidivism is reported here in several ways to provide an in-depth overview of the included studies and the outcomes of treatment for the two distinct cohorts of individuals under review. Adherence to the inclusion criteria ensured all studies reported on recidivism post-treatment. However, most studies expanded to include other violent and non-sexual or non-violent post-treatment offending (71.4%; $k = 10$) [1, 2, 3, 4, 5, 6, 8, 9, 11, 14].

There was minimal consistency between the reported definition of recidivism used in studies. Recidivism defined as a conviction [1, 10, 13] or charge and conviction [3, 5, 11] was the most utilised definition (42.86%; $k = 6$). Two studies employed arrest information as the definition of recidivism (14.3%) [9, 14] and one study utilised charges only (7.1%) [2]. Finally, one study group had multiple definitions to draw on information from cautions, charges, arrests and convictions (7.1%) [4]. Four studies did not report this information (28.6%) [6, 7, 8, 12]. See Table 3.18 for an overview of the variables used to provide a background on post-treatment reoffending.

Table 3.18*Post-Treatment Recidivism Characteristics*

Coded Variables	<i>k</i>	%
Follow-Up Period (months)		
< 24	1	7.1
25–36	4	28.6
37–60	4	28.6
> 61	4	28.6
Not stated	1	7.1
Type of Reoffence		
Sexual only	3	21.4
Sexual, violent	2	14.3
Sexual, violent, other	8	57.1
Sexual, general	1	7.1
Definition of Recidivism		
Charge	1	7.1
Arrest	2	14.3
Conviction	3	21.4
Charge, conviction	3	21.4
Caution, charge, arrest, conviction	1	7.1
Not stated	4	28.6
Source of Information		
Police	6	42.9
Government agency	1	7.1
Police, courts	1	7.1
Police, government agency	2	14.3
Other	1	7.1
Not indicated	3	21.4

Police data were the primary source for measuring post-treatment recidivism (42.8%) [2, 3, 9, 10, 11, 14]. A total of nine studies obtained information solely from the police or from the police and another source (courts or government agency; 64.3%) [1, 2, 3, 4, 7, 9, 10, 11, 14]. No studies in this review reported on the use of self-reported methods for obtaining reoffending information. Most studies reported the risk-to-reoffend period in years (71.4%; *k* = 10) [1, 2, 5, 8, 9, 10, 11, 12, 13, 14], and studies reporting risk-to-reoffend in months or

days (14.3%; $k = 2$) [3, 4] were converted into years for consistency. Participants were followed for an average of 5.39 years, with individual participant risk-to-reoffend periods ranging from 3 days to 7,117 days (see Table 3.19). The decision was made to extract those studies that contained a sample of Indigenous and non-Indigenous participants and investigate the reported differences in the risk-to-reoffend periods [1, 2, 3, 9, 12]. Indigenous participants were exposed to longer risk-to-reoffend periods ($M = 4.50$; $k = 5$) [1, 2, 3, 9, 12] than non-Indigenous participants ($M = 3.25$; $k = 3$) [1, 2, 9]. This result equated to Indigenous persons being subjected to a recidivism period for 457 days (approximately 1.25 years) longer than non-Indigenous persons.

Table 3.19

Risk-to-Reoffend Periods

Risk-to-reoffend periods	<i>K</i>	<i>N</i>	<i>M</i>	<i>SD</i>	Min	Max
Total	12	5,109	5.39	3.65	1.82	12.30
Indigenous	5	576	4.50	3.20	2.1	10.0
Non-Indigenous	3	278	3.25	0.73	2.60	4.04

All studies provided information on sexual reoffending that occurred during the prescribed risk-to-reoffend period. Sexual recidivism included both contact (i.e., sexual assault, sexual interference) and non-contact (i.e., possession of child pornography) offences. Across all studies, 10.67% of people ($n = 603$) sexually reoffended during the prescribed risk-to-reoffend period. A higher percentage of people sexually reoffended in the treatment group when compared with the comparison group (11.06% v. 10.60%). Table 3.20 presents an overview of recidivism information.

As mentioned, many of the studies [2, 3, 4, 5, 6, 8, 9, 11, 14] included additional information on violent recidivism that occurred during this period. Violent reoffending encompassed a range of behaviours, including actual or threatened violence against a person with an element of intent, such as assault, robbery, abduction, extortion and break-and-enter

of a dwelling with violence or threats, as well as going armed to cause fear. Rates of violent recidivism were higher than sexual recidivism. Overall, 22.83% of people engaged in a violent offence post-treatment, which was considerably higher for the treatment group than the comparison group (26.09% v. 14.66%).

Other general reoffending included theft, fraud, dangerous driving, property damage, illicit drug offences, public disorder offences and break-and-enter. One Australian study excluded traffic and vehicle regulatory offences as an action against the Traffic Act rather than the Criminal Code [2]. Another Australian study provided traffic offence information [1], although this information was excluded from the review. Information on this type of reoffending was limited to five studies [2, 3, 4, 5, 8]; however, only one study included a comparison group [5]. For most studies reporting this information, general recidivism was higher than sexual and violent recidivism. However, it is important to note here that one study [1] included sexual and other types of offences within an analysis separate to sexual offending. In total, 36.15% of people offended in a non-sexual and non-violent manner post-treatment, with a higher probability of treated participants engaging in such an offence than the comparative group (42.33% v. 16.73%).

Table 3.20*Recidivism Rates for Different Groups*

Recidivism	<i>K</i>	<i>N</i>	<i>R</i>	%
Sexual				
Total	14	5,653	603	10.67
Treatment	14	3,536	391	11.06
Comparison	6	1,905	202	10.60
Violent				
Total	10	4,429	1,011	22.83
Treatment	9	2,718	709	26.09
Comparison	4	1,385	203	14.66
Other				
Total	5	1,040	376	36.15
Treatment	5	789	334	42.33
Comparison	1	251	42	16.73

Note. *R* is the number of participants who reoffended. In this section of the analysis, treatment is representative of all aggregated treatment group samples that fall within the boundaries of a treatment group. For example, a program may include five aggregate samples, of which one is treatment for Indigenous persons. Here, all treatment samples are included. These aggregate samples are separated in a separate analysis.

These initial results must be interpreted with caution because only seven studies [1, 3, 4, 7, 8, 13, 14] utilised a comparison group. Consequently, the number of participants in the treatment group ($n = 3,536$; 64.99%; $k = 14$) was considerably larger than the number of participants in the comparison group ($n = 1,905$; 35.01%; $k = 7$). As a result of these group differences, there was a higher likelihood that recidivism in the treatment group would be higher given the larger number of potential cases for recidivism. A more in-depth investigation into the recidivism rates across studies was, therefore, warranted. A review of the descriptive data across all individual studies suggested the percentage of sexual recidivism for those in the treatment cohort was less than the comparison. Table 3.21 provides a detailed account of descriptive data on post-treatment recidivism rates. One study [1] reported a

marginally higher percentage of sexual recidivism in the treatment group. This study was, therefore, analysed to understand the differences between the treatment and comparison groups. The comparison group included young people who were convicted of a sexual offence prior to the establishment of the treatment service. Therefore, young people may have received treatment elsewhere. Another study also reported a higher percentage of sexual recidivism in the treatment cohort [14]. The authors note, however, that although it appears that the treatment group is more likely to reoffend, there are systematic differences between the treated and untreated groups that relate to recidivism. It, therefore, cannot be assumed that the recidivism rates are related to treatment alone.

Despite the unweighted total violent recidivism suggesting higher rates for recidivism in the treatment group, the review of descriptive data from individual studies providing the information [3, 4, 7, 14] found large discrepancies between the treatment and comparison groups. Thus, although individuals were more likely to violently reoffend, when compared with sexual reoffending, the treatment group were less likely to reoffend than those in the comparative group.

Table 3.21*Summary of Descriptive Data on Post-Treatment Recidivism Rates*

Study ID	Sample (N)	Sexual Recidivism				Violent Recidivism				Other Recidivism			
		Treatment		Comparison		Treatment		Comparison		Treatment		Comparison	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1.	326	8	11	23	9.01	-	-	-	-	21 ¹	28.8	92 ¹	36.4
2.	104	3	2.9	-	-	23	22.1	-	-	61	58.7	-	-
3.	175	3	4.9	13	11.4	13	21.3	40	35.1	24	15.2	-	-
4.	409	5	3.2	15	6.0	4	2.5	25	9.6	174	48.5	-	-
5.	359	43	12	-	-	114	31.8	-	-	7	15.56	42	16.7
6.	45	5	11.11	-	-	5	11.11	-	-	-	-	-	-
7.	499	10	4.78	-	-	-	-	-	-	-	-	-	-
8.	389	4	5.2	36	16.82	17	10	29	13.55	68	55.3	-	-
9.	123	8	6.50	-	-	31	25.2	-	-	-	-	-	-
10.	134	24	17.91	-	-	-	-	-	-	-	-	-	-
11.	1063	183	17.22	-	-	382	35.94	-	-	-	-	-	-
12.	107	2	7	-	-	-	-	-	-	-	-	-	-
13.	484	11	5.47	59	20.8	-	-	-	-	-	-	-	-
14.	1436	82	-	56	7.0	120	-	109	13.5	-	-	-	-

Note. ¹ Results include sexual offences and other types of offending.

The differences between recidivism findings according to Indigeneity and group type were further analysed. All studies provided rates of sexual recidivism for Indigenous treatment completers. Ten studies [1, 2, 4, 5, 7, 8, 9, 10, 11, 13] provided further information on recidivism by non-Indigenous participants who also completed treatment. Overall, Indigenous people were more likely to sexually reoffend than non-Indigenous people (see Figure 14). This finding did not change when assessing the information for those who engaged with the treatment and the comparative groups (see Figures 3.2 and 3.3). Although similar results were reported when viewing violent reoffending, the discrepancy between Indigenous and non-Indigenous cohorts widened [2, 4, 5, 9, 11]. Indigenous people were more likely to reoffend violently than non-Indigenous people and were approximately twice as likely to offend violently post-treatment when data were separated into those who completed treatment and the comparative group. These results were consistent for non-sexual and non-violent offending post-treatment (see Table 3.22).

Table 3.22*Recidivism Rates According to Indigenous Status and Group Type*

Recidivism	<i>K</i>	<i>N</i>	<i>R</i>	%
Sexual Total				
Indigenous	14	1,472	195	13.25
Non-Indigenous	10	3,616	350	9.68
Sexual Treatment Group				
Indigenous	13	1,023	162	15.84
Non-Indigenous	9	1,711	173	10.11
Sexual Comparison Group				
Indigenous	2	166	18	10.84
Non-Indigenous	2	807	66	8.18
Violent Total				
Indigenous	9	1,001	409	40.86
Non-Indigenous	7	2,669	416	15.59
Violent Treatment Group				
Indigenous	8	740	306	41.35
Non-Indigenous	5	1,171	274	23.40
Violent Comparison Group				
Indigenous	2	166	59	35.54
Non-Indigenous	2	807	114	14.13
Other Total				
Indigenous	4	215	131	60.93
Non-Indigenous	3	416	180	43.27
Other Treatment Group				
Indigenous	4	215	131	60.93
Non-Indigenous	3	416	180	43.27
Other Comparison Group				
Indigenous	0	-	-	-
Non-Indigenous	0	-	-	-

Note. Aggregated treatment samples have been split into those for Indigenous and those for non-Indigenous. Unfortunately, there were some Indigenous persons participating in non-Indigenous treatment program in one study (Greenberg et al., 2003). This information could not be separated.

Akin to the aforementioned rates of sexual, violent and general recidivism, it was imperative that the analysis was consistent and that a summary of descriptive data was

provided. This was completed to ensure a consistent and honest interpretation of data and to showcase where biases may be present from studies containing no comparison group. Table 3.23 provides a summary of descriptive data for the Indigenous treatment group compared with the non-Indigenous treatment group. In all studies reporting the information, sexual recidivism for Indigenous treatment completers was consistent or higher when compared with the non-Indigenous treatment completers. In one study [10], the non-Indigenous treatment cohort were twice as likely to sexually reoffend; however, the Indigenous cohort was small ($n = 12$). The sexual recidivism findings were consistent in the studies providing violent recidivism information for Indigenous and non-Indigenous participants who completed treatment [2, 4, 5, 9, 11]. Here, Indigenous people who completed treatment were considerably more inclined to reoffend in a violent manner compared with non-Indigenous people who completed treatment. Again, Indigenous treatment completers were also more likely to generally reoffend compared with non-Indigenous completers [1, 2, 5, 9].

Table 3.23

Summary of Descriptive Data on Indigenous and Non-Indigenous Recidivism (Treatment Groups)

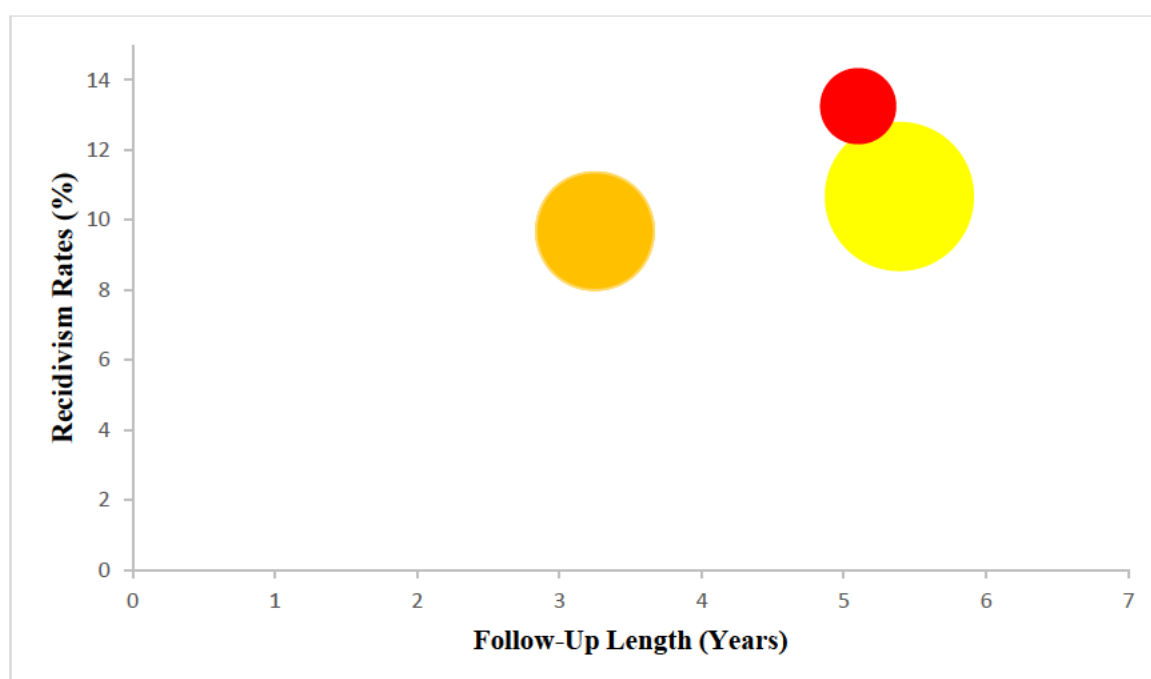
	Sexual Recidivism		Violent Recidivism		Other Recidivism	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Study ID	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
1. ¹	15 (15.8)	6 (5.0)	-	-	44 (46.3) ²	28 (23.5) ²
2.	1 (2.8)	2 (2.9)	12 (33.3)	11 (16.2)	29 (80.6)	32 (47.1)
3.*	3 (4.9)	-	13 (21.3)	-	-	-
4.*	1 (4.8)	4 (2.9)	3 (14.3)	1 (0.7)	-	-
5.*	21 (20.6)	22 (8.6)	52 (51.0)	62 (24.1)	70 (68.6)	105 (40.5)
6.*	5 (11.1)	-	5 (11.1)	-	7 (15.56)	-
7.*	6 (8.1)	4 (3.1)	-	-	-	-
8.*	2 (8.3)	10 (7.81)	-	-	-	-
9.	3 (9.38)	5 (5.49)	13 (40.6)	18 (19.8)	25 (78.1)	43 (47.3)
10.	1 (8.3) ³	23 (18.9) ³	-	-	-	-
11.	88 (22.4)	95 (14.9)	200 (50.9)	182 (28.4)	-	-
12.*	2 (7.0)	-	-	-	-	-
13.*	3 (4.41)	8 (6.02)	-	-	-	-
14.	4 (8.2)	-	8 (15.9)	-	-	-

Note. ¹ Results provided for study [1] are overall recidivism of both the treatment and comparison groups. ² Results include sexual offences and other types of offending. ³ This includes all information that relates to a sexual offence or where there is strong evidence to suggest a non-sexual offence was intended to lead to a sexual offence (i.e., trespassing with intent of being a ‘peeping tom’). * Indicates a study that included treatment that was of cultural relevance to the Indigenous cohort.

Finally, it was originally hypothesised that those who received treatment would reoffend at a lower rate than those in the comparative group during the risk-to-reoffend period. The results initially showed treatment to have a lower impact on reducing sexual recidivism compared with the comparison group (11.06% v. 10.60%; see, e.g., Table 3.20). This finding was investigated further to understand the causation of the inflationary effect on recidivism for treated offenders. To reduce this inflation, studies not including a comparison group were withdrawn to assess the between-group differences. The following section is a between-groups comparison utilising data where an appropriate comparison is provided.

Figure 3.2.

Sexual Recidivism Rates, as a Function of Recidivism for Total Sample, Indigenous and Non-Indigenous



Note. Bubble size is proportional to the sample size. Yellow = Total Sample, Orange = Non-Indigenous Sample, Red = Indigenous Sample.

3.4.9.1 Between-Groups Comparison According to Treatment Type and Indigenous Status

Sexual recidivism. Treated offenders sexually offended at a lower rate during the risk-to-reoffend period than the comparison group. Overall, the Indigenous cohort remained at a

higher risk of sexually reoffending than the comparison group (see Table 3.24), although, when completing treatment, Indigenous people were noticeably less likely to sexually reoffend than the Indigenous comparison group. A comparison between the Indigenous and non-Indigenous treatment cohorts was conducted, which showed that Indigenous people were consistently more likely to reoffend after treatment than non-Indigenous people (see Figures 1.3 and 1.4). Finally, a comparison between the Indigenous treatment group and the non-Indigenous comparison group was conducted to see the differentiating effects. Here, the non-Indigenous comparison group sexually reoffended at a slightly lower rate than the Indigenous treatment group.

Table 3.24*Recidivism Between-Groups Comparison and Indigenous Status*

Recidivism	<i>K</i>	<i>N</i>	<i>R</i>	%	%-Diff
Sexual Recidivism					
Treatment total v.	6	1,298	113	8.71	
Comparison total	6	1,905	202	10.60	1.89
Indigenous total v.	11	1,145	172	15.02	
Non-Indigenous total	11	3,294	350	10.63	4.39
Indigenous treatment v.	2	82	4	4.88	
Indigenous comparison	2	166	18	10.84	5.96
Indigenous treatment v.	9	760	148	19.47	
Non-Indigenous treatment	9	1,711	173	10.11	9.36
Indigenous treatment v.	2	71	5	7.04	
Non-Indigenous comparison	2	807	66	8.18	-1.14
Violent Recidivism					
Treatment total v.	4	1,146	154	13.44	
Comparison total	4	1,385	203	14.66	1.22
Indigenous total v.	7	781	351	44.94	
Non-Indigenous total	7	2,347	416	17.72	27.22
Indigenous treatment v.	2	82	16	19.51	
Indigenous comparison	2	166	59	35.54	16.03
Indigenous treatment v.	5	584	280	47.95	
Non-Indigenous treatment	5	1,171	274	23.40	24.55
Indigenous treatment	2	71	11	15.49	
Non-Indigenous comparison	2	807	114	14.13	-1.36
Other Recidivism					
Treatment total	1	158	24	15.19	
Comparison total	1	251	42	16.73	-1.54
Indigenous total	3	170	124	72.94	
Non-Indigenous total	3	416	180	43.27	29.67
Indigenous treatment	0	-	-	-	
Indigenous comparison	0	-	-	-	-
Indigenous treatment v.	3	170	124	72.94	
Non-Indigenous treatment	3	416	180	43.27	42.54
Indigenous treatment	0	-	-	-	
Non-Indigenous comparison	0	-	-	-	-

Following this, the data were again reviewed to ensure accuracy and honesty in the interpretation of findings. A summary of descriptive data from individual studies is provided to make a comparison in recidivism outcomes between the Indigenous treatment group and Indigenous comparison group. Four studies [3, 4, 7, 13] provided recidivism information for Indigenous people who completed treatment in comparison to Indigenous people who did not complete treatment. In all of these studies, the Indigenous comparison group were more inclined to sexually offend during the prescribed risk-to-reoffend period (see Table 3.25). There were large discrepancies between the two groups. This held true for the one study [3] providing information on violent reoffending. However, no studies provided information comparing the general recidivism rates for Indigenous treatment completers and a comparison group. Thus, patterns of recidivism demonstrate that Indigenous people who complete treatment are less likely to reoffend than the comparison group. However, these data are limited to the small sample sizes of Indigenous people within studies presenting recidivism information between treatment and comparison groups.

Table 3.25

Summary of Descriptive Data on Indigenous Treatment and Comparison Group

Study ID	Sexual Recidivism		Violent Recidivism	
	Indigenous TG	Indigenous CG	Indigenous TG	Indigenous CG
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
3.	3 (4.9)	13 (11.4)	13 (21.3)	40 (35.1)
4.	1 (4.8)	5 (10.2)	3 (14.3)	-
7.	6 (8.1)	- ^a (25.5)	-	-
13.	3 (4.41)	11 (13.58)	-	-

Note. ^a The authors do not provide the total number of Indigenous participants in the comparison group or the number that reoffended, only the percentage of those who reoffended in this cohort.

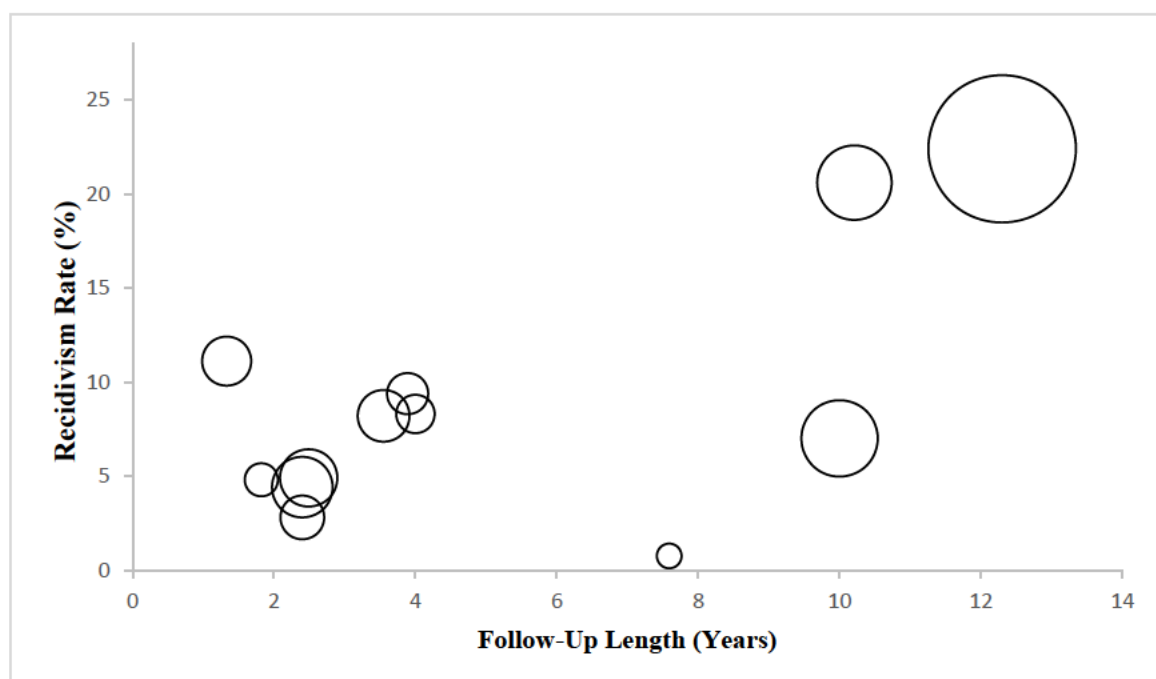
Violent recidivism. For violent reoffending, the treatment group reoffended at a lower rate than the comparison group. A large variance between Indigenous and non-Indigenous

people appeared, with Indigenous people more likely to violently reoffend than non-Indigenous people. The Indigenous treatment cohort reoffended less than the comparative group. However, Indigenous people who completed treatment were twice as likely to engage in a violent offence post-treatment when compared with non-Indigenous people who completed treatment in the same program. Finally, and similar to the results for sexual recidivism, there was a marginal difference in the violent recidivism rates of treated Indigenous and non-Indigenous offenders in the comparison group.

Non-sexual or non-violent recidivism. When reviewing non-sexual and non-violent recidivism, the treatment group reoffended less than the comparison group. Indigenous people were also considerably more likely to offend in a non-sexual and non-violent manner than non-Indigenous people who engaged with treatment. There was no information to report on differences between Indigenous in treatment and Indigenous in a comparison group or non-Indigenous in a comparison group.

Figure 3.3

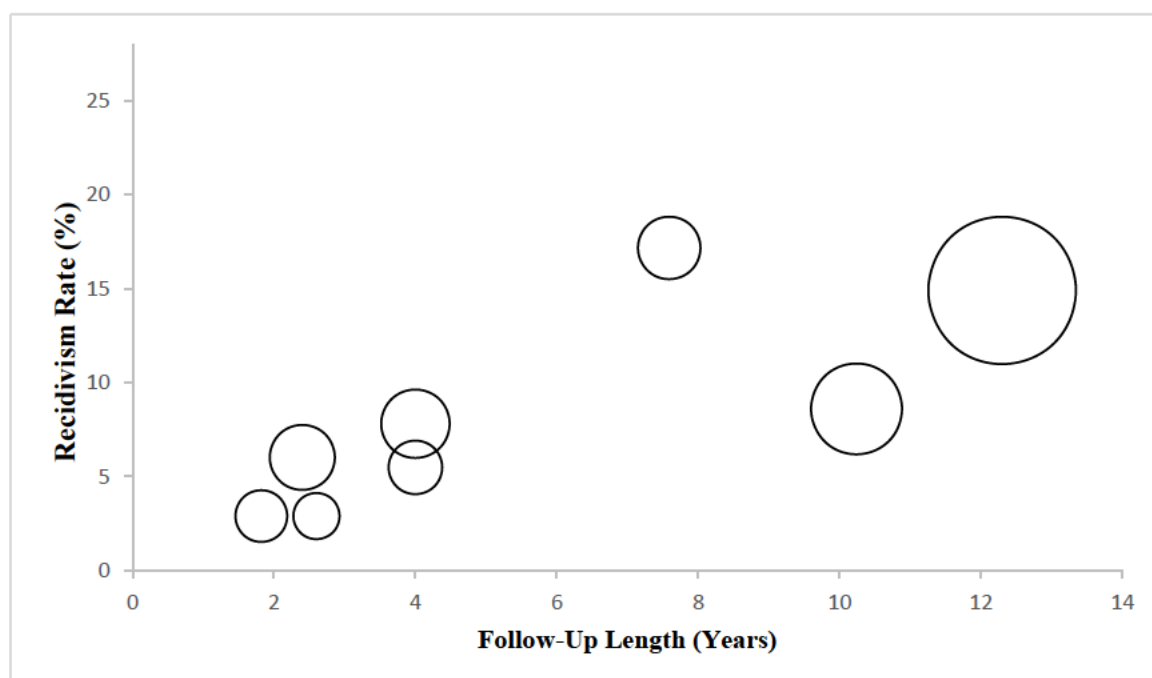
Sexual Recidivism Rate, as a Function of Recidivism for Indigenous Treatment Sample



Note. Bubble size is proportional to the sample size.

Figure 3.4

Sexual Recidivism Rate, as a Function of Recidivism for Non-Indigenous Treatment Sample



Note. Bubble size is proportional to the sample size.

3.4.9.2 Recidivism Comparison Between Age, Group Type and Indigenous Status

To provide a more nuanced analysis of recidivism, an investigation into the differences between recidivism rates according to Indigenous status and age for three groups was conducted: total, treatment and comparison. It is important to note at this point that an adult was defined as an individual above the age of 18 years. When sexual offending that occurred after the completion of treatment was reviewed, the total group of adults were more likely to reoffend than the total group of young people. This finding was consistent when comparing Indigenous adults and young people to non-Indigenous adults and young people. However, Indigenous young people were slightly more inclined to reoffend sexually than Indigenous adults. These outcomes were consistent across the treatment and the comparison groups. Table 3.26 provides the sexual, violent and non-sexual or non-violent recidivism findings according to Indigeneity and age for the three groups.

Although young people also reoffended violently more than adults in the total group and treatment group, there was insufficient information to report on young people in the comparison group. Indigenous adults overall were three times more likely to violently reoffend during the risk-to-reoffend period than non-Indigenous adults, and Indigenous young people were twice as likely to reoffend than non-Indigenous youth. Again, similar findings were reported for the treatment group and the comparison group.

Finally, the non-sexual or non-violent (general offending) recidivism group was reviewed. There was limited information for the comparison group—a result of few studies reporting on general offending within a comparative group. Nonetheless, these findings were similar to violent reoffending in that young people were more than three times as likely to reoffend in this manner than adults. Where the analysis permitted, Indigenous people were more likely to generally offend during the risk-to-reoffend period than non-Indigenous people.

Table 3.26*Recidivism Rates According to Age, Group Type and Indigenous Status*

Recidivism	<i>K</i>	<i>N</i>	<i>R</i>	%
Sexual Total				
Total adults	9	4,634	516	11.14
Total young people	4	912	85	9.32
Indigenous adults	9	1,100	153	13.91
Non-Indigenous adults	7	3,081	315	10.22
Indigenous young people	4	265	40	15.09
Non-Indigenous young people	4	535	35	6.54
Sexual Treatment Group				
Total adults	9	2,770	327	11.81
Total young people	4	659	62	9.41
Indigenous adults	9	746	135	18.10
Non-Indigenous adults	6	1,295	144	11.12
Indigenous young people	3	170	25	14.71
Non-Indigenous young people	3	416	29	6.97
Sexual Comparison Group				
Total adults	5	1,668	179	10.73
Total young people	1	237	23	9.70
Indigenous adults	2	166	18	10.84
Non-Indigenous adults	2	807	66	8.18
Indigenous young people	0	-	-	-
Non-Indigenous young people	0	-	-	-
Violent Total				
Total adults	6	3,517	743	21.13
Total young people	4	912	268	29.39
Indigenous adults	5	696	288	41.38
Non-Indigenous adults	3	2,134	297	13.92
Indigenous young people	4	265	121	45.66
Non-Indigenous young people	4	535	119	22.24
Violent Treatment Group				
Total adults	6	2,132	541	25.38
Total young people	3	586	168	28.67
Indigenous adults	5	570	229	40.18
Non-Indigenous adults	2	755	183	24.24
Indigenous young people	3	170	77	45.29
Non-Indigenous young people	3	416	91	21.88
Violent Comparison Group				
Total adults	4	1,385	203	14.66

Total young people	0	-	-	-
Indigenous adults	2	166	59	35.54
Non-Indigenous adults	2	807	114	14.13
Indigenous young people	0	-	-	-
Non-Indigenous young people	0	-	-	-
Other Total				
Total adults	2	454	73	16.08
Total young people	3	586	303	51.71
Indigenous adults	1	45	7	15.56
Non-Indigenous adults	-	-	-	-
Indigenous young people	3	170	124	72.94
Non-Indigenous young people	3	416	180	43.27
Other Treatment Group				
Total adults	2	203	31	15.27
Total young people	4	586	303	51.71
Indigenous adults	1	45	7	15.56
Non-Indigenous adults	0	-	-	-
Indigenous young people	3	170	124	72.94
Non-Indigenous young people	3	416	180	43.27
Other Comparison Group				
Total adults	1	251	42	16.73
Total young people	0	-	-	-
Indigenous adults	0	-	-	-
Non-Indigenous adults	0	-	-	-
Indigenous young people	0	-	-	-
Non-Indigenous young people	0	-	-	-

Note. Although some studies included both young people and adults, these studies did not differentiate between the two cohorts and were, therefore, not included in this section of the analysis.

It is evident in Table 3.26 that those individuals who participated in treatment reoffended less than those in the comparison group. Types of treatment were, therefore, investigated to see the differences in recidivism depending on the type of treatment received and Indigenous status (see Table 3.27). Indigenous people in the cognitive behavioural program were almost twice as likely to sexually reoffend when compared with non-Indigenous people receiving the same treatment. However, the difference between Indigenous

and non-Indigenous offenders who received MST was marginal. The sexual recidivism rates of Indigenous people partaking in CBT were halved when compared with Indigenous people receiving CBT blended with culturally relevant treatment. However, the lowest sexual recidivism rates were observed for Indigenous people who engaged solely in culturally relevant treatment. Although this finding must be interpreted with caution given the small sample size, it offers an important insight into the more successful programs needed for Indigenous people who have sexually offended.

Table 3.27

Sexual Recidivism Rates According to Treatment Type and Indigenous Status

Sexual Recidivism	<i>K</i>	<i>N</i>	<i>R</i>	%
Cognitive Behavioural Therapy				
Indigenous	4	483	117	24.22
Non-Indigenous	3	940	128	13.62
Multi-Systematic Therapy				
Indigenous	2	68	4	5.88
Non-Indigenous	2	159	7	4.40
Culturally Relevant Treatment				
Indigenous	1	107	2	1.87
Cognitive Behavioural, Culturally Relevant				
Indigenous	6	365	39	10.68
Non-Indigenous ^a	4	612	38	6.21

Note. ^aThe non-Indigenous within these programs did not take part in the culturally relevant aspects of treatment.

The violent offences that occurred post-treatment were also investigated to see the differences in results for Indigenous and non-Indigenous participants between interventions (see Table 3.28). There was limited information because not all studies reported on violent reoffending. In all modes of treatment, Indigenous people violently offended at a higher rate than non-Indigenous people post-treatment. Indigenous people who participated in cognitive behavioural treatment were more likely to violently offend than those who attended a multi-systemic program. However, those Indigenous participants in the blended approach were the

least likely to violently reoffend post-treatment. The limited data regarding non-sexual and non-violent offences that occurred post-treatment did not permit for an analysis of the topic.

Table 3.28

Violent Recidivism Rates According to Treatment Type and Indigenous Status

Violent Recidivism	<i>K</i>	<i>N</i>	<i>R</i>	%
Cognitive Behavioural Therapy				
Indigenous	2	443	208	46.95
Non-Indigenous	1	670	182	27.16
Multi-Systematic Therapy				
Indigenous	2	68	25	36.76
Non-Indigenous	2	159	29	18.24
Cognitive Behavioural, Culturally Relevant				
Indigenous	4	229	73	31.88
Non-Indigenous ^a	2	342	63	18.42

Note. ^a The non-Indigenous within these programs did not take part in the culturally relevant aspects of treatment.

3.4.9.3 Recidivism Comparison Between Countries, Group Type and Indigenous Status

A between countries comparison of sexual, violent and non-sexual or non-violent reoffending that occurred during the prescribed risk-to-reoffend period was conducted, differentiating between Indigenous and non-Indigenous cohorts within the respective countries. The results were also reported for all participants, those who received treatment and the comparison cohort. It is important to compare the recidivism results between countries—and between Indigenous and non-Indigenous participants within each country—to see where higher recidivism may be occurring because this can increase the overall recidivism rates. The results in the preceding section must be interpreted with caution given the limited number of studies between the three countries. Table 3.29 provides an overview of the results for each country for all studies ($k = 14$) and those studies with a comparison group ($k = 6$).

The total sexual recidivism rate between the three countries for *all* participants was highest in New Zealand ($k = 2$; 13.75%), followed by Canada ($k = 6$; 11.90%) and Australia (k

= 6; 8.39%). However, New Zealand's *treatment* group was least likely to sexually reoffend (3.99%) than those receiving treatment in Canada (13.07%) and Australia (9.80%). Because treatment groups outnumbered comparative groups across all studies, treatment group recidivism rates were higher than in the comparison groups for Australia and New Zealand, but not Canada. However, these figures dropped when excluding the studies without a comparison group ($k = 8$). People who received treatment in New Zealand were considerably less likely to sexually reoffend than the comparison group (3.99% v. 19.11%), with similar success reported in Canada (4.92% v. 11.40%). Notably, in Australia, the treatment had a negative effect on the successful rehabilitation of people who have sexually offended. Here, the treatment group was more inclined to sexually reoffend than the comparison group (11.03% v. 7.26%).

Overall, Indigenous people in Australia sexually offended less during the risk-to-reoffend period ($k = 6$; 10.27%) than Indigenous people in Canada ($k = 6$; 14.73%) and New Zealand ($k = 2$; 11.69%). The results changed when focusing on the Indigenous treatment groups in each country. The sexual recidivism among treated Indigenous people in Canada (14.73%) was double that of Australia (7.61%) and more than three times as much as in New Zealand (3.99%). It was only possible to compare Australia and Canada when reducing studies to those with a comparative group. The two New Zealand studies had a comparison group but did not distinguish between Indigenous and non-Indigenous recidivism rates within these groups. Nonetheless, the Indigenous treatment group sexually reoffended at a lower rate than Indigenous in the comparison groups for both Australia (4.76% v. 9.62%) and Canada (4.92% v. 11.40%).

A comparison between the sexual recidivism rates of Indigenous and non-Indigenous participants who received treatment and those in the comparison groups was performed. In Australia, the non-Indigenous treatment group was less likely to sexually reoffend in

comparison to the Indigenous treatment group (4.51% v. 7.61%). Similar differences were observed in Canada between the non-Indigenous and Indigenous treatment groups (12.13% v. 16.29%). More notable differences were detected in New Zealand where the Indigenous treatment group was more than four times as likely to sexually reoffend than the non-Indigenous treatment group (28.13% v. 6.43%).

Table 3.29*Sexual Recidivism Comparison Between Countries, Group Type and Indigeneity*

Sexual Recidivism	K = 14				K = 6			
	K	N	R	%	K	N	R	%
Australia								
Total	6	2,443	205	8.39	3	2,171	189	8.71
Treatment group	6	1,133	111	9.80	3	861	95	11.03
Comparative group	3	1,294	94	7.26	3	1,294	94	7.26
Indigenous total	6	331	34	10.27	1	73	6	8.22
Indigenous treatment	5	184	14	7.61	1	21	1	4.76
Indigenous comparison	1	52	5	9.62	1	52	5	9.62
Non-Indigenous total	5	1,420	83	5.85	1	336	14	4.17
Non-Indigenous treatment	3	244 ²	11	4.51	1	85	4	4.71
Non-Indigenous comparison	2	807	66	8.18	1	199	10	5.03
New Zealand								
Total	2	873	120	13.75	2	873	120	13.75
Treatment group	2	376	15	3.99	2	376	15	3.99
Comparative group	2	497	95	19.11	2	497	95	19.11
Indigenous total	2	231	27	11.69	0	-	-	-
Indigenous treatment	2	96	27	28.13	0	-	-	-
Indigenous comparison	2	135 ¹	-	-	0	-	-	-

Non-Indigenous total	2	642	121	18.85	0	-	-	-
Non-Indigenous treatment	2	280	18	6.43	0	-	-	-
Non-Indigenous comparison	2	362 ³	-	-	0	-	-	-
Canada								
Total	6	2,337	278	11.90	1	175	16	9.14
Treatment group	6	2,027	265	13.07	1	61	3	4.92
Comparative group	1	114	13	11.40	1	114	13	11.40
Indigenous total	6	910	134	14.73	1	175	16	9.14
Indigenous treatment	6	743	121	16.29	1	61	3	4.92
Indigenous comparison	1	114	13	11.40	1	114	13	11.40
Non-Indigenous total	4	1,232	146	11.85	0	-	-	-
Non-Indigenous treatment	4	1,187	144	12.13	0	-	-	-
Non-Indigenous comparison	0	-	-	-	0	-	-	-

Note. ¹ Although there were 135 Indigenous people in the comparison group, the information for this cohort was not provided across both studies. ²

There were originally 764 included in this cohort, but the authors did not report the recidivism rates for 520 participants. ³ The authors do not delineate between Indigenous and non-Indigenous in the comparison group when discussing recidivism.

In addition to sexual recidivism, violent recidivism was explored to understand the differences between countries, between those who received treatment and the comparison group and with reference to Indigeneity (see Table 3.30). Overall, there were higher rates of violent recidivism occurring in the risk-to-reoffend period in Australia (17.03%) compared with New Zealand (11.83%). However, violent recidivism among all participants was three times as likely to occur in Canada (34.28%). These differences were consistent when focusing on the treatment group in New Zealand (9.71%), Australia (17.26%) and Canada (34.32%).

Studies were restricted to those with a comparison group that reported on violent recidivism. Like sexual offending, the treatment group in Australia was more inclined to violently reoffend when compared when the comparison group (15.58% v. 12.68%). Similarly, the treatment group was less likely to reoffend in a violent manner in New Zealand (9.71 v. 13.55%) and Canada (21.31% v. 35.09%).

The analysis then focused on differences concerning Indigeneity and treatment. Only Australia and Canada reported this information. Indigenous people were considerably more likely to reoffend violently than non-Indigenous people in Australia (31.42% v. 12.11%) and Canada (45.52% v. 26.32%). The Canadian Indigenous treatment group was twice as likely to violently reoffend than the Australian Indigenous treatment group (47.66% v. 22.28; $k = 8$). However, the Indigenous treatment groups in both countries were less likely to reoffend when studies were restricted to those with a comparison group (see Table 3.30 for an overview of violent recidivism). Interestingly, in Australia, the Indigenous treatment cohort was more likely to reoffend violently than the non-Indigenous comparison group (22.28% v. 14.26%). The differences between the two groups further increased when studies were restricted to those with a comparison group in Australia. The Indigenous treatment group was almost five times as likely to violently reoffend than the non-Indigenous comparison group (14.29% v. 2.51%).

Table 3.30*Violent Recidivism Comparison Between Countries*

Violent Recidivism	K = 14				K = 6			
	K	N	R	%	K	N	R	%
Australia								
Total	6	2,443	416	17.03	3	2,171	357	16.44
Treatment group	5	1,060	183	17.26	2	796	124	15.58
Comparative group	2	1,057	134	12.68	2	1,057	134	12.68
Indigenous total	6	331	104	31.42	1	73	22	30.14
Indigenous treatment	5	184	41	22.28	1	21	3	14.29
Indigenous comparison	1	52	19	36.54	1	52	19	36.54
Non-Indigenous total	5	1,420	172	12.11	1	336	6	1.79
Non-Indigenous treatment	3	244	30	12.30	1	85	1	1.18
Non-Indigenous comparison	2	807	114	14.26	1	199	5	2.51
New Zealand								
Total	1	389	46	11.83	1	389	46	11.83
Treatment group	1	175	17	9.71	1	175	17	9.71
Comparative group	1	214	29	13.55	1	214	29	13.55
Indigenous total	0	-	-	-	0	-	-	-
Indigenous treatment	0	-	-	-	0	-	-	-
Indigenous comparison	0	-	-	-	0	-	-	-

Non-Indigenous total	0	-	-	-	0	-	-	-
Non-Indigenous treatment	0	-	-	-	0	-	-	-
Non-Indigenous comparison	0	-	-	-	0	-	-	-
Canada								
Total	3	1,597	549	34.38	1	175	53	30.29
Treatment group	3	1,483	509	34.32	1	61	13	21.31
Comparative group	1	114	40	35.09	1	114	40	35.09
Indigenous total	3	670	305	45.52	1	175	53	30.29
Indigenous treatment	3	556	265	47.66	1	61	13	21.31
Indigenous comparison	1	114	40	35.09	1	114	40	35.09
Non-Indigenous total	2	927	244	26.32	0	-	-	-
Non-Indigenous treatment	2	927	244	26.32	0	-	-	-
Non-Indigenous comparison	0	-	-	-	0	-	-	-

Finally, non-sexual and non-violent reoffending was examined to determine the differences between countries, group types and Indigeneity. It is acknowledged that only four studies reported this information. There was no inclusion of non-sexual and non-violent recidivism reported in the New Zealand sample. The following section, therefore, compares results in Australia and Canada. In total, non-sexual and non-violent reoffending was more prone in Canada (48.47%) than in Australia (29.66%).

The Indigenous treatment group in Australia encompassed fewer non-sexual and non-violent offences (53.98%) than the Indigenous treatment group in Canada (68.63%). There were no Indigenous comparison groups in the two countries to effectively compare the two groups. However, in comparison with the Indigenous treatment groups, the non-Indigenous treatment groups reoffended at a lower rate in both Australia (47.17%) and Canada (40.09%). Table 3.31 provides an overview of non-sexual and non-violent recidivism between countries, group types and Indigenous status.

Table 3.31*Non-Sexual and Non-Violent Recidivism Comparison Between Countries*

Non-Sexual, Non-Violent Recidivism	K	K = 14			K	K = 6		
		N	R	%		N	R	%
Australia								
Total	4	681	202	29.66	1	409	66	16.14
Treatment group	4	430	160	37.21	1	157	24	15.19
Comparative group	1	251	42	16.73	1	251	42	16.73
Indigenous total	3	113	61	53.98	0	-	-	-
Indigenous treatment	3	113	61	53.98	0	-	-	-
Indigenous comparison	0	-	-	-	0	-	-	-
Non-Indigenous total	2	159	75	47.17	0	-	-	-
Non-Indigenous treatment	2	159	75	47.17	0	-	-	-
Non-Indigenous comparison	0	-	-	-	0	-	-	-
New Zealand								
Total	0	-	-	-	0	-	-	-
Treatment group	0	-	-	-	0	-	-	-
Comparative group	0	-	-	-	0	-	-	-
Indigenous total	0	-	-	-	0	-	-	-
Indigenous treatment	0	-	-	-	0	-	-	-
Indigenous comparison	0	-	-	-	0	-	-	-

Non-Indigenous total	0	-	-	-	0	-	-	-
Non-Indigenous treatment	0	-	-	-	0	-	-	-
Non-Indigenous comparison	0	-	-	-	0	-	-	-
Canada								
Total	1	359	174	48.47	0	-	-	-
Treatment group	1	359	174	48.47	0	-	-	-
Comparative group	0	-	-	-	0	-	-	-
Indigenous total	1	102	70	68.63	0	-	-	-
Indigenous treatment	1	102	70	68.63	0	-	-	-
Indigenous comparison	0	-	-	-	0	-	-	-
Non-Indigenous total	1	257	105	40.09	0	-	-	-
Non-Indigenous treatment	1	257	105	40.09	0	-	-	-
Non-Indigenous comparison	0	-	-	-	0	-	-	-

3.5 Discussion

Study one explored the characteristics of treatment provided to Indigenous people within the risk, need and responsivity framework, the post-treatment sexual and general recidivism rates and the quality of studies. Four countries (Australia, New Zealand, Canada and the US) were targeted for their similarities in Indigenous populations given colonial histories and political entities underpinned by Western democracies. A systematic review was conducted—utilising a descriptive analytic method to collate and capture demographic, treatment and recidivism data—with findings summarised and reported using a narrative synthesis approach (Popay et al., 2006). This type of methodological approach has become a valued strategy for synthesising and understanding a diverse type of available literature (Farrington, 2003; Oremus et al., 2012; Uman, 2011). Systematic narrative reviews are effective because they capture and reflect on the available evidence to provide a foundation for what is known and make recommendations for future research directives (Finney et al., 2024).

The discussion section provides the answers to research questions one, two, four and six:

RQ1. What treatments are most reported on for Indigenous people who have sexually offended?

RQ2. What are the sexual and general recidivism rates following treatment for Indigenous people who have sexually offended according to culturally specific and generic treatments?

RQ4. What is the quality of research regarding treatment programs for Indigenous people who have sexually offended?

RQ6. Does treatment for Indigenous people who have sexually offended adhere to the fundamental principles of risk, need and responsivity?

Research questions one and six are answered from information derived from the types of treatment that are provided to Indigenous people—whether that be culturally specific or Western—and how treatment fits within the risk, need and responsivity framework. The fourth research question examines the methodological quality of included studies, as well as the complexities of conducting research with people who have sexually offended. A further discussion is provided on how this may affect findings. Finally, research question two is answered through a descriptive analysis of raw findings reported from studies. These findings lead into the identification of gaps in empirical research and where future studies should direct attention.

3.5.1 The Characteristics of Treatment for Indigenous People Within a Risk, Need and Responsivity Framework

It is imperative that treatment provided to offender populations adheres to the fundamental principles of risk, need and responsivity. The following section discusses the treatment characteristics findings within Bonta and Andrews' (2007) risk, need and responsivity framework and answers two research questions:

RQ1. What treatments are most reported on for Indigenous people who have sexually offended?

RQ6. Does treatment for Indigenous people who have sexually offended adhere to the fundamental principles of risk, need and responsivity?

3.5.1.1 Treatment Characteristics Within the Risk Principle

The present review found that less than half of studies reported the risk assessment tool used to determine the level of risk for participants [3, 4, 9, 10, 11], with another study not reporting the name of the risk tool [6]. This made it difficult to understand whether treatment programs were adequately adhering to the risk principle and whether the risk tools were adequate for Indigenous people. Only one study [4] cited using a risk assessment tool that is designed for Indigenous people (the 3-predictor model). The remaining tools were not specifically designed for Indigenous people (Static-99, Stable-2000, Offender Risk Needs Inventory–Revised, Risk of Re-Offending–Prison Version, Treatment Intervention and Progress Scale for Sexual Abusers with Intellectual Disabilities, J-SOAP-II and VRS-SO). Few programs utilised more than one risk assessment tool [3, 4] because of the different types of treatment provided within the program according to level of risk, Indigenous status and participants who may have a disability. Although it must be acknowledged that participant pools included non-Indigenous people, it is concerning that these tools were implemented with Indigenous participants given they are not empirically validated for Indigenous people.

It was not uncommon for studies to report including participants with established offending histories. When defined as prior offending to the index sexual offence for which participants were attending treatment, seven studies encompassed participants with established sexual offending histories [3, 4, 9, 10, 11, 13, 14]. Of these, four studies had participants with prior violent offences [2, 4, 9, 14] and two noted containing participants with prior non-sexual and non-violent offences [2, 9]. Some studies also reported that participants had received prior treatment for sexual offending [7, 13, 14] and other general offending [3]. It is, therefore, conceivable this was the determining factor for the medium and high categorisation of participants in studies reporting the information [3, 4, 9, 10, 11]. Although these findings demonstrate the heightened risk of some participants receiving

treatment because of prior sexual and violent offence histories, adequate tools are required for the prediction of risk to ensure treatment provided to participants is effective in reducing recidivism.

As mentioned, the risk principle stipulates that treatment intensity for people who have sexually offended should match the level of risk-to-reoffend presented (Bonta & Andrews, 2007). High-intensity treatment should, therefore, be reserved for those individuals at significant risk of reoffending, while others considered low risk should receive minimal or no services (Hanson & Yates, 2013; Lovins et al., 2009). This strategy is an intensive approach to treatment for low-risk offenders and can be iatrogenic and increase the risk of recidivism (Hanson & Yates, 2013). Rather, correctional interventions such as community supervision should be employed as an alternative to treatment for people deemed a low risk of recidivism (Hanson, Harris, et al., 2014; Hanson & Yates, 2013). Because treatment was required for Indigenous participants across all studies in this review, reliable risk assessment tools must be used to calculate and assess the level of risk presented by Indigenous people (Helmus, 2018). These calculations serve as the foundation for determining the correct ‘dosage’ of treatment required for Indigenous people, such as the type and duration of treatment necessary to reduce the risk of reoffending.

Illuminating these issues, Myer (2019) provided evidence that the Static-99, a commonly used tool in the present review, is unable to effectively predict new sexual reconvictions in a sample of Native American people. Moreover, Allan (2015, 2018, 2020) expressed concern regarding the use of the Static-99 tool among Australian Justice Department employees, stating it has not been validated for Indigenous men. Canadian courts have also strongly cautioned against the use of the Static-99 and the VRS-SO tool for First Nations people (*Ewert v. Canada* [2015]), which were identified tools used by programs in this review [3, 4]. Given these concerns regarding the reliability of the instruments used by

psychologists when assessing Indigenous people who have sexually offended (see *DPP v Mangolamara* [2007]), stronger empirical research is needed to determine more appropriate tools for assessing the risk of Indigenous people who have sexually offended prior to treatment.

Adding to these issues, when addressing the risk principle, practitioners and program facilitators are tasked with providing the correct dosage of treatment to Indigenous people on the basis of risk assessment tool outcomes. The level of treatment required is an ambiguous question and arises from concerns regarding the need to match treatment to the level of risk posed by the individual. To alleviate potential issues, actuarial tools are used to determine risk and, therefore, the level of treatment required. However, as has been established, the actuarial tools used to determine risk for Indigenous people are neither empirically strong nor effective in predicting risk.

In the present review, the average length of treatment (dosage as determined by the risk assessment tools) was longest in programs from Canada [3, 7, 10, 11, 12]. Treatment offered in Canada was double that of programs delivered in Australia [2, 4, 6, 9, 14] and New Zealand [13]. However, only one New Zealand program provided information on treatment length. The average length of treatment across all studies providing the information [2, 3, 4, 6, 7, 9, 10, 12, 13, 14] is consistent with previous meta-analyses and ranges from 13.22 months (Reitzel & Carbonell, 2006) to approximately 16 months (Schmucker & Lösel, 2017; Winokur et al., 2006). Participation length from those studies providing the information shows treatment was longer for Indigenous people [2, 3, 6, 7, 9, 12, 13, 14] than non-Indigenous participants [2, 7, 9, 14] by approximately 5 months. One explanation could be the additional time clinicians spend consulting with the community to support the treatment of Indigenous people. For example, one study [2] noted in their ecological approach to treatment that clinicians spent significantly more time facilitating Indigenous clients' treatment. The

added length of time was the result of clinicians consulting with community members and other professions in the Indigenous young person's social ecology. It may be hypothesised this reasoning is consistent with other studies included in the review; however, limited data detailing this information means the hypothesis cannot be confirmed.

In concluding the risk principle, research is needed to empirically test current actuarial risk assessment tools for Indigenous people who have sexually offended and ensure treatment dosages align with risk. Future research should, therefore, explore the length and intensity of treatment to effectively address risk—determined using current actuarial tools—for Indigenous people who have sexually offended. This information will help to determine the correct treatment dosage for Indigenous people, which is important because an incorrect dosage reduces enthusiasm and increase the risk of burnout (Marshall et al., 2006). Treatment effectiveness may differ as to whether Indigenous people are participating in Western treatment or programs of cultural relevance. Future research should investigate in more depth the treatment dosage requirements for Indigenous people engaging in different types of treatment for sexual offending and across varying levels of risk. These aims have guided studies 2 and 3 (see, e.g., Chapters 4 and 5).

3.5.1.2 Treatment Characteristics Within the Need Principle

In the present review, there was basic and limited information available regarding the individual or collective criminogenic needs of participants. It was more common for studies to report on information regarding victims, which formed the theme 'victim characteristics'. Although definitive conclusions cannot be drawn from this information, it remains an important aspect of the discussion given that the characteristics of victims form an integral part of identifying criminogenic needs. It is important to acknowledge that information on the characteristics of the victims was not routinely reported, however male and female victims were listed in the current review. Participants tended to victimise young people below the age

of 18 years [5, 8, 10, 13] or young people and adults [11, 14]. Deeper analysis found that studies with victims below 18 years focused on treatment for young people [5] or child sexual offenders [8, 13] who, in turn, had young victims. There was, however, an overwhelmingly higher rate of intra-familial and extra-familial offending in comparison with offending against a stranger. Where studies reported the relationship between the victim and offender for Indigenous and non-Indigenous participants [4, 5, 7, 13, 14], there were no differences between the most common relationship type—both Indigenous and non-Indigenous people were more likely to offend against extra-familial victims, followed by offences against intra-familial victims. Although there was not enough information included in the studies to understand the association between victim type and risk level outcomes, it is reported in the literature that extra-familial offenders are more likely to sexually reoffend than intra-familial offenders (Hanson, 2002; Hills & Pfeifer, 2004; Howitt, 1995; Nilsson et al., 2014) because intra-familial offenders typically live functional lives outside their offending and having less extensive criminal histories (Hills & Pfeifer, 2004).

The studies, therefore, provided information on static risk factors and limited information on criminogenic needs. Although important information, static risk factors are unchangeable features from an individual's history and are better placed as the foundation for understanding risk. Comparatively, the need principle stipulates treatment should address the dynamic risk factors that conceptually and empirically have an association with reoffending and the persistence of crime (Bonta & Andrews, 2007; Hanson et al., 2009; Hanson & Morton-Bourgon, 2009; Hanson & Yates, 2013). When characteristics associated with recidivism are targeted, treatment programs are more likely to be effective.

Common dynamic risk factors identified within the need principle—and, therefore, subject to treatment paradigms—include distorted and deviant sexual interests, deficits in social and intimacy skills, poor emotional, sexual and behavioural regulations and offence-

facilitating beliefs (Andrews & Bonta, 2010; Bonta & Andrews, 2007; Hanson & Yates, 2013; Mann et al., 2010; Marshall, 2018). These dynamic behavioural and psychological risk factors are empirically linked to sexual offending. However, it is through the risk principle and the thorough assessment of risk that the underlying criminogenic needs of the treatment recipient are identified. Thus, by identifying the specific needs of the individual, interventions aim to address the specific issue relating to the offending behaviour and promote reduced recidivism post-treatment. However, this detailed information was not provided by studies within the present review.

It is important to note that these findings are generalised outcomes from a small number of studies reporting victim characteristics. There was no information reported on the specific criminogenic needs of participants. This does, however, highlight a key need for future research to report on the generalised criminogenic needs of participants as presented at their respective programs. This would provide a foundation of knowledge regarding participant needs and the influences of criminal behaviour, as well as supplementing the outcomes of the program. Although it must be acknowledged that most studies were published in commercial peer-reviewed academic journals—and that journals have specific length criteria—the results should be routinely published as supplementary materials. Publishing this information as supplementary materials in academic journals is imperative for the broader academic community and contributes to the development and refinement of evidence-based strategies. It also fosters a deeper understanding of the nuances involved in treatment for Indigenous people who have sexually offended, a considerably under-researched area in comparison with non-Indigenous people.

3.5.1.3 Treatment Characteristics Within the Responsivity Principle

Participants in the present review received a range of treatment types. Indigenous people were included in treatments using solely a Western treatment paradigm or treatment

involving a blended approach (defined here as a program that blends a Western therapeutic approach with culturally sensitive treatment relevant to the culture of the Indigenous person presenting at treatment). Westernised treatment paradigms were used in six studies [1, 2, 9, 10, 11, 14] and included CBT [10, 11, 14] and MST [2, 9], with a final program stating they used ‘psychological treatment’ [1].

Many past systematic reviews and meta-analyses have viewed participants as homogenous and have not reported on the Indigeneity status of participants (Carl & Lösel, 2021; Hanson et al., 2002, 2009; Hanson & Morton-Bourgon, 2005, 2019; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015, 2017; Walker et al., 2004; Winokur et al., 2006). However, systematic reviews and meta-analyses indicate that CBT and MST are the most common, and effective, treatment approaches for adults and young people who have sexually offended (Caldwell, 2016; Hanson et al., 2002; Kettrey & Lipsey, 2018; Kim et al., 2016; Reitzel & Carbonell, 2006; Walker et al., 2004; Winokur et al., 2006).

CBT emerged from combining the techniques of behavioural therapy with the clinical interests of cognitive–semantic theorists (refer to Meichenbaum, 1977) given the identified importance of cognition for positive behavioural change (Newell & Dryden, 1991). The approach is individualistic and targets an individual’s distorted thoughts, emotions and behaviours, as well as a range of mental health issues that may be experienced (Kim et al., 2016; Moster et al., 2008). However, these individualistic approaches do not align with Indigenous worldviews and the need to integrate community support into the healing process to achieve responsiveness. According to Duran (1995), individualism is an inherent part of Western-based perspectives and goes against Indigenous values of community and consensus.

Failing to recognise Indigenous collectivist values and their differences to the individualistic values of non-Indigenous populations can affect treatment at many levels. As

stated by R. Jones et al. (2002), programs underpinned by an individualistic framework may implement a one-on-one focus for intervention as opposed to a family or community focus and, thus, largely ignore the socio-historical contributions to offending, fail to provide experiential opportunities to reconnect with culture and make it difficult for Indigenous people to establish trust and rapport with program staff (R. Jones et al., 2002). In the present review, two-thirds of studies did not include family members as part of the treatment process [1, 3, 4, 5, 6, 10, 11, 13, 14]. Although a few studies indicated the use of MST—which is underpinned by an ecological framework targeting various influences within an individual’s life (Bischof & Rosen, 1997; Bronfenbrenner, 1979)—there remain fundamental and important differences between Western-developed treatment paradigms and those that undertake a blended approach.

Half of studies included in the review included a blended approach to treatment [3, 4, 5, 6, 7, 8, 12, 13]. This approach ensures Indigenous participants are exposed to culturally informed healing practices in conjunction with other evidence-based modalities. Thus, such an approach may see: (i) Indigenous people engage in traditional and spiritual healing practices (ceremonies, rituals and teachings); (ii) collaboration with Elders for guidance, support and cultural insights, to ensure an effective reintegration into the community with values that align to the community values and (iii) the inclusion of a trauma-informed approach that recognises the effects of historical trauma, colonisation and targeted governmental policies (Brown & Di Lallo, 2020; Dawes et al., 2017; Hovane et al., 2014; Redvers, 2020). These practices have the potential to reduce post-treatment recidivism—particularly when participants have a strong cultural identity (Pooley, 2020; Shepherd et al., 2018)—and improve socio-emotional wellbeing (Bourke et al., 2018; Gee et al., 2014). These culturally informed healing practices are therefore ‘blended’ with the commonly used Western treatment practices, such as CBT and MST. Given the non-completion of treatment

has a strong correlation to recidivism, an enhancement of service delivery through the responsivity principle may improve future outcomes.

Although there were more studies reporting a blended or cultural approach to treatment [3, 4, 5, 6, 7, 8, 12, 13], the vast majority of participants were treated using Western approaches [1, 2, 9, 10, 11, 14], with the majority of Indigenous people who received treatment also treated via a Western approach. This is despite the responsivity principle stipulating that treatment should be delivered in a manner that is conducive to change (i.e., general responsivity) and adaptive to the learning style, cognitive functioning, cultural background, motivation and other individual variables that influence treatment engagement and progress (i.e., specific responsivity; Andrews & Bonta, 2007). Most importantly, the responsivity principle stresses that people who sexually offend are not a homogenous demographic, but rather heterogeneous in various characteristics. Therefore, by viewing the participant as a unique individual and using evidence-based approaches, Indigenous participants should receive cultural or blended treatment to maximise the effects of the intervention and reduce the risk of reoffending. Given only approximately half of included studies provided culturally appropriate treatment, there needs to be greater emphasis on programs ensuring the structure of treatment is aligned to the needs of Indigenous people to produce positive outcomes.

It is, therefore, evident that culturally sensitive and responsive treatment is crucial to program effectiveness because such treatment can assist Indigenous people connect with culture (Gutierrez et al., 2018) and is particularly effective when the individual has existing ties to culture (Pooley, 2020). However, in this review, some of the information regarding aspects of treatment for Indigenous people was limited. For example, few studies reported on the cultural components of treatment that would be considered basic information. The majority of studies also lacked detailed information, such as background information on

program facilitators. The cultural competence of program facilitators is critical to creating an effective therapeutic environment for treatment (Gutierrez et al., 2018). A high level of cultural competence may result in treatment providers readily conveying program material in an appropriate culturally informed manner that facilitates uptake in treatment. Such an opportunity to connect with culture can contribute to the creation of cultural identity, which is a crucial component for healing (Gutierrez et al., 2018). Thus, it is important to assess the individual's level of acculturation to assist in the development and delivery of appropriate treatment strategies (Rojas & Gretton, 2007). Nevertheless, there must be clearly defined standards as to how this can be best achieved, something that is limited within the academic literature. It is, therefore, important that future studies and evaluations report on the cultural competence of facilitators delivering treatment and the methods used to assess individual acculturation.

In summation, although a mixture of treatment types were provided to Indigenous people—including specifically Western models of therapy and blended approaches—a larger proportion of Indigenous people received Western treatment. This has implications for treatment adhering to the fundamental principles of risk, need and responsivity. Treatment programs were mostly administering assessment tools that are not empirically validated with Indigenous people, which has implications for both addressing needs and addressing the elements of responsivity. Given non-adherence to the principles of risk, need and responsivity can increase sexual recidivism (Hanson et al., 2009), it is important that treatments aim to satisfy all principles but also report on how this has been achieved. As mentioned, there were difficulties analysing and commenting on the characteristics of treatment programs in the present review because of missing and inconsistent reporting of information. There is a clear need for future research to be directed towards investigating and evaluating treatment provided to Indigenous people who have sexually offended. Further, there needs to be a

methodical and formulated process for collecting and reporting on data. Although it is acknowledged that there are significant difficulties in collecting data regarding the effectiveness of treatment for all people who complete sexual offender programs, there needs to be consistency in the reporting of basic variables (a discussion on research quality and design is provided later in this chapter). The findings, however, do provide insight into the characteristics of treatment that is provided to Indigenous people in Australia, New Zealand and Canada.

3.5.2 Unweighted Descriptive Recidivism Outcomes

To be included in the systematic review, it was a requirement that studies provided information on sexual recidivism that occurred in a prescribed risk-to-reoffend period for Indigenous people separate to non-Indigenous people. In most instances, studies expanded on this and included violent and non-sexual or non-violent recidivism. The unweighted descriptive data retrieved from this review provided important information for both the conceptualisation of recidivism among people involved in the studies and the delineation between Indigenous and non-Indigenous status. Therefore, this section provides the answers to research question two:

RQ2. What are the sexual and general recidivism rates following treatment for Indigenous people who have sexually offended according to culturally specific and generic treatments?

Across all studies included in this systematic review, 10.67% of people sexually reoffended during the prescribed risk-to-reoffend periods. The initial interpretation of findings was that the unweighted recidivism rates for those participants in the treatment cohorts were slightly higher than those in the non-treatment comparison groups. This initial finding contradicted the vast majority of international literature, which stated that despite there being some unresolved concerns surrounding the way effectiveness is measured in sexual offender

treatment programs (Levenson & Prescott, 2014; Marshall & Marshall, 2007; Marshall & Marshall, 2008, 2010; Seto et al., 2008), treatment appears to be effective for those completing programs (Hanson et al., 2002, 2009; Hanson & Morton-Bourgon, 2005, 2019; Långström et al., 2013; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015, 2017; Walker et al., 2004; Winokur et al., 2006).

Upon further investigation, it was understood that only half of the studies included in the review contained a comparison group and this affected overall outcomes [1, 3, 4, 7, 8, 13, 14]. Consequently, the inflationary effect was caused by the larger number of participants in the treatment group (1,631 more than in the total comparison group) and not by treatment ineffectiveness. In addition, individual interpretation of each study's methodological approach suggested there was limited equivalence between the treatment and control groups. For example, in one study [1] the comparison group comprised participants who had sexually offended prior to the establishment of the program under investigation. It is, therefore, unknown as to whether these participants in the comparison group received treatment for their sexual offending elsewhere before the establishment of the program being reviewed.

Consistent with sexual reoffending, the recidivism rates for violent and 'other' reoffending were higher among the treatment group than the comparison group. However, the number of participants that remained in the treatment group was more than in the comparison groups. The larger sample size of treatment completers resulted in a larger proportion of offences because of the higher potential of an offence being committed. To navigate these difficulties, a between-studies summary of descriptive recidivism outcome data is provided to more effectively understand and review differences.

An in-depth investigation of the findings from the analysis communicated that Indigenous people were more likely to reoffend in all categories. Indigenous people who completed treatment were more likely to sexually reoffended than non-Indigenous

participants (5.73% difference). There was also a higher rate of sexual recidivism for Indigenous people in the comparison group when compared with non-Indigenous participants (2.66% difference). The discrepancies between Indigenous people and non-Indigenous people grew larger when investigating violent and other recidivism. The Indigenous treatment cohort was almost twice as likely to violently reoffend than the non-Indigenous treatment group, which was consistent when comparing the two comparison groups. Indigenous people were also considerably more likely to reoffend in the 'other' category when compared with non-Indigenous people who completed treatment. This provides evidence that treatment is not as effective for Indigenous people when compared with non-Indigenous people.

Several between-groups comparisons were made to understand these rates of recidivism in more depth. These results demonstrated that Indigenous people who completed treatment were less likely to sexually and violently reoffend post-treatment than Indigenous people who did not complete treatment. However, there were only minor discrepancies between the rates of sexual recidivism for Indigenous people who completed treatment and those in the non-Indigenous cohort who did not complete treatment. This finding was also consistent for violent recidivism. The lowest rates of sexual recidivism for Indigenous people were observed in treatments that solely focused on culturally relevant practices, followed by MST and the blended cognitive behavioural and culturally relevant treatment. The highest rates of sexual recidivism were observed in CBT. These findings are consistent with previous research by Gutierrez et al. (2018) who reported that Indigenous people with various offence types are less likely to reoffend when completing treatment, particularly when treatment incorporates cultural practices that are relevant to participants. Consistent with findings from the present systematic review, it is imperative that treatment is tailored to the Indigenous people engaged in treatment to ensure effective outcomes for the person and wider community safety.

The overall rate of sexual recidivism for all participants included in this review (10.67%) was relatively consistent with that reported in other systematic reviews and meta-analyses (Hanson et al., 2002; Kettrey & Lipsey, 2018; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2015). The average rate of recidivism among previous reviews ranges between 7.37% (Reitzel & Carbonell, 2006) and 12.3% (Hanson et al., 2002). However, as outlined in Table 3.32, the average rate of sexual recidivism for Indigenous participants was higher than all previously conducted reviews (Hanson et al., 2002, 2009; Kettrey & Lipsey, 2018; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015; Walker et al., 2004; Winokur et al., 2006). The findings suggest treatment is not as effective for Indigenous people compared with non-Indigenous participants, but effective when encompassing cultural components. It is, therefore, paramount that future programs ensure cultural standards are implemented and adhered to. Table 3.32 provides an overview of the recidivism results in comparison with all previous systematic reviews and meta-analyses investigating the effectiveness of treatment for people who have sexually offended between 2002 and 2018.

Table 3.32

Summary of Previous Systematic Reviews and Meta-Analytical Studies Conducted Between 2002–2018

Study	Studies (<i>k</i>)	Follow-Up	Sample Size			Sexual Recidivism		Non-Sexual Recidivism	
			TG (<i>n</i>)	CG (<i>n</i>)	Total	TG (%)	CG (%)	TG (%)	CG (%)
Past Reviews									
Hanson et al. (2002)	43	12m–16y (43m)	5,078	4,376	9,454	12.3	16.8	27.9	39.2
Hanson et al. (2009)	22	4.7y	3,121	3,625	6,746	10.9	19.2	31.8	48.3
Kettrey & Lipsey (2018)	8	12–75m	802	397	1,199	0–12.7	3.7–75	18.9–53.8	16.5–75
Lösel & Schmucker (2005)	69	5y	-	-	22,181	12	24	22.4	32.5
Reitzel & Carbonell (2006)	9	58.5m	1,301	1,685	2,986	7.37	18.93	-	-
Schmucker & Lösel (2008)	74	5.22y	9,512	12,669	22,181	11.1	17.5	22.4	32.5
Schmucker & Lösel (2015)	28	5.9y	4,939	5,448	10,387	10.1	13.7	32.6	41.2
Walker et al. (2004)	10	6y	644	-	644	-	-	-	-
Winokur et al. (2006)	11	6y	-	-		0–5	5–8	10–36	10–75
Present Review									

Total	14	5.39y	3,536	2,101	5,635	11.06	10.60	26.091, 42.332	14.661, 16.732
Indigenous	14	4.50y	1,083	499	1,730	15.84	10.84	41.351, 60.932	35.541
Non- Indigenous	11	3.25y	2,211	1,202	3,616	10.11	8.18	23.401, 43.272	14.131

Note. ¹ This information relates to violent recidivism. ² This information relates to 'other' recidivism.

3.5.3 Quality of Recidivism Research

Systematic reviews and meta-analyses have shifted in recent years to assess the quality of research included in reviews because the quality of included research can directly affect the overall quality and credibility of outcomes. There are many challenges, however, with conducting high-quality research utilising populations of people who have engaged in a sexual offence. The Maryland SMS was utilised in this study, which ranks the methodological quality of studies on a five-point scale to communicate outcomes. A score equating to three or above indicates a robust comparison group design with enough evidence to demonstrate the treatment program caused the reported effect (Sherman et al., 1998). The SMS is the most influential methodological quality scale in the criminological field (Farrington, 2003). The findings from the SMS are reiterated in this section to provide a deep understanding of scores in the present review and a discussion is provided in relation to the research designs of the included studies as well as the limitations. This provides an answer to research question four:

RQ4. What is the quality of research regarding treatment programs for Indigenous people who have sexually offended?

3.5.3.1 Challenges Conducting High-Quality Research

In the present review, one study [3] obtained a level four on the SMS and three studies reached level three [8, 13, 14], which is considered the minimum threshold for understanding ‘what works’ in offender treatment (Cook & Campbell, 1979; Farrington, 2003). The remaining studies were below the SMS minimum threshold [1, 2, 4, 5, 6, 7, 9, 10, 11, 12]. Three of these studies utilised a comparison group [1, 4, 7]; however, there were concerns regarding the matching of participants in the treatment and comparison groups and these studies received a level two. The remaining seven studies used a retrospective analysis of treated individuals and reported on the post-treatment recidivism rates without the use of a comparison group, receiving a level one [2, 5, 7, 9, 10, 11, 12]. Consequences arising from

uncontrolled designs include threats to the internal validity of studies because researchers are unable to examine the effect of no treatment in a comparative sample. As the studies were deficient in a comparison group, it cannot be determined that differences observed were because of the intervention alone and no other influencing factors (Harkins & Beech, 2007).

Consequently, the quality of research included in this review may be interpreted by the SMS as poor. However, the current project was designed with the strategic intent of including all published literature containing a sample of Indigenous people who had sexually offended and received treatment for their offence. No methodological restraints were placed on the inclusion criteria, and all studies were included to ensure a representative sample of the available evidence was obtained. The SMS was, therefore, used to score and provide a sound interpretation of the included studies as consistent with previous reviews and not as a tool for excluding studies.

This strategy differs from those recently employed by Kettrey and Lipsey (2018) and Schmucker and Lösel (2015), who restricted studies on general sexual offender populations to those of high methodological rigour (RCT and quasi-experimental designs). As seen in these two studies, limiting the inclusion of studies to those with methodological rigour inevitably reduces the overall number of studies encompassed in a review. Consistently, if the present review were to limit studies to those of methodological rigour, the total sample of studies would reduce to four [3, 8, 13, 14]. As a result, challenges would arise concerning generalisability and the ability of researchers to draw definitive conclusions, impeding the usefulness of information to policymakers, practitioners and treatment program developers.

That no studies in the present review received a level five on the SMS aligns with findings from Långström et al. (2013), who stated that there is limited methodologically strong scholarly literature concerning individuals at risk of sexual offending. The authors emphasised the logistical, legal and ethical challenges associated with designing

methodological strong studies for populations of people who had sexually offended (Långström et al., 2013). Other scholars (Levenson & Prescott, 2014; Marshall & Marshall, 2007) have also noted the challenges and inherent issues of conducting RCTs with sexual offenders. This assists in providing an explanation for the limited methodological rigour among studies examining treatment effectiveness for people who have sexually offended.

These findings on the limited number of high-quality studies in the present review may contribute to other scholarly work that indicates that methodologically rigorous designs are not appropriate for research with people who have sexually offended. That is, withholding treatment from Indigenous people who have sexually offended for the sake of a control group puts the community at risk (Levenson & Prescott, 2014) and can cause psychological distress to individuals who want to engage with treatment (Marshall & Marshall, 2007). Increased distress could also occur in circumstances where the individual is denied parole or other related problems that could arise from a lack of treatment engagement. Given any of the scenarios described above, the psychological disposition of the control group would negate any matching processes because typical RCT designs employ a placebo for control groups, which is not plausible for sexual offender treatment programs (Marshall & Marshall, 2007). Finally, in accordance with principles of RCT design, those participants that have treatment withheld should receive therapy as early as possible—typically after a reasonable follow-up period to measure relapse. Rates of reoffending for people who have sexually offended is relatively low and, therefore, a minimum five-year risk-to-reoffend period would be essential in a typical treatment study. Consequently, such an approach would result in the untreated group waiting a minimum of five years to receive treatment for sexual offences (Marshall & Marshall, 2007).

Some researchers have argued against the use of stringent high-quality methodological approaches to measure the effectiveness of treatment for people who have sexually offended

(Marshall, 1993; Marshall & Marshall, 2007, 2008, 2010). To communicate the difficulties of ascertaining the ‘gold standard’ of experimental research design, Smith and Pell (2003) performed a satiric evaluation of parachute effectiveness. The study tested the idea that observational methods must be verified with RCTs because of confounding and biasing effects. A comprehensive literature review suggested, however, that there were no RCTs conducted to test the effectiveness of parachutes in preventing death and injury to humans. Smith and Pell (2003) concluded by presenting two options: (i) researchers accept that, under exceptional circumstances, common sense might be applied when considering the potential risks and benefits of a treatment program and (ii) researchers continue to criticise programs deficient of an experimental design and would ‘demonstrate their commitment by volunteering for a double-blind, randomised, placebo controlled crossover trial’ testing the efficacy of parachutes (p. 1460).

The absence of such a design, therefore, does not correlate to a limitation given the inherent methodological challenges researchers are confronted with when investigating and measuring treatment outcomes for people who have sexually offended. The findings from the present review are an admission that the ‘gold standard’ of research is not the most appropriate method for observing the effects of treatment among sexual offender populations. Future systematic reviews can benefit from using the SMS as a method for communicating both the quality of studies and how the methodological approach affects outcomes of the review. However, reviews should not use the SMS as a tool for screening out potential studies unless necessary.

3.5.3.2 Limitations of Included Studies

The current review was challenged by a lack of information within the included studies. This lack of information generally centred around how treatment was delivered to participants, but also involved issues related to the delivery of treatment, treatment integrity

(quality of treatment and adherence to prescribed components and procedures) and aftercare services offered to participants post-treatment. Aftercare services are important to consider because they can skew results by producing a more positive effect for reduced recidivism given that participants may continue to engage in formal services outside the treatment program. By not including information on aftercare services, studies need to be viewed with caution. There was also insufficient information reported on participants who initially engaged in treatment but later dropped out and those who refused to engage in treatment. This is an important consideration because the published literature suggests that people who drop out and refuse to engage in treatment are more likely to sexually reoffend than treated offenders (Carl & Lösel, 2021; Edwards & Beech, 2004; Edwards et al., 2005; Finney et al., 2024; Hanson & Bussiere, 1998; Marques, 1999; Marques et al., 1994; Seager et al., 2004; Zimring, 2004). In addition, people who drop out or refuse treatment also have higher pre-treatment scores on actuarial instruments designed to assess recidivism (Olver et al., 2011).

There was also limited information presented on the characteristics of treatment in the programs. It may be assumed that the reported use of CBT or the culturally relevant aspects of some treatment programs initiated changes in participants' trajectories and, therefore, reduced recidivism. However, providing only limited information on the type of treatment implemented does not explain the specific cognitions or intricate details of treatment that resulted in changed behaviours. Providing detailed information on the specific components of treatment used for the sample could explain why the same treatment applied in two different studies did not have the same effects. Further, studies included in the systematic review and meta-analysis viewed participants as homogenous in their offending. For example, there was no differentiation between the treatment and recidivism information of those who were attending treatment for hands-on offending (a contact sexual offence) and those with hands-off offences (non-contact sexual offences). The aetiology and motivations, patterns of

offending and, therefore, treatment requirements for hands-on and hands-off offenders vary substantially (Andrade et al., 2006; Aslan & Edelmann, 2014; Babchishin et al., 2011; Gallo, 2020; Jung et al., 2013; McCarthy, 2010). Thus, although these two offender types have distinct differences, the information on recidivistic outcomes for both groups are absent.

3.5.4 Directions for Future Research

Systematic reviews are a beneficial methodological approach for identifying gaps in the available literature and opportunities for future research directions. In this review, four key areas have been identified where gaps in current international research exist allowing for the following recommendations for future research:

1. Researching treatment for Indigenous people who have sexually offended
2. Developing a centralised sexual offender treatment research repository
3. Meta-analysing the current sample of identified published research
4. Conducting a survey of routine practice

3.5.4.1 Researching Treatment for Indigenous People Who Have Sexually Offended

As made evident in this review, the available research on recidivism outcomes for Indigenous people who have sexually offended and received treatment is minimal. Much scholarly literature fails to delineate between recidivists who are Indigenous and non-Indigenous; rather, findings are generalised in a manner that would suggest sexual offenders are homogenous (Caldwell, 2016; Hanson et al., 2002; Kettrey & Lipsey, 2018; Kim et al., 2016; Reitzel & Carbonell, 2006; Walker et al., 2004; Winokur et al., 2006). Given the different treatment needs of Indigenous people, future research is, therefore, needed that has an explicit focus on reporting the outcomes for Indigenous people separately to those for non-Indigenous cohorts.

Building on the current findings and generating additional research to investigate sexual recidivism outcomes for Indigenous people would be beneficial for numerous reasons.

First, it would help in understanding why current treatment practices are not beneficial for reducing sexual recidivism and further contribute to providing a more definitive and empirical conclusion on enhancing outcomes.

As has been outlined, there are fundamental and important differences between Western-developed treatment paradigms and those that undertake a blended approach. A blended approach to treatment ensures Indigenous participants are exposed to culturally informed healing practices in conjunction with commonly used Western methods of psychological intervention. Culturally informed healing in blended approaches can include cultural ceremonies, rituals and teachings, as well as collaboration with Elders for guidance, support and cultural insights to ensure an effective reintegration into the community with values that align to the community values (Gutierrez et al., 2018; Hovane et al., 2014). However, it could also include a trauma-informed approach that recognises the effects of historical trauma, colonisation and targeted governmental policies. Additional research would, therefore, permit the identification of any disparities between treatment that is provided to Indigenous and non-Indigenous people, and allow treatment providers the opportunity to address these disparities after the research has been conducted. Ensuring treatment is tailored to the needs of Indigenous people, addressing historical and ongoing trauma and improving the outcomes involves a focus on cultural sensitivity and the appropriateness of treatment programs.

3.5.4.2 Developing a Centralised Sexual Offender Treatment Research Repository

As cemented in this review, there is limited research investigating recidivism outcomes for Indigenous people who have received treatment for sexual offending. This review has recommended more nuanced research but also calls for the establishment of a research repository into the treatment of Indigenous people who have sexually offended. Although ambitious, it is paramount that discussions continue regarding empirically tested

treatment for Indigenous people. Research is often not published in commercial journals because of non-statistically significant findings, which inflates the ‘file drawer problem’ where critical information goes unpublished (Rosenthal, 1979). A centralised research repository would provide a platform for researchers, evaluators, program facilitators and policymakers to document and share information and insights into treatment approaches, contributing to the development of best-practice approaches for the treatment of Indigenous people who have sexually offended.

Researchers and program facilitators could access the repository to inform their work and enhance the quality of programs provided to Indigenous people. In addition, policymakers and program developers can use information provided by the repository to create programs that adhere to the legal requirements of the criminal justice system, but that also align with the need for cultural consideration for Indigenous people. A research repository would also reduce the risk of the ‘file drawer problem’ occurring because of research remaining unpublished or becoming ‘grey literature’ (e.g., because of non-statistically significant findings). It is crucial to approach this initiative with cultural humility by involving key Indigenous stakeholders and prioritising the voices and perspectives of the communities involved in the studies. Collaboration and respect for Indigenous knowledge and traditions are key elements in the success of a research repository.

3.5.4.3 Meta-analysing the current sample of published literature

The current study has emphasised that research into the recidivism outcomes of Indigenous people who have sexually offended and received treatment is limited internationally. Most studies did not specifically set out to investigate post-treatment recidivism for Indigenous people given the treatment programs were not specifically designed to meet the needs of this cohort. Therefore, most Indigenous participants were a smaller sub-sample of the total non-Indigenous population within treatment programs. Given the small

sample of published literature internationally, and difficulties making strong conclusions with limited participants, it is a logical step for future research to combine the identified studies from this project and report the statistical effectiveness of treatment programs for Indigenous people collectively. This would see Indigenous people form a larger cohort to ensure stronger conclusion are produced. As such, the second study of this thesis uses a select sample of studies from the current project to conduct a meta-analysis for understanding the statistical effectiveness of treatment for Indigenous people who have sexually offended, compared to those who did not receive treatment, and non-Indigenous participants.

3.5.4.4 Conducting a Survey of Routine Practice

Finally, considering the review's major finding that recidivism outcomes for Indigenous people are an under-researched phenomenon internationally, it is paramount that a survey of routine practice be conducted. A survey of routine practice would bypass the issues of unpublished research by going directly to the program facilitators to understand the types of treatment provided to Indigenous people, but also how treatment is provided and whether—from the perspective of the facilitators—they are effective. Therefore, the third study of this thesis was a survey of sexual offender treatment programs throughout Australia. The survey was developed from the findings of this systematic review and aimed to provide a foundation for knowledge regarding the routine practice of treatment for Indigenous people who have sexually offended. In doing so, contact was made with the practitioners, program facilitators and experts who provide treatment to Indigenous people.

3.5.5 Limitations

The present review, as consistent with other reviews internationally, is limited to the information provided by authors. In some cases, studies provided minimal information on the therapeutic interventions provided to participants, meaning that the findings should be interpreted with caution given that some results are limited and inconsistent between studies.

Moreover, as there is a lag required to produce post-treatment recidivism results, much of the data from studies was collated prior to the year 2000.

Furthermore, because not all studies set out to evaluate the effectiveness of programs, there were difficulties in drawing definitive conclusions regarding the principles of treatment for Indigenous people. Therefore, conclusions derived from the systematic review are in accordance with the information that was available at the time. No studies provided self-reported recidivism information and, consequently, the review relies solely on official data from the criminal justice system. Official data only confirms the minimum number of offences committed by participants post-treatment because of sexual offending being an underreported crime—particularly in Indigenous communities given interpretations of violent behaviours, a lack of culturally appropriate services, language differences and a lack of trust in police (AIHW, 2020). Notwithstanding these limitations, this study is a valued contribution because it is a first insight into the characteristics of treatment provided to Indigenous people internationally, further providing critical insights into the types of treatment provided and recidivism post-treatment.

3.6 Study 1 Summary

Study one is the first systematic review in the international literature to narratively synthesise the available literature on recidivism outcomes for Indigenous people who have sexually offended and received treatment. This study used a comprehensive and scientifically rigorous approach to identify studies that were critically appraised through an extensive data extraction process. Novel findings with reference to the characteristics of treatment for Indigenous people and respective recidivism outcomes were provided. Over half of the programs reported using a blended approach to treatment—including Western and culturally relevant practices—with the remaining studies taking a purely Western approach. Overall, Indigenous people who completed treatment were less likely to reoffend sexually or violently,

with the lowest rates of recidivism observed from treatment utilising culturally relevant practices or a blended approach for Indigenous people. However, there were only minor discrepancies between the rates of sexual recidivism for Indigenous people who completed treatment and non-Indigenous people who did not complete treatment.

Despite these findings, the available literature was not methodologically advanced when analysed in accordance with the SMS. There was missing and inconsistently reported information between studies, making it difficult to provide a more definitive conclusion regarding adherence to the principles of risk, need and responsivity. Although the systematic review provides a detailed insight into the characteristics of treatment for Indigenous people who have sexually offended, there were significant gaps in scholarly knowledge and it was recommended that future research investigates treatment for Indigenous people who have sexually offended. Also identified were the need to establish a research repository for future research findings, a recommendation to combine the small sample of studies to understand the statistical effectiveness of treatment, and the need to commission a survey of routine practice to provide a foundation of knowledge regarding treatment provided to Indigenous people who have sexually offended.

The present chapter was a systematic narrative review of international literature. It examined the characteristics of treatment and descriptive recidivism outcomes for Indigenous people who have sexually offended in comparison to non-Indigenous people. To build on this, and to address a key research directive (section 3.5.4.3), study 2 combines Indigenous participants identified within study one to make stronger conclusions regarding treatments impact on reducing recidivism for Indigenous people and therefore addressing the issue of limited participants. This is achieved by conducting a meta-analysis that focuses on the statistical effectiveness of treatment for Indigenous people and factors influencing treatment effectiveness. Study two, presented in Chapter Four, begins with the aim and associated

research questions for the meta-analysis, which are followed by outlines of the methodological approach taken, the results and a detailed discussion of findings.

Chapter 4: Study 2

Chapter 3 presented a systematic narrative synthesis of international literature reporting on the recidivism outcomes of Indigenous people who had received treatment for sexual offending. The chapter reported on the characteristics of treatment and how it is situated within the risk, need and responsivity framework, the quality of included studies, and provided a descriptive analysis of unweighted recidivism post-treatment. In doing so, three recommendations for future research were raised. Chapter 4 (study 2) is an extension of Chapter 3 (study 1) and provides a statistical analysis of the effectiveness of treatment for Indigenous people and factors influencing treatment effectiveness. To achieve this, a meta-analysis was performed utilising those studies in the previous chapter that included a comparison group.

4.1 Research Aim

The second study was a meta-analysis utilising data obtained from study 1 (the systematic review of the literature). Here, the aim was to use statistical methods and synthesise data from the systematic review to understand the effectiveness of treatment for individual studies and in the context of all obtained studies.

4.2 Research Questions

Study two was guided by two of the overarching research questions:

RQ3. How effective is treatment in reducing the sexual recidivism rates of Indigenous people who have sexually offended post-treatment?

RQ5. What are the factors that affect treatment outcomes for Indigenous people receiving treatment for sexual offending?

4.3 Methodology

4.3.1 Design

Meta-analysis is a powerful approach using scientific standards to summarise and compare the results of empirical literature (Card, 2015; Sutton & Higgins, 2008; Turanovic & Pratt, 2021; Wells, 2009)—concerning, for instance, the effects of a specific crime prevention intervention on criminal offending (Wilson, 2001). This type of research synthesis integrates the findings of multiple independent tests of a similar hypothesis in an objective manner by treating each empirical study as a unit of analysis (Pratt, 2014). The meta-analysis can be conducted with two or more separate studies (Crombie & Davies, 2009; Deeks et al., 2019; Gough et al., 2017; Israel & Richter, 2011) and typically involves several steps: combining study-level effect sizes to estimate summary effect sizes; measuring, exploring and explaining heterogeneity; conducting sensitivity analyses; checking for publication bias and interpreting results (Gough et al., 2017). This quantitative approach is a useful tool for evidence-based research and policy development because it allows researchers to integrate data from multiple studies, increasing the statistical power and generalisability of results (Deeks et al., 2019).

4.3.2 Meta-Analysis Training

To undertake the meta-analysis and ensure statistical approaches would be planned and conducted accurately, a meta-analysis webinar course was undertaken. The six-week course was conducted by Dr William M. Bannon, Jr. The webinar covered the following topics:

1. Introduction to meta-analysis
2. Standardising effect sizes
3. Developing a coding protocol and issues relating to variance estimation
4. Performing a meta-analysis using SPSS
5. Publication bias and moderator analysis
6. Reporting a quality meta-analysis

The formulas utilised in the meta-analysis and presented below are drawn from the meta-analysis webinar training.

4.3.3 Planned Analysis

Meta-analyses follow a complex statistical procedure over several steps. However, the statistical approach taken can vary depending on the data being used. This section discusses step-by-step how the analysis was conducted.

4.3.3.1 *Effect Size Calculation*

Effect size is a core analytical unit for quantitative synthesis and demonstrates the degree to which a program has been shown to change the criminality of participants. It, therefore, captures the direction and size of the effect of a treatment program—in contrast with a comparison group—on a measurement of outcome among the study population (Gough et al., 2017). Depending on the analysis conducted, a statistical test will inform researchers that the probability or likelihood that a difference between the treatment and comparison group has occurred on a given outcome measure was more than chance alone (Gough et al., 2017). An effect size tells researchers the magnitude of that difference and its direction—for example, the size of the difference between a cohort of treated sexual offenders and a cohort of untreated sexual offenders, and which group had statistically better outcomes.

There are numerous methods for calculating the effect size depending on the type of data available, including effect sizes derived from means (Cohen's *d* or Hedge's *G*), binary data (risk ratios, odds ratios and risk difference) and correlations (*r* value). The current study acquired binary data consisting of 2×2 tables containing the recidivism outcomes of the treatment group and comparison groups. Different measures can be used to describe the size of effect for such data, which include odds ratio (OR), risk ratio (RR) and risk difference (RD). The effect size measure selected for the current study is OR because it is widely recommended for dichotomous data given its stable estimates (Borenstein et al., 2021; Cooper

et al., 2009; Fleiss & Berlin, 2009; Gutierrez et al., 2016; Lipsey & Wilson, 2001) and because it has been recommended by previous meta-analyses in this field (Hanson et al., 2002, 2009; Koehler, Lösel, et al., 2013; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015).

4.3.3.2 Odds Ratio Calculation

The OR computations were carried out on the natural logarithm scale of the OR (thenceforth ‘logged OR’). Therefore, the logged OR was computed, as well as the standard error of the logged OR, with these numbers used to perform all steps in the meta-analysis calculations (Borenstein et al., 2009). Only after the calculations are computed were the results converted back into the original metric for reporting purposes and ease of interpretation (Hanson et al., 2002).

The formulation for the OR is:

$$OddRatio = \frac{TG\ Success}{TG\ Failure} \times \frac{CG\ Failure}{CG\ Success}$$

The logged OR is then:

$$LogOddsRatio = \ln(OddsRatio)$$

With approximate variance:

$$V_{LogOddsRatio} = \frac{1}{A} + \frac{1}{B} + \frac{1}{C} + \frac{1}{D}$$

And approximate standard error:

$$SE_{LogOddsRatio} = \sqrt{V_{LogOddsRatio}}.$$

It is important to note, at this point, that variance is not computed for the OR. Rather, the logged OR and its variance were used in the analysis to yield a summary effect and confidence limits, in log units. Each value is then converted back to the OR using:

$$OddsRatio = \exp(LogOddsRatio)$$

$$LLOddsRatio = \exp(LL_{LogOddsRatio})$$

And,

$$UL_{OddsRatio} = \exp(UL_{LogOddsRatio})$$

Where the *LL* and *UL* represent the lower and upper limits, respectively.

An OR of 1.00 indicates the ratio of recidivism for the treatment group (or group of interest) is equal to the ratio of recidivism for comparison group. Alternatively, an OR of less than 1.00 indicates that the odds of recidivism for the treatment group are small relative to the odds of recidivism for the comparison group. Given that the ORs are not normally distributed (one side of the ratio is bound between 0.00 and 1.00, while the other side is 1.00 is unbounded), they were converted to log odds ratios before calculated mean effect sizes. This ensures that opposing effects accurately affect the overall meta-analytic average.

4.3.3.3 Fixed v. Random-Effects Models

The fixed-effect and random-effects models represent two conceptually different approaches to the analytical framework. Both options are discussed with justification for the preferred modelled approach.

4.3.3.3.1 Fixed-Effect Model

Meta-analyses utilising studies drawn from a common population implement the fixed-effect model. This assumes, simplistically, that all factors influencing the effect size are the same in all study populations and that, therefore, the effect size is the same in all the study populations. Thus, it is assumed that an observed effect size differentiates between studies according to the random error inherent in each study (Borenstein et al., 2021). Such an approach would be implemented if there is reason to believe all studies are functionally identical and the goal is to compute the common effect size, which would then be generalised to other examples of the same population.

4.3.3.3.2 Random-Effects Model

In contrast to the fixed-effect model, the random-effects model assumes that the studies were drawn from populations that differ from each other in ways that could affect treatment outcomes. It follows that the effect size will vary between studies for two reasons: (i) the random error within studies, as in the fixed-effect model, and (ii) the true variation in effect size between one study to the next (Borenstein et al., 2021). Such an approach is used when studies are collated from a series of studies undertaken by different people and that, as a result, lack functional equivalence.

The present study, therefore, used the random-effects model because the populations differed in ways that could affect the treatment effect. For example, participants' ages, gender and ethnicities differ, in conjunction with types and intensities of treatment. It is important to use the random-effects model for this analysis because the goal is to generalise outcomes to a range of populations. If populations were identical, it would be impossible to extrapolate from one population to others and the utility of the analysis would be limited (Borenstein et al., 2021).

4.3.3.4 *Standard Error*

The estimate of precision when conducting an odds ratio is expressed as a standard error, which is the statistic providing information regarding the replicability of the effect in the study population. That is, the estimate of how similar the size of the observed effect would be for different study samples drawn from the same inference population. The smaller the standard error, the more precise the effect size. It is not uncommon for studies containing a smaller sample size to have a larger standard error. That is, studies that derive their findings from smaller numbers of participants have less certainty that the effect size estimated is approximate to those of the inference population. The standard error for this study was calculated using the following formula:

$$SE_{LogOddsRatio} = \sqrt{V_{LogOddsRatio}}.$$

4.3.3.5 Confidence Intervals

Standard error can also be used to create CIs around the effect size. CIs provide an upper and lower boundary to the range of possible results that a study estimates, with the point estimate effect size falling between these two values. Like standard error, the CI also serves to provide an indication of how precise the effect size is. A narrow CI suggests that the estimate of the effect is more precise than an effect size with a wide CI. Small studies, often containing only a small proportion of the inference population, tend to have wide CIs. The CIs of larger studies tend to be narrower, including a smaller range of possible values.

The confidence interval is more often referred to as the ‘95% confidence interval’. This means that ‘if a study was carried out 100 times with a new confidence interval calculated each time, the confidence interval would contain the true effect 95 times out of 100’ (Gough et al., 2017, p. 214). Using information from both the point estimate effect size and the confidence interval is necessary to interpret the results of a study or a synthesis of multiple studies. This entails understanding how precise the (summary) effect size is and considering whether there are situations in which an intervention might cause more harm than good.

Confidence intervals were calculated using the following formula:

$$\overline{ES}_{lower} = \overline{ES} - se_{\overline{ES}} 1.96$$

$$\overline{ES}_{upper} = \overline{ES} + se_{\overline{ES}} 1.96$$

4.3.3.6 Testing of Homogeneity and Heterogeneity

The systematic review process brings multiple studies together that can be used in the meta-analysis. Because these studies are normally diverse, both clinically and methodologically, it is expected that there will be a level of heterogeneity within their results (Higgins et al., 2003). This heterogeneity may result from varying follow-up periods, methodological approaches, inclusion criteria of participants (mandated v. voluntary, high risk v. low risk), author affiliation and length of treatment. Therefore, once the individual studies have been combined into a summary effect size, it is important to investigate whether the study-level effect sizes are statistically similar to each other. If they are not, then there is statistical heterogeneity within the analysis.

A test of heterogeneity examines the null hypothesis that all studies are evaluating the same effect. However, although it is important to acknowledge that heterogeneity within meta-analyses should be investigated and identified, these investigations are not straightforward (Hardy & Thompson, 1998; Thompson, 1994). There may be competing explanations for heterogeneity or no obvious explanations (Hardy & Thompson, 1998). Because each test offers a unique perspective, multiple tests of homogeneity and heterogeneity were used in the current analysis.

4.3.3.6.1 Cochran's Q

The *Q* statistic is used to test for homogeneity and, therefore, inadvertently determines the extent to which the effect sizes vary across independent studies. *Q* is computed by summing the squared deviations of each study's estimate from the overall meta-analytic estimate, weighting each study's contribution in the same manner as in the meta-analysis (Cochran, 1954). The value of *Q* is used to check if there is excess variation in the data, meaning more variation than can be expected from sampling error alone. If this is the case, then it is assumed that the rest of the variation is because of between-study heterogeneity.

Homogeneity is rejected when Q exceeds the critical value ($\alpha = .01$) for a chi-square with $k - 1$ degrees of freedom, where k is the number of effect sizes (Gough et al., 2017; Higgins & Thompson, 2002). Q was calculated using the following formula:

$$Q = \sum w_i ES_i^2 - \frac{(\sum w_i ES_i)^2}{\sum w_i}$$

Cochrane's Q has a limited ability to detect whether the true heterogeneity among studies is significant (Higgins et al., 2003). It is common for meta-analyses to include a small number of studies and, consequently, the power of the test in these circumstances is low (Higgins et al., 2003). In some instances, although the lower and upper ends of Q may vary exponentially, if not accompanied with a significant p , heterogeneity could still be discredited in support for homogeneity among studies in the meta-analysis. Because the Q is limited in its ability to detect true heterogeneity, a non-significant result cannot be taken as evidence of homogeneity (Hardy & Thompson, 1998; Higgins et al., 2003). Using a cut-off of 10% for significance ameliorates this problem but increases the risk of drawing a false positive conclusion (type I error; Hardy & Thompson, 1998; Higgins et al., 2003).

Other concerns around the sole use of Q to determine heterogeneity include the assumption that Q , following a chi-square distribution with $k - 1$ degrees of freedom, does not reflect Q 's actual behaviour in a meta-analysis (Hoaglin, 2016). A more practical concern is that Q increases both when k increases and when the precision (i.e., the sample size of a study) increases. Therefore, Q and whether it is significant highly depend on the size of a meta-analysis and thus its statistical power (Harrer et al., 2021). Consequently, meta-analysts may decide whether to conduct a fixed-effect or random-effects model according to the significance of the Q (Harrer et al., 2021). This has been termed a 'two stage analysis' in which the strategic approach to the meta-analysis is determined according to the results of a

statistical test (Higgins et al., 2003). Such an approach has been found to be problematic (P. R. Freeman, 1989; Steyerberg et al., 1999). As stated by Higgins and colleagues (2003), there is little point in simply testing for heterogeneity when what matters is the extent to which it affects the conclusions of the meta-analysis. Therefore, additional approaches have been developed and should be considered with the Q when testing for heterogeneity—specifically, Higgin and Thompsons I^2 statistic and the H^2 statistic.

4.3.3.6.2 Higgin and Thompsons I^2

The I^2 statistic is another way to quantify between-study heterogeneity and is directly derived from Q . Unlike the Q , the I^2 is not sensitive to changes in the number of studies in the analysis (Harrer et al., 2021). I^2 also draws on the assumption that Q follows the chi-square distribution with $K - 1$ degrees of freedom under the null hypothesis of no heterogeneity. In addition to this, I^2 quantifies, in the percentage format, how much the observed value of Q exceeds the expected Q -value when there is no heterogeneity (i.e., $K - 1$). The formula for I^2 is:

$$i^2 = \left[\frac{Q - df}{Q} \right] \times 100$$

The value of I^2 cannot be lower than 0%. Therefore, if the Q is smaller than $K - 1$, then 0 is used instead of a negative value. The heterogeneity of I^2 can be interpreted as:

$I^2 = 25\%$: low heterogeneity

$I^2 = 50\%$: moderate heterogeneity

$I^2 = 75\%$: substantial heterogeneity.

4.3.3.6.3 H^2 Statistic

The H^2 statistic is similar to I^2 and also derived from Q . It is used to describe the ratio of the observed variation—measured by Q —and the expected variance given sampling error.

Unlike I^2 , there is no requirement to artificially correct the value when Q is smaller than $K - 1$.

1. When there is no between-study heterogeneity, H^2 equals or is smaller than one. A value greater than one indicates the presence of between-study heterogeneity. The computation for H^2 is:

$$H^2 = \frac{Q}{df}$$

4.3.3.6.4 Tau-Squared

An associated challenge with random-effects models is considering the standard error. To take this standard error into account, the variance of the distribution of true effect sizes must be estimated (Harrer et al., 2021). In random-effects analysis, this variance is commonly known as τ^2 . τ^2 was calculated using the following formula:

$$\tau^2 = \frac{Q - df_Q}{\sum w_1 - \frac{\sum w_1^2}{\sum w_1}}$$

4.4 Results

The following section provides the results of the meta-analysis. Several analyses were undertaken to achieve a sound meta-analysis of the literature. These included looking at the effectiveness of treatment for:

1. Total population using sexual recidivism as the outcome measure.
2. Total population using violent recidivism as the outcome measure.
3. Differences between the Indigenous treatment group and the non-Indigenous treatment group.
4. Differences between the Indigenous treatment group and the Indigenous comparison group (those who did not receive or complete the treatment program).

5. Differences between the Indigenous treatment group and the non-Indigenous comparison group (those who did not receive or complete the treatment program).

In the initial stages, treatment effectiveness was calculated for all program participants irrespective of Indigenous or First Nations status. Despite there being seven programs in this analysis, only six provided the results for the total treatment group and total comparison group. Therefore, the initial review of treatment program effectiveness is developed from the available data from six treatment programs.

4.4.1 Treatment Effectiveness Total Participants

4.4.1.1 Sexual Recidivism

The analysis of treatment program effectiveness irrespective of Indigenous or First Nations status produced a non-significant ($p < .13$) albeit positive effect supporting treatment (OR = 1.98; 95% CI = 0.82, 4.79; $Z = 1.523$; $k = 6$; $n = 3,203$) along the odds ratio (see Table 4.1). A test of homogeneity was conducted using the Q , which reported a significant amount of heterogeneity ($Q = 53.562$; $df = 5$; $p \leq .001$). Heterogeneity was, therefore, assessed using the I^2 , H^2 and τ^2 . Again, the high level of heterogeneity was supported by these tests ($I^2 = 87.2$; $H^2 = 7.793$; $\tau^2 = 1.005$). The forest plot (see Figure 4.1) also revealed dispersion reflecting high heterogeneity.

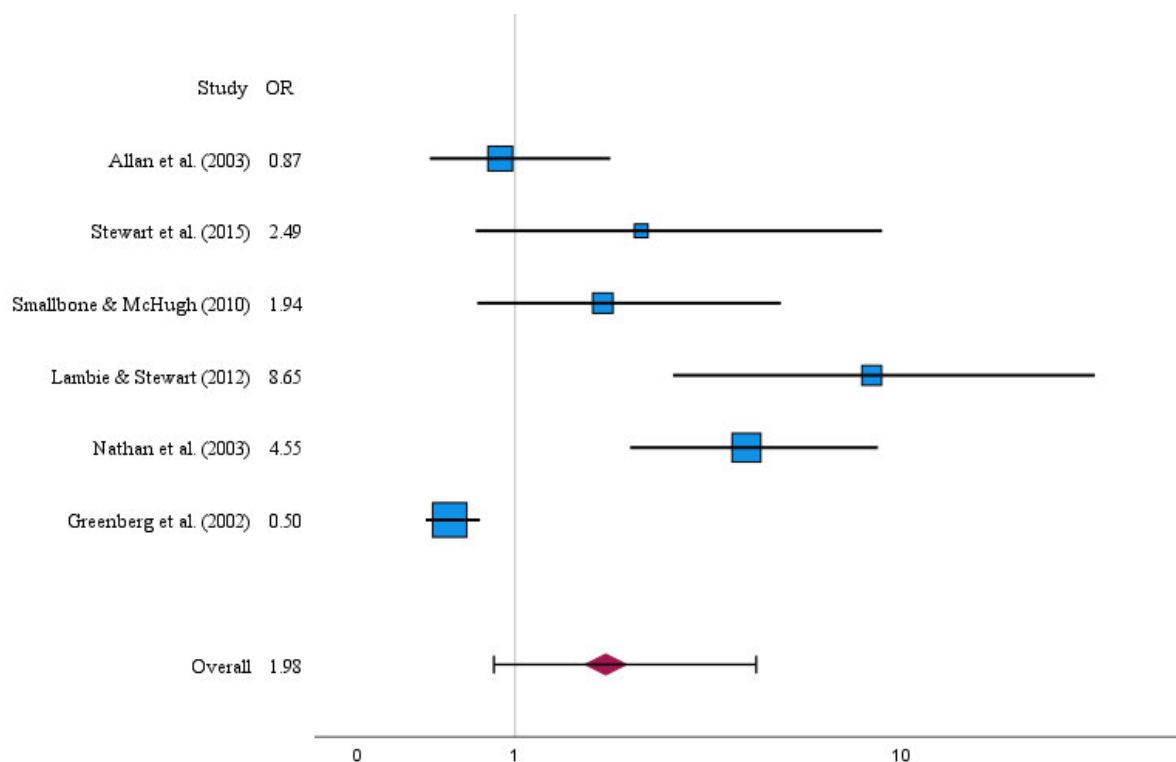
Table 4.1

Total Sample Sexual Recidivism

Study	OR	95% CI	p	TG (n)	CG (n)
Allan et al. (2003)	0.87	0.37, 2.05	.75	73	237
Stewart et al. (2015)	2.49	0.68, 9.10	.17	61	114
Smallbone & McHugh (2010)	1.94	0.69, 5.46	.21	158	251
Lambie & Stewart (2012)	8.65	3.01, 24.81	.001	175	214
Nathan et al. (2003)	4.55	2.32, 8.91	.001	201	283
Greenberg et al. (2002)	0.50	0.35, 0.71	.001	630	806
Overall	1.98	0.82, 4.79	.13	1298	1905

Figure 4.1

Forest Plot Sexual Recidivism Total Sample

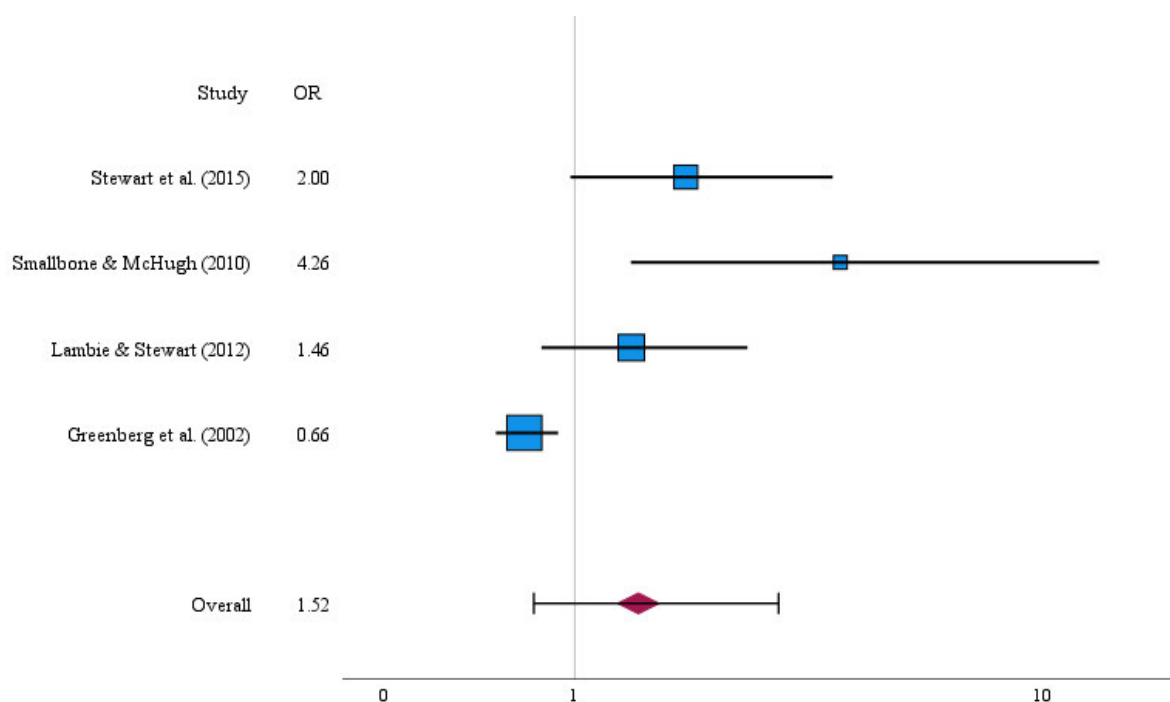


4.4.1.2 Violent Recidivism

An analysis of violent recidivism post-treatment was conducted to investigate the effects treatment had on this behaviour type. Irrespective of Indigenous or First Nations status, there was a small positive result concerning treatment effectiveness to reduce violent recidivism (OR = 1.52; 95% CI = 0.72, 3.20; $Z = 1.105$; $p \leq .27$; $n = 2,409$). Heterogeneity among the studies remained high ($Q = 19.272$; $df = 3$; $p < .001$) although it had slightly reduced in comparison with sexual recidivism. Heterogeneity remained high for all other analyses ($I^2 = 82.8$; $H^2 = 5.831$; $\tau^2 = .452$). Table 4.2 provides an overview of individual effect sizes and Figure 4.2 demonstrates the disparity between studies.

Table 4.2*Total Sample Violent Recidivism*

Study	OR	95% CI	<i>p</i>	TG (<i>n</i>)	CG (<i>n</i>)
Stewart et al. (2015)	2.00	0.97, 4.11	0.06	61	114
Smallbone & McHugh (2010)	4.26	1.45, 12.48	0.01	158	251
Lambie & Stewart (2012)	1.46	0.77, 2.75	0.25	175	214
Greenberg et al. (2002)	0.66	0.50, 0.88	0.001	630	806
Overall	1.52	0.72, 3.20	0.27	1,024	1,385

Figure 4.2*Forest Plot Violent Recidivism Total Sample*

4.4.2 Treatment Effectiveness Indigenous and Non-Indigenous Participants: Sexual Recidivism

The effectiveness of treatment for Indigenous and non-Indigenous individuals who completed treatment was reviewed to ascertain whether treatment within these programs was more effective for the Indigenous or non-Indigenous cohorts or consistent between the groups. There was a negative non-significant effect (OR = 0.74; 95% CI = 0.33, 1.67; *Z* =

$-7.26; p \leq .47; k = 4; n = 667$), which indicated that treatment was more effective for the non-Indigenous participants (see Table 4.3 for an overview of independent studies). An investigation of the Q indicated a non-significant result indicating there is homogeneity among the included studies, despite the small sample size ($Q = 2.687; df = 3; p \leq .44$). Homogeneity was further confirmed through the small effects produced from tests of heterogeneity ($I^2 = 11.2; H^2 = 1.126; \tau^2 = .079$) and was confirmed by close alignment in the forest plot (see Figure 4.3). Although the overall effect supported treatment in favour of those in the non-Indigenous cohort, a review of independent studies revealed three of the studies were close to 1.00, indicating marginal difference between the two cohorts.

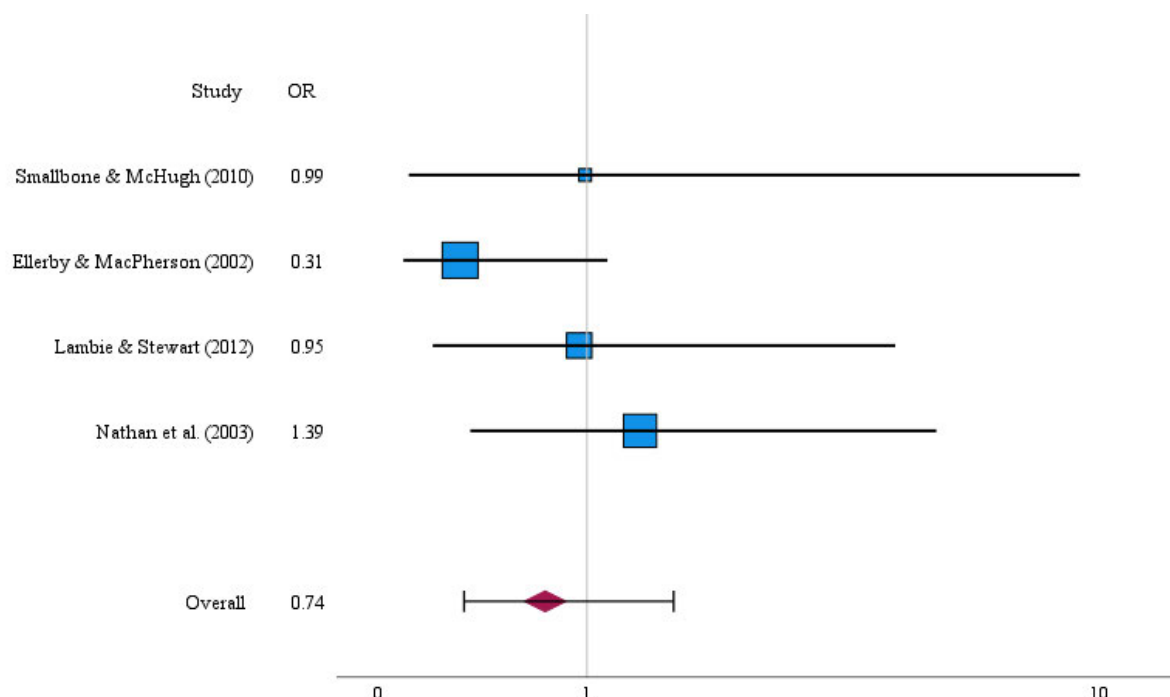
Table 4.3

Indigenous and Non-Indigenous Treatment Group Comparison

Study	OR	95% CI	p	TG (n)	CG (n)
Smallbone & McHugh (2010)	0.99	0.10, 9.33	0.99	21	85
Ellerby & MacPherson (2002)	0.31	0.08, 1.14	0.08	68	137
Lambie & Stewart (2012)	0.95	0.20, 4.58	0.95	28	147
Nathan et al. (2003)	1.39	0.36, 5.40	0.64	68	133
Overall	0.74	0.33, 1.67	0.47	185	482

Figure 4.3

Forest Plot Indigenous and Non-Indigenous Treatment Group Comparison

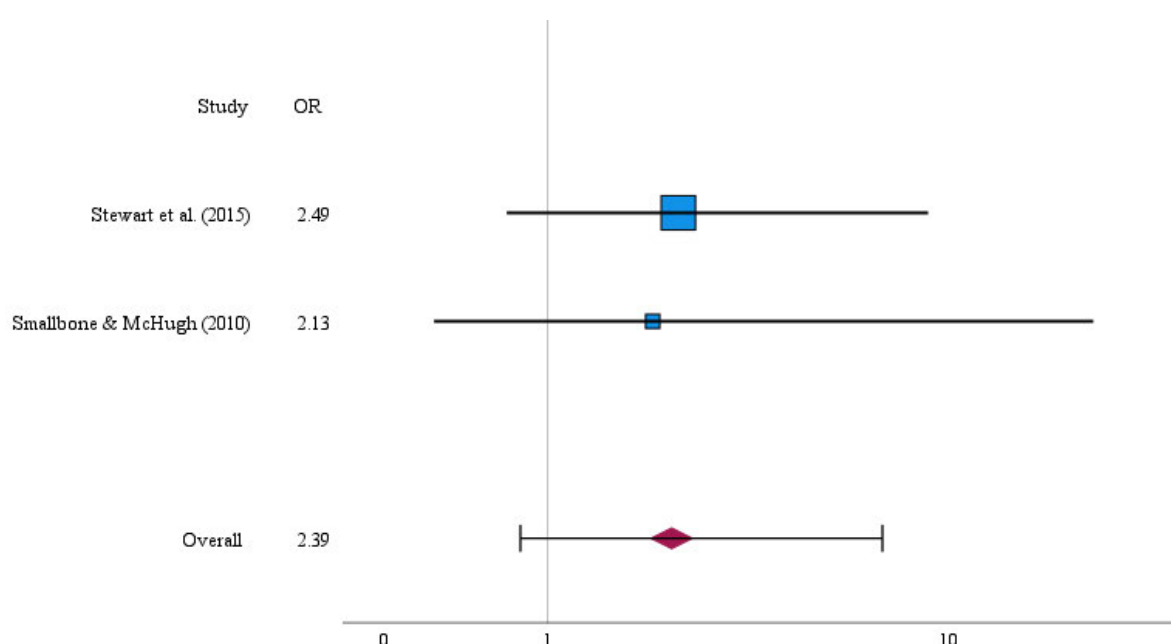


4.4.3 Treatment Effectiveness Indigenous Participants: Sexual Recidivism

An analysis was performed to examine the effectiveness of treatment for Indigenous people who had completed treatment in comparison with a cohort of Indigenous people who did not complete the treatment. Treatment had a large positive effect for Indigenous people who completed the program (OR = 2.39; 95% CI = 0.78, 7.31; $Z = 1.528$; $p \leq .13$; $k = 2$; $n = 248$). Despite only using a small sample, the studies were extremely aligned as evidenced by a non-significant test of homogeneity ($Q = 0.140$; $df = 1$; $p \leq .905$) and low scores in all heterogeneity tests ($I^2 = .0$; $H^2 = 1.000$; $\tau^2 = .000$; see Figure 4.4). As outlined in Table 4.4 and Figure 4.4, the Tupiq Program had the largest effect on Indigenous participants who completed treatment (Stewart et al., 2015).

Table 4.4*Indigenous Treatment and Indigenous Comparison Group*

Study	OR	95% CI	<i>p</i>	TG (<i>n</i>)	CG (<i>n</i>)
Stewart et al. (2015)	2.49	0.68, 9.10	0.17	61	114
Smallbone & McHugh (2010)	2.13	0.23, 19.39	0.50	21	52
Overall	2.39	0.78, 7.31	0.13	82	166

Figure 4.4*Forest Plot Indigenous Treatment and Indigenous Comparison Group***4.4.4 Treatment Effectiveness Indigenous Treatment Group v. Non-Indigenous****Comparison Group: Sexual Recidivism**

An analysis was conducted to determine the effectiveness of treatment for Indigenous participants who completed treatment in comparison with the cohort of non-Indigenous people who did not complete treatment within the respective programs. This was to ensure that the results are reported in a manner consistent with study 1 (a systematic narrative review) but also to explore all possible avenues for analysis. In doing so, the analysis can investigate whether treatment—although not always culturally appropriate (a finding in study

1)—still has a stronger effect than a sample of non-Indigenous participants who did not engage in any treatment. If treatment is found to be less effective than the comparison group, research would need to examine the implication of this further and question current treatment methods.

Although the analysis favoured the Indigenous cohort who completed treatment, there was minimal difference between the Indigenous treatment group and the non-Indigenous comparison group (OR = 1.14; 95% CI = 0.44, 2.94; $Z = .279$; $p \leq .78$; $k = 2$; $n = 878$). In addition to this, the two studies were homogeneous ($Q = 0.007$; $df = 1$; $p \leq .935$) with virtually no heterogeneity detected between them ($I^2 = .0$; $H^2 = 1.000$; $\tau^2 = .000$), which may be a result of the small sample size limiting the ability to detect this. Nonetheless, limited heterogeneity and the alignment of the two studies is evidenced by the forest plot (see Table 4.5 and Figure 4.5).

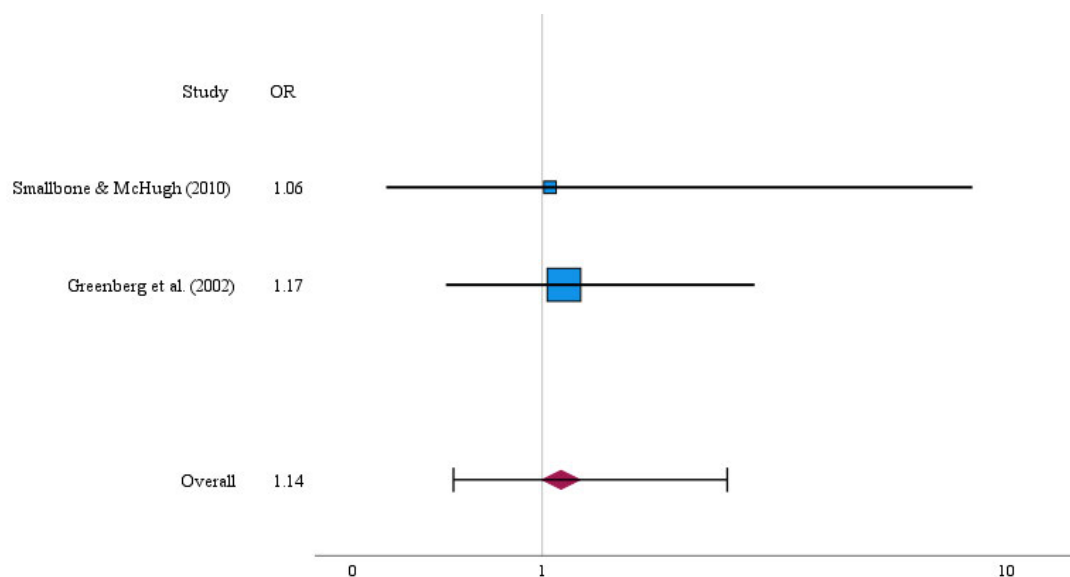
Table 4.5

Indigenous Treatment and Non-Indigenous Comparison Group

Study	OR	95% CI	p	TG (n)	CG (n)
Smallbone & McHugh (2010)	1.06	0.13, 8.70	0.96	21	199
Greenberg et al. (2002)	1.17	0.40, 3.36	0.78	50	608
Overall	1.14	0.44, 2.94	0.78	71	807

Figure 4.5

Forest Plot Indigenous Treatment and Non-Indigenous Comparison Group



In this section of the analysis, four of the five overall effect sizes appear to be positive, albeit small and non-significant. As provided in Table 4.6, the overall mean effect sizes ranged from 0.74 to 2.39. The most effective result was produced when comparing Indigenous treatment completers with the Indigenous comparison group. Despite the positive effect, the result was non-significant—a potential consequence of the limited number of studies in the analysis. There was homogeneity among the tests comparing the Indigenous treatment group with other groups, as evidenced by a non-significant Q . This may also be a result of the small number of studies comprising these analyses. However, there was significant heterogeneity when analysing the total samples (Indigenous and non-Indigenous) for the outcomes of sexual and violent recidivism. Therefore, variables that may have influenced the treatment effect were investigated in a moderator analysis.

Table 4.6*Total Mean Effects of Treatment for Different Areas of Recidivism and Group Type*

Outcome	OR	95% CI	Q
Sexual Recidivism			
Total sample	1.98	0.82, 4.79	53.562***
Indigenous TG v. Non-Indigenous TG	0.74	0.33, 1.67	2.687
Indigenous TG v. Indigenous CG	2.39	0.78, 7.31	0.140
Indigenous TG v. Non-Indigenous CG	1.14	0.44, 2.94	0.007
Violent Recidivism			
Total sample	1.52	0.72, 3.20	19.272***

Note. *** = $p < .001$.

4.4.5 Moderator Analysis

A moderator analysis was performed to review variables of interest that may have influenced the treatment effect outcomes for sexual recidivism among all Indigenous and non-Indigenous participants. The moderator analysis also examined the possible sources of heterogeneity and investigated whether variables of interest have affected the outcomes of the meta-analysis (Viechtbauer, 2007). The moderator analysis was conducted on variables of interest, but also on variables where there was sufficient information for the analysis to be conducted (e.g., variables surrounding study, treatment and methodology variables). Additionally, there had to be sufficient variation in the data for the moderator analysis to be conducted.

The moderator analysis was completed on SPSS software. Consistent with calculating the effect sizes, all calculations were conducted using a random-effects model along the logarithm of the odds ratio and converted back into the odds ratio for reporting purposes (Hanson et al., 2002). This ensures findings are reported in a consistent manner with previous meta-analyses aiming to understand the effectiveness of treatment for people who have sexually offended field (Hanson et al., 2002, 2009; Koehler, Lösel, et al., 2013; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015). The analysis

for reporting purposes was categorised into three themes: study variables, treatment variables and methodological variables. The following formulas were used for computing the moderate analysis.

The formula for the overall Q is computed as:

$$Q = \sum w_i ES_i^2 - \frac{(\sum w_i ES_i)^2}{w_i}$$

To calculate the Q_{between} , the Q_{within} must first be calculated within each group and then summed across groups using the following formula:

$$Q_{\text{Within}} = \sum w_{ij} (ES_{ij} - \overline{ES}_j)^2$$

The Q_{between} can then be computed by subtracting the Q_{within} from the Q_{total} :

$$Q_{\text{Between}} = Q_{\text{Total}} - Q_{\text{Within}}$$

4.4.6 Study Variables

A comparison was made between the publication dates of studies. It was hypothesised that more recently published studies would draw on contemporary evidence and be more effective in practice than older studies that may draw on what would be considered outdated evidence. To perform the analysis, variables were collapsed into two groups depending on the year studies were published: before 2010 and after 2010 (the midway point between the first and last study). It must be noted, however, that studies in the ‘before 2010’ group were published either in 2002 or 2003. Nonetheless, as predicted, studies published after 2010 produced a large and significant effect ($OR = 3.53$; $95\% CI = 1.37, 9.13$; $p < .01$; $k = 3$) and were noticeably more effective than those published before 2010 ($OR = 1.24$; $95\% CI = 0.33, 4.63$; $p \leq .75$; $k = 3$). Again, a subgroup analysis indicated high levels of between-groups

homogeneity ($Q_{\text{between}} = 1.600$; $df = 1$; $p \leq .206$). As shown in Table 4.7, however, there was a significant amount of heterogeneity between studies published before 2010 ($Q_{\text{within}} = 32.419$; $df = 2$; $p \leq .001$) and those published after 2010 ($Q_{\text{within}} = 4.332$; $df = 2$; $p \leq .001$).

Table 4.7

Moderator Analysis of Study Variables

Variables	<i>k</i>	<i>n</i>	OR	Q_{between}	Q_{within}	CI _{95%}	
						Lower	Upper
Publication Year				1.60			
Before 2010	3	2,230	1.24		32.419***	0.33	4.63
After 2010	3	973	3.53*		4.332	1.37	9.13
Publication Location				0.26			
Published	3	774	2.59		11.038**	0.67	10.03
Not published	3	2,329	1.59		34.910***	0.42	5.97
Publication Type				20.80***			
Journal article	3	874	2.59		11.038**	0.67	10.03
Report	2	893	3.27		1.828	1.45	7.36
Book	1	1,436	0.50		- ^a	0.35	0.71

Note. *k* = Number of studies, *n* = Number of participants, OR = Odds Ratio, CI 95% =

95% confidence intervals. ^a Analysis could not be performed because of the sample size containing *k* = 1. ** $p < .01$, *** $p < .001$.

Both published and grey literature were included in the meta-analysis to ensure the file drawer effect was limited (Rosenthal, 1979). Therefore, the location of each study was also included in the analysis to determine whether published studies produced a stronger effect than studies sourced from grey literature. In the subgroup analysis, it was evident that published studies produced a stronger, albeit non-significant, effect (OR = 2.59; 95% CI = 0.67, 10.03; $p \leq .17$; $k = 3$) than studies retrieved from grey literature (OR = 1.59; 95% CI = 0.42, 5.97; $p \leq .49$; $k = 3$). A between-groups test of homogeneity produced a low and non-significant result suggesting studies aligned well ($Q_{\text{between}} = 0.26$; $df = 1$; $p = < .061$). However, further analysis suggested that there was a large amount of heterogeneity within the grey literature cohort ($Q_{\text{within}} = 34.910$; $df = 2$; $p \leq .001$) in comparison with the published

literature ($Q_{\text{within}} = 11.038$; $df = 2$; $p \leq .004$). As published literature produced a larger effect size, it was decided to investigate the type of publication further to determine whether there was an impact on the effect size production.

The type of publication was categorised as a peer-reviewed journal article, a report or a book. The book produced the least favourable effect on treatment outcomes, suggesting treatment did not have a positive effect ($OR = 0.50$; 95% $CI = 0.35, 0.71$; $k = 1$). Reports had a more favourable outcome ($OR = 3.27$; 95% $CI = 1.45, 7.36$; $p \leq .001$; $k = 2$) than peer-review journal articles ($OR = 2.59$; 95% $CI = 0.67, 10.03$; $p \leq .017$; $k = 3$). One study produced an outcome that did not favour treatment. If this outlier was removed from the analysis, the outcome effect was raised by 2.33 to produce an effect size of 4.92 (95% $CI = 1.46, 16.59$; $p \leq .01$). Nonetheless, there was significant variability between the studies in the between-groups test of homogeneity ($Q_{\text{between}} = 20.801$; $df = 2$; $p \leq .001$). A significant amount of this variability was located within the peer-reviewed journal articles ($Q_{\text{within}} = 11.038$; $df = 2$; $p \leq .004$). Although there was a low amount of homogeneity in the report group ($Q_{\text{within}} = 1.828$; $df = 1$; $p \leq .176$), further tests of heterogeneity revealed this to be moderate ($I^2 = .45.3$; $H^2 = 1.828$; $\tau^2 = .164$).

4.4.7 Treatment Variables

The treatment options differed in relation to the effect size, which ranged from 0.50 to 8.65. Two groups were formed for analysis according to whether treatment included culturally relevant methods of intervention. In total for all participants, a blending of cognitive behaviour therapy and culturally relevant treatment had a significantly stronger effect on reducing recidivism ($OR = 3.20$; 95% $CI = 1.76, 5.84$; $p \leq .001$) than CBT alone ($OR = 1.99$; 95% $CI = 0.12, 32.46$; $p \leq .63$). A test of between-groups homogeneity indicated the groups were aligned and there was limited heterogeneity ($Q_{\text{between}} = 5.99$; $df = 2$); however, this outcome remained statistically significant at $p < .05$, indicating some heterogeneity within the

analysis. To locate this heterogeneity, the Q was investigated within-groups. Although there was a large significant amount of heterogeneity in the cognitive behavioural group ($Q_{\text{within}} = 25.23$; $df = 1$; $p \leq .001$; $k = 2$), the blended group remained aligned ($Q_{\text{within}} = 2.06$; $df = 2$; $p \leq .356$; $k = 3$). This was further supported within the cognitive behavioural group by $I^2 = 96.0$; $H^2 = 25.230$; $\tau^2 = 3.906$ and the blended approach $I^2 = 19.1$; $H^2 = 1.237$; $\tau^2 = .058$, respectively. In total, inspection of the individual studies found all blended treatment approaches to be effective, with effect sizes ranging from 1.94 to 4.55. There was a larger discrepancy between the two studies exclusively using cognitive behavioural approaches (OR = 0.50 and 8.65).

Next, an analysis investigated differences between studies in relation to treatment setting. The analysis indicated there was a stronger and significant effect produced from studies where treatment was conducted within a prison environment (OR = 3.20; 95% CI = 1.76, 5.84; $p \leq .001$; $k = 3$) compared with treatment provided within the community (OR = 2.69; 95% CI = 0.28, 25.41; $p \leq .39$; $k = 2$). However, it must be acknowledged that the results for community treatment were still high. Only one study indicated treatment in prison and the community was used in the analysis, which had no effect (OR = 0.50; 95% CI; 0.35, 0.71). A test of homogeneity produced a statistically significant result ($Q_{\text{between}} = 28.31$; $df = 2$; $p \leq .001$), indicating a large amount of heterogeneity ($I^2 = 87.2$; $H^2 = 7.793$; $\tau^2 = 1.005$). A test of within-groups homogeneity produced a significant outcome for treatment performed in the community ($Q_{\text{within}} = 11.001$; $df = 1$; $p \leq .001$) and notably high levels of heterogeneity ($I^2 = 90.9$; $H^2 = 11.001$; $\tau^2 = 2.389$). The treatment programs conducted in a prison environment were homogenous as indicated by a non-significant Q_{within} (2.064) and minimum productions within the tests of heterogeneity ($I^2 = 19.1$; $H^2 = 1.237$; $\tau^2 = .058$). The largest effect size was produced from a study [8] within the community (Lambie & Stewart, 2012; OR = 8.65; $p \leq .001$).

The duration of treatment was then analysed to determine whether length of treatment correlated with a larger effect size. Data were kept in their original form to understand the between-groups differences of treatment programs. Interestingly, the effect size and statistical significance increased as the duration of treatment increased: 11–20 weeks (OR = 0.98; 95% CI = 0.21, 4.65, $p \leq .0.98$; $k = 2$), 21–30 weeks (OR = 1.94; 95% CI = 0.69, 5.46; $p \leq .021$; $k = 1$), 61–120 weeks (OR = 4.55; 95% CI = 2.32, 8.91; $p \leq .001$; $k = 1$) and 61–120 weeks (OR = 8.65; 95% CI = 3.01, 24.81; $p \leq .001$; $k = 1$). A between-groups test of homogeneity suggested there was a low, albeit significant, level of heterogeneity within the analysis ($Q_{\text{between}} = 15.76$; $df = 4$; $p \leq .003$). Because of the small number of studies across a diverse area of interest, a test of heterogeneity within the groups could not be performed. The studies were therefore collapsed into two categories according to distribution of data: 1–30 weeks and 31–120 weeks.

As anticipated, the larger and significant effect size remained with those studies in the longer duration of treatment (OR = 5.49; 95% CI = 3.10, 9.72; $p \leq .001$; $k = 2$). This contrasts with the shorter duration group, which produced a marginal non-significant effect (OR = 1.17; 95% CI = 0.40, 3.41; $p < .077$; $k = 3$). One study was excluded from the analysis because the authors did not report the duration of treatment. The between-groups test of homogeneity remained statistically large ($Q_{\text{between}} = 14.99$; $df = 2$; $p \leq .001$) and was a result of studies in the short duration group ($Q_{\text{within}} = 10.530$; $df = 2$; $p \leq .005$). Test of heterogeneity confirmed large amounts of variance between the shorter duration studies ($I^2 = 77.6$; $H^2 = 4.474$; $\tau^2 = .674$), whereas the longer duration studies had noticeably low levels of heterogeneity ($I^2 = 1.3$; $H^2 = 1.013$; $\tau^2 = .003$).

Finally, it was imperative to understand the effectiveness of treatment in relation to the jurisdiction in which the program was delivered. Therefore, a subgroup analysis was performed on individual countries to investigate whether different locations influenced the

effect outcome. There was a significant amount of between-groups heterogeneity in the analysis ($Q_{\text{between}} = 14.826$; $df = 2$; $p \leq .001$). Programs implemented in New Zealand had a large and statistically significant effect ($OR = 5.49$; 95% CI = 3.10, 9.72; $p \leq .001$; $k = 2$), followed by Canada ($OR = 2.49$; 95% CI = 0.68, 9.10; $p \leq .17$; $k = 1$). Treatment provided in Australia had no effect on recidivism outcomes ($OR = 0.84$; 95% CI = 0.39, 1.81; $p \leq .66$; $k = 3$). The limited effect from treatment provided in Australia was investigated further. Removal of two studies that had no effect boosted the effect size to 1.94 (95% CI = 0.69, 5.46; $p \leq .21$). Removal of the Australian treatment studies ($k = 3$) from the analysis raised the effect by 2.85 to produce an odds ratio of 4.83 (95% CI 2.87, 8.12). This outcome was statistically significant at $p < .001$. In addition, the Australian treatment studies were responsible for a large amount of heterogeneity in the analysis ($I^2 = 69.9$; $H^2 = 3.322$; $\tau^2 = .315$). See Table 4.8 for an overview of the moderator analysis in relation to treatment variables.

Table 4.8

Moderator Analysis for Treatment Variables

Variables	<i>k</i>	<i>n</i>	OR	Q_{between}	Q_{within}	CI _{95%}	
						Lower	Upper
Treatment Type				5.99			
Cognitive Behavioural	2	1,825	1.99		25.230***	0.12	32.46
Blended ^b	3	1,068	3.20***		2.064	2.32	8.91
Unclear	1	310	0.87		- ^a	0.37	2.05
Treatment Setting				28.31***			
Prison	3	1,068	3.20***		2.064	1.76	5.84
Community	2	699	2.69		11.001***	0.28	25.41
Mixed	1	1,436	0.50		- ^a	0.35	0.71
Treatment Duration				14.99***			
1–30 Weeks	3	2,020	1.17		10.530***	0.35	0.71
31–120 Weeks	2	1,183	5.49***		1.013	3.10	9.72
Treatment Location				14.826***			
New Zealand	2	873	5.49***		1.013	3.10	9.72
Canada	1	175	2.49		- ^a	0.68	9.10
Australia	3	2,155	0.84		6.744*	0.39	1.81

Note. k = Number of studies, n = Number of participants, OR = Odds Ratio, CI 95% = 95% confidence intervals. ^a Analysis could not be performed because of the sample size containing $k = 1$; ^b CBT and Culturally Relevant Treatment. * $p < .05$, *** $p < .001$.

4.4.8 Methodological Characteristics

Studies using aggregated samples were then investigated in the subgroup analysis to determine whether studies using aggregated samples influenced the effect outcomes. To perform the analysis, because the number of aggregated samples varied, variables were collapsed into aggregated sample or non-aggregated sample. Those studies using an aggregated sample produced a larger effect size (OR = 2.37; 95% CI = 0.68, 8.23; $p < .18$; $k = 4$) than studies with a non-aggregated sample (OR = 1.13; 95% CI = 0.48, 3.56; $p < .60$; $k = 2$). However, both outcomes were non-significant. A test of between-group homogeneity indicated studies were extremely homogeneous ($Q_{\text{between}} = 0.53$; $df = 1$; $p \leq .47$). Despite this outcome, those studies utilising an aggregated sample were more heterogenous ($Q_{\text{within}} = 51.683$; $df = 3$; $p < .001$) than the non-aggregated samples ($Q_{\text{within}} = 1.752$; $df = 1$; $p < .186$).

The post-treatment risk-to-reoffend period was then analysed. Here, it was hypothesised that large effect sizes would be produced in studies where the risk-to-reoffend period was short—indicating less of a chance for participants to reoffend. Those studies falling within the 25 to 36 month timeframe, as hypothesised, produced a larger and significant effect (OR = 3.20; 95% CI = 1.76, 5.84; $p < .001$; $k = 3$) than those in the 37 to 60 months period (OR = 1.48; 95% CI = 0.28, 7.92; $p < 0.65$; $k = 3$). Although the test of between-subgroups homogeneity was low ($Q_{\text{between}} = 0.72$; $df = 1$; $p < .39$), there was a significant amount of heterogeneity in studies ranging between 37 and 60 months ($Q_{\text{within}} = 25.554$; $df = 2$; $p < .001$) compared with those between 25 and 36 months ($Q_{\text{within}} = 2.064$; $df = 2$; $p < .356$).

Sample size was also compared to see if a small or larger sample size affected the outcome of the analysis. Variables were collapsed into three categories according to distribution of data: (i) 100–400 participants, (ii) 401–500 participants and (iii) 1000+ participants. The subgroup analysis indicated that studies with between 401–500 participants had the largest effect size (OR = 3.27; 95% CI = 1.45, 7.36; $p < .001$; $k = 2$), compared with those with a smaller sample of 100–400 (OR = 2.59; 95% CI = 0.67, 10.03; $p < .17$; $k = 3$). The study with the largest sample size ($n = 1,436$) did not produce an effect favouring treatment (OR = 0.50; 95% CI = 0.35, 0.71). There was significant heterogeneity between the groups ($Q_{\text{between}} = 20.80$; $df = 2$; $p < .001$). The cause of this heterogeneity was from the studies within the 100–400 participants group ($Q_{\text{within}} = 11.038$; $df = 2$; $p < .004$), which was confirmed by further tests of heterogeneity ($I^2 = 79.8$; $H^2 = 4.940$; $\tau^2 = 1.134$). A test of homogeneity could not be conducted for the 1000+ sample because the subgroup contained a single record. See Table 4.9 for an overview of the moderator analysis in relation to methodological variables.

Table 4.9

Moderate Analysis of Methodological Variables

Variables	k	n	OR	Q_{between}	Q_{within}	CI _{95%}	
						Lower	Upper
Aggregated Samples				0.53			
Yes	4	2,718	2.37		51.682***	0.68	8.23
No	2	485	1.31		1.752	0.48	3.56
Recidivism Period				0.72			
25–36 months	3	1,068	3.20***		2.064	1.76	5.84
37–60 months	3	2,135	1.48		25.554***	0.28	7.92
Sample Size				20.801***			
100–400	3	874	2.59		11.038***	0.67	10.03
401–500	2	893	3.27***		1.828	1.45	7.36
1000+	1	1,436	0.50		– ^a	0.35	0.71

Note. k = Number of studies, n = Number of participants, OR = Odds Ratio, CI 95% = 95% confidence intervals. ^a Analysis could not be performed because of the sample size containing $k = 1$. * $p < .01$, *** = $p < .001$.

4.4.9 Publication Selection Bias

Publication selection bias is a concern in meta-analyses, a consequence of statistically significant or favourable results being more likely to be published in peer-reviewed journals (Ahmed et al., 2012; Marks-Anglin & Chen, 2020). This bias may occur because of studies not being published—either from not being submitted for publication or rejected from publication—or delivering non-significant results, small effect sizes or unfavourable outcomes. Therefore, a meta-analysis that draws solely on published studies will have a biased effect from distorting the scientific evidence (Marks-Anglin & Chen, 2020; Rothstein et al., 2005; Sutton & Higgins, 2008) and can lead to overly optimistic conclusions (Terrin et al., 2005).

4.4.9.1 Published and Unpublished Literature

One method to ensure a meta-analysis is not biased by significant results is to search for unpublished literature in the systematic development of the review (Kugley et al., 2017; Mahood et al., 2014; Paez, 2017; Rothstein & Hopewell, 2009). Unpublished literature broadens the scope of a review to include more relevant studies, given that most literature is unpublished or not disseminated through commercial media or peer-reviewed outlets (Paez, 2017; Pappas & Williams, 2011). Thus, the inclusion of unpublished literature provides a more complete review of all available evidence (Mahood et al., 2014). In the systematic development (see study 1), unpublished literature—also commonly referred to as ‘grey literature’—was sought for inclusion in the review. In the systematic review, eight studies (57.1%) were classified as published literature, with the remaining six studies (42.9%) classified as unpublished literature: reports ($k = 4$; 28.6%), conference papers ($k = 1$; 7.1%)

and books ($k = 1$; 7.1%). However, studies included in the meta-analysis were reduced because it is a requirement for these studies to contain a comparison group ($k = 7$). Consequently, three studies were classified as published articles (42.9%) and the remaining four were deemed unpublished studies (57.1%): reports ($k = 3$; 42.9%) and books ($k = 1$; 14.3%). Although visual inspection of the data indicated that a representative sample of both published and unpublished literature was included in the meta-analysis, a statistical appraisal of the publication selection bias was conducted.

4.4.9.2 Statistical Appraisal of Publication Selection Bias

The funnel plot is a method for exploring publication selection bias within a meta-analysis. The funnel plot measures the effect size against the inverse standard error of the effect size and appears symmetrical when bias is not present (Sterne et al., 2005; Terrin et al., 2005). Thus, the inverted funnel occurs as larger and more precise studies tend to be closer to the true effect, while smaller studies are more variable (Egger et al., 1997; Terrin et al., 2005).

The funnel plot was produced using effect sizes calculated and reported along the natural logarithm of the odds ratio, a requirement of SPSS. As seen in Figure 4.6, there were asymmetries present in the funnel plot indicating that there is some selection publication bias present within the analysis. Nonetheless, more complex tests—such as Egger’s linear regression model—can and was used to determine if the funnel plot’s asymmetry is statistically significant.

Figure 4.6

Funnel Plot Examining Publication Selection Bias

4.4.9.2.1 Egger’s Test for Funnel Plot Asymmetry

Egger et al. (1997) proposed a statistical test to formally review funnel plot asymmetry. The null hypothesis for Egger’s test is that symmetry exists in the funnel plot,

with the alternative indicating that asymmetry is present (Sedgwick & Marston, 2015). An Egger's regression-based test was performed using a random-effects model and inverse-variance weight, along the natural logarithm of the odds ratio. The regression coefficient does not have a clear interpretation in Egger's test. Rather, the interpretation of the test focuses on statistical significance, which indicates the effect size is related to sample size. According to Sedgwick and Marston (2015), statistical tests for detecting asymmetry in the funnel plot can occasionally have low statistical power with small sample sizes. Therefore, the results from the test should be interpreted in conjunction with a visual inspection of the funnel plot. Egger's test calculated a p of .250 for rates of sexual recidivism (see Table 4.10), indicating a non-significant level of asymmetry and no publication selection bias upon further investigation given that p was non-significant at the 5% level.

Table 4.10

Egger's Test for Funnel Plot Asymmetry

Parameter	Coefficient	Std. Error	p	95% CI	
				Lower	Upper
SE ^a	3.555	2.647	.250	-3.793	10.904

Note. ^a Standard error of the effect size.

4.4.9.2.2 Trim-and-Fill Method

When researchers are implementing meta-analytic techniques to explore new areas of research, it is possible that some studies may have been missed during the collection of data. The trim-and-fill method is a non-parametric test where the effect sizes and accompanying standard errors for any missed studies are predicted (Sedgwick & Marston, 2015). This occurs by trimming studies causing asymmetry in the funnel plot so that the overall effect estimate produced by the remaining studies can be considered minimally affected by publication bias. From here, missing studies are imputed into the funnel plot according to the bias-corrected overall estimate (Shi & Lin, 2019).

A trim-and-fill analysis was conducted using a random-effects model and inverse-variance weight, calculated along the nature logarithm of the odds ratio. The analysis imputed an additional predicted study estimate to the findings. A non-significant reduced logged odds ratio of 0.42 was produced (see Table 4.11). This indicates that treatment continued to have a small, albeit positive effect, on those participants who completed treatment, despite a reduction in the calculated effects size. The adjusted mean estimate of 0.42 is slightly smaller than the original 0.69 (a difference of .27). This suggests there is some publication bias but it is not a major influence on the outcomes of the estimated effect.

Table 4.11

Effect Size Estimates for Trim-and-Fill Analysis

Estimates	<i>k</i>	OR _{logged}	<i>p</i>	95% CI	
				Lower	Upper
Observed	6	0.69	.128	-.197	1.567
Observed and imputed ^a	7	0.42	.376	-.505	1.335

Note. ^a Number of imputed studies: *k* = 1.

4.5 Discussion

Study two was a meta-analysis that statistically quantified the effectiveness of treatment in reducing rates of sexual recidivism for people who had sexually offended. Further, it determined whether treatment is consistent or more effective for Indigenous or non-Indigenous people. To perform the analysis, data were obtained from seven studies included in the systematic review (study 1). Only a select sample of studies was used in the meta-analysis because of the prerequisite requirement that pre-identified studies needed to include both a treatment and comparison group. Comparison groups differed between studies but mostly comprised individuals who had engaged in a sexual offence but did not receive treatment or engage with the program. However, motivation for not engaging with the program could not be assessed given the limited information. Because not all studies in the

systematic review included a comparison group, those studies were excluded from the meta-analysis. The aim of the meta-analysis was to use statistical methods to calculate the effectiveness of treatment for Indigenous people in contrast to a comparison group—both for individual studies and as a collective.

This discussion section provides the answers to research questions three and five:

RQ3. How effective is treatment in reducing the sexual recidivism rates of Indigenous people who have sexually offended post-treatment?

RQ5. What are the factors that affect treatment outcomes for Indigenous people receiving treatment for sexual offending?

Research question three is answered by the results derived from the overall meta-analysis and within the context of the international literature. However, research question five is answered from the results derived from the moderator analysis to understand the variables that may affect the outcomes of the meta-analysis (RQ3). That is, the effectiveness of treatment goes beyond outcomes produced through data analysis because there are various factors that can be introduced into meta-analyses and, consequently, bias the outcomes. Adopting such an approach permits an honest and comprehensive interpretation of findings beyond simple outcomes.

4.5.1 Statistically Calculated Treatment Effectiveness

The effectiveness of treatment for all participants (regardless of Indigenous status) was statistically calculated from the collated recidivism data to answer research question three.

RQ3. How effective is treatment in reducing the sexual recidivism rates of Indigenous people who have sexually offended post-treatment?

Overall, treatment programs had a non-significant, albeit positive, effect on reducing sexual recidivism for both the Indigenous and non-Indigenous cohorts when viewed homogenously

(OR = 1.98). This is a positive and encouraging finding and similar to the broader meta-analytic literature internationally in using odds ratios to calculate treatment effectiveness for people who have sexually offended (Hanson et al., 2002, 2009; Kettrey & Lipsey, 2018; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015; Walker et al., 2004; also see Table 4.12).

Psychological treatment for people who had sexually offended was first investigated on a large scale ($k = 43$) by Hanson et al. (2002) using a sample of 9,454 individuals (of which 5,078 were treated). A statistically significant result was produced and indicated that treatment was effective for participants who completed (OR = 0.81; where a value below 1 is interpreted as effective). Lösel and Schmucker (2005) also confirmed treatment had a significant effect on reducing sexual recidivism with information drawn from 69 studies containing 80 independent comparisons (OR = 1.70; $N = 22,181$). These findings further align with a more recent meta-analysis restricted to high-quality studies (Kettrey & Lipsey, 2018) and those specifically focusing on treatment for young people who have sexually offended (Reitzel & Carbonell, 2006; Walker et al., 2004), pointing to the effectiveness of Western therapeutic practices. Although the present meta-analysis produced a positive effect (OR = 1.98) consistent with these previous meta-analyses, it did not produce a statistically significant result. It is anticipated that this is because of the small number of studies included, given previous meta-analyses with a low number of included studies were also unable to produce statistically significant results ($k = 8$, Kettrey & Lipsey, 2018; $k = 10$, Walker et al., 2004). Table 4.12 provides a complete overview of previous meta-analysis results and how they compare with the present study's findings.

Although positive and encouraging findings are derived from these prominent and comprehensive meta-analyses, these studies do not differentiate or report on recidivism outcomes from participants from varying Indigenous or ethnic backgrounds. Consequently,

the differences between Indigenous people and non-Indigenous people were a key function of the present study, given its aim of ascertaining whether treatment within these programs was effective for the two cohorts and to address a significant gap in the international literature. It was evidenced in the results that treatment was less effective for Indigenous participants who completed the programs than for non-Indigenous people who completed the same programs (OR = 0.74). This result was somewhat expected considering there were treatment programs that included Indigenous people but were not specifically designed to meet the needs of this group, consequently reducing engagement of the responsivity principle (Bonta & Andrews, 2007). This finding accentuates the need for treatment programs to be developed from a strengths-based approach, whereby culture is included for Indigenous people as a point of strength to build on (Thakker, 2014).

Table 4.12*Summary of Previous Meta-Analyses Conducted Between 2002–2018*

Study	Sample Size			Sexual Recidivism	Non-Sexual Recidivism
	TG (n)	CG (n)	Total	OR	OR
Past Reviews					
Hanson et al. (2002)	5,078	4,376	9,454	0.81, 0.50 ³	0.56
Hanson et al. (2009)	3,121	3,625	6,746	0.77 ³	0.75 ⁵
Kettrey & Lipsey (2018)	802	397	1,199	0.74 ³	0.58
Lösel & Schmucker (2005)	-	-	22,181	1.70 ⁴	1.67
Reitzel & Carbonell (2006)	1,301	1,685	2,986	0.43 ³	-
Schmucker & Lösel (2008)	9,512	12,669	22,181	1.70 ⁴	1.67 ⁵
Schmucker & Lösel (2015)	4,939	5,448	10,387	1.41 ⁴	1.45 ⁵
Walker et al. (2004)	644	-	644	0.37 ³	-
Present Review					
Total ¹	1,298	1,905	3,203	1.98 ⁴	1.52 ²
Indigenous TG v. Non-Indigenous TG	185	482	967	0.74 ⁴	
Indigenous TG v. Indigenous CG	82	166	248	2.39 ⁴	
Indigenous TG v. Non-Indigenous CG	71	807	878	1.14 ⁴	

Note. ¹ Total = Total treatment completers compared with the total comparison group,

irrespective of Indigeneity. ² This information related to violent recidivism. ³ The results from

these studies indicate higher treatment effectiveness the higher a result gets to 1.0.⁴ The results from these studies and the present study indicate treatment effectiveness when the result surpasses 1.0.⁵ These non-sexual recidivism rates included sexual recidivism as the authors use the definition of ‘any recidivism’ as opposed to non-sexual recidivism.

Given treatment was more effective in reducing sexual recidivism for non-Indigenous people in the treatment group—when compared with Indigenous treatment completers—it was important to understand the differences between Indigenous people who completed treatment and those who did not. A comparative approach permits a more in-depth understanding of treatment effectiveness when isolated to Indigenous people. Although these findings are positive, they must be interpreted with cautious optimism because only two studies reported information on an Indigenous treatment and Indigenous comparison groups. The findings of the two studies produced a large effect size ($OR = 2.39$), evident that treatment was effective for Indigenous people who completed the programs when compared with Indigenous people in the comparison group. Thus, although treatment was seen to be less effective for Indigenous people when compared with non-Indigenous people, these findings demonstrate that treatment has a positive effect for Indigenous people when isolating the analysis to Indigenous people only.

This encouraging finding may also be influenced by the programs under investigation being specifically designed for Indigenous people, demonstrating the importance of incorporating culture into treatment for Indigenous people. Thus, larger odds of success were produced when treatment included Indigenous participants and was designed for those Indigenous participants ($OR = 2.39$). In addition, although both methods were effective when including all participants, larger odds were produced for blended treatment approaches ($OR = 3.20$) when compared with CBT alone ($OR = 1.99$). By incorporating elements of culture into programs, treatment providers are fostering a higher level of trust and engagement with

participants, as well as personalising the approach to increase responsivity and the likelihood of reduced recidivism (Dawes et al., 2017; Hovane et al., 2014; Trudgett et al., 2024).

Colonisation has resulted in the breakdown of Indigenous cultural practices and lifestyles, contributing to the over-representation of Indigenous people in the criminal justice system and the need for more nuanced offender treatment programs (Cunneen, 2020; Tubex et al., 2020). According to Tubex et al. (2020), traditional Indigenous systems should be supported, strengthened and co-exist alongside the non-Indigenous world. Indigenous Elders and respected people, including from the wider Indigenous community, should be involved in matters that affect Indigenous offenders, including treatment programs (Dawes et al., 2017; Tubex et al., 2020).

It is difficult, however, to compare the effectiveness of treatment specifically for Indigenous people who have sexually offended given this is the first meta-analysis to take this approach. Other meta-analyses, as presented throughout this thesis, have reported the results of participants as a homogeneous group. However, it is well known that people who sexually offend are heterogeneous (Almond & Canter, 2007; Beckett, 2002; Horan & Beauregard, 2017; Robertiello & Terry, 2007). Although there is a lack of comparative research, Gutierrez et al. (2018) used meta-analytic techniques to understand the effectiveness of general offender treatment for Indigenous people. These authors examined the general recidivism rates of Indigenous people completing culturally relevant treatment compared with Indigenous people completing standard treatment. An OR of 0.72 (95% CI = 0.59, 0.89, $k = 7$) was reported, indicating that those Indigenous participants in the non-culturally sensitive treatment group were at higher odds of generally reoffending post-treatment. These findings align with the present meta-analysis in that treatment has higher odds of reducing recidivism when culture is incorporated into the program.

One unanticipated result concerned the effect of treatment for the Indigenous treatment group in comparison with the non-Indigenous comparison group who did not complete treatment. Despite lower odds of recidivism in the non-Indigenous group post-treatment, it was initially hypothesised that the effects of treatment would remain higher for Indigenous treatment completers than non-Indigenous people who did not complete treatment in the comparison group. However, the differences in recidivism outcomes were both minimal and marginal. It is, therefore, evident that increased research into the treatment paradigms for Indigenous people is required to extrapolate this finding.

Nonetheless, these results suggest treatment that is of cultural relevance—rather than drawing on generic Western models of therapeutic practice—will have higher odds for reducing recidivism. This outcome is consistent with the concept of *specific responsivity*, which states that treatment should be adaptive to participants' learning styles, cognitive functions, motivation and cultural background to influence engagement, progress and change (Bonta & Andrews, 2007), as well as result in more successful interventions that work towards the primary goal of reducing recidivism. The present analysis reported greater odds of Indigenous people reoffending when they did not complete treatment, in comparison to Indigenous people who did complete treatment. However, treatment was more effective for non-Indigenous participants overall, with only minor differences between Indigenous treatment completers and non-Indigenous participants who did not complete treatment. There may be several reasons for this occurrence, which relates to the biasing effects of studies introduced into the meta-analysis.

4.5.2 Factors Influencing Treatment Effectiveness and Biasing Effects

It is important to acknowledge the effectiveness of treatment goes beyond the outcomes produced through data analysis. There are various factors that can be introduced into meta-analysis and bias the results. It is, therefore, paramount to discuss in detail the

factors and biases that can influence treatment outcomes that were both identified from the moderator analysis but also may not have been identified. Producing a more nuanced and transparent interpretation of the results is a critical element of the current meta-analysis, allowing it to move beyond simple outcomes and ensure future research can be guided by current findings.

The present review's studies differed in the way recidivism data were retrieved, with some of these differences potentially affecting and influencing the results through a biasing effect. This section of the discussion explores the variables identified in the moderator analysis that influenced outcomes in the meta-analysis, including additional factors that may have affected outcomes. Such factors include arrest versus reconviction data, plea bargaining, over-policing, pseudo-recidivism and small post-treatment risk-to-reoffend periods.

Therefore, this section of the discussion provides an answer to research question five:

RQ5. What are the factors that affect treatment outcomes for Indigenous people receiving treatment for sexual offending?

4.5.2.1 Outcome Measures in Recidivism Studies

A prerequisite to inclusion in the meta-analysis was that studies contained recidivism information derived from official sources within the criminal justice system, such as the police or courts. Internationally, in line with the primary goal of reducing offending behaviour and given their capacity to be measured systematically and objectively through routinely recorded criminal justice system, reconviction data are used to evaluate the effectiveness of a treatment program data (Friendship et al., 2003; Tyler et al., 2021). It is, therefore, common practice to use official sources to obtain recidivism information for meta-analyses (Carl & Lösel, 2021; Hanson et al., 2002, 2009; Kim et al., 2016; Långström et al., 2013; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015, 2017; Walker et al., 2004; Winokur et al., 2006).

Because of concerns regarding the accuracy of reconviction as an outcome measure—both in the way it is recorded and whether it truly reflects levels of undetected offending—some researchers have moved towards implementing broader outcome measures of treatment success (Shoham & Haviv, 2024; Tyler et al., 2021). These broader outcome measures of treatment success have included arrest, re-arrest, absconding, probation or parole violations, breaches, parole suspension, parole revocation and incarceration data (Tyler et al., 2021). Many of the studies included in the current meta-analysis utilised these broader outcome measures—specifically arrest and charge—in addition to (re)conviction information. However, the use of arrest and charge information as a measure can result in false positives if there are findings of not guilty when processing through the court system. In addition, official statistics do not represent the entirety of recidivistic behaviours, insofar as some sexual offences may occur undetected or not be reported (Babinski et al., 2001; Loeber & Farrington, 1998; New South Wales Law Reform Commission, 2018; Stewart et al., 2024).

It is well established that the number of sexual offences perpetrated far exceeds the number that comes to the attention of the criminal justice system (ABS, 2023a; Doherty & Dowling, 2024; Weinrott & Saylor, 1991). A variety of factors can contribute to victim underreporting, including embarrassment and stigma associated with sex crimes, inadequate understanding of what constitutes a sexual offence, victim perception they will not be believed or the perceived ineffectiveness of the criminal justice system, feelings of shame and hopelessness, lack of anogenital injury or that the offence is not serious enough to warrant reporting (Ceelen et al., 2019; Felson & Paré, 2005; Fisher et al., 2013; J. S. Jones et al., 2009; S. Stewart et al., 2024; Wolitzky-Taylor et al., 2011). For younger victims there may be an inability to understand what constitutes sexual assault and, in the schooling context, a culture of ‘not snitching’ may affect victim reporting (Allnock & Atkinson, 2019). Victims of sexual assault also often need a period of consideration and strengthening before involving

authorities like the police. This period of consideration varies depending on multiple factors, and necessary evidence can be lost when periods of time are extensive (Stokbæk et al., 2021). Consequently, although all studies in the present meta-analysis utilised official sexual recidivism statistics measured by formal legal measures—such as re-arrests, charges and reconvictions—these measures do not provide a true representation of the sexual offender population (Babinski et al., 2001).

True measures of sexual recidivism in outcome studies should incorporate self-reported data because, when obtained anonymously and held confidential from legal authorities, it yields more valid measures than official documentation (Weinrott & Saylor, 1991). Although such information is viewed as important and able to contribute to an understanding of treatment effects regarding reduced recidivism, self-reported information was not incorporated in any study in the current meta-analysis. The benefits of including self-reported information were demonstrated by Groth et al. (1982) who conducted anonymous surveys with 137 people imprisoned for sexual offences. According to official records, the group had committed a mean of 2.8 sexual assaults per individual but self-disclosed a mean of 5.2 sexual assaults per individual. Weinrott and Saylor (1991) found among a sample of convicted sexual offenders ($N = 99$) an official offence rate of 1.8 victims, which increased to 11.7 victims when utilising self-reporting methods. Additional studies with similar methodological approaches have found that self-reporting methods portray a more accurate picture of sexual offending than that presented through official records (Abel et al., 1987; Auty et al., 2015; Binik et al., 1989; DeLisi et al., 2016; Freeman-Longo, 1985). Although no studies in the present meta-analysis included self-report information, such information can now be viewed as an integral element to understanding the effectiveness of treatment beyond what can be derived from ‘official’ measures of reoffending. The current findings could, therefore, be perceived as biased in some respects given they only communicate the criminal

justice system's ability to detect cases of sexual offending. The strength of validity in self-reported measures is strong because disclosures of arrests typically correspond to official arrest records (Auty et al., 2015).

Future research of sexual offender treatment programs should ensure self-reported information is included as a measurement of effectiveness where possible and appropriate. In addition to being a true measure of recidivism, self-reports offer a less time-consuming approach to gathering recidivism information (Pham et al., 2021). Although the approach has been questioned regarding accuracy in relation to deception (Schretlen & Arkowitz, 1990) and self-presentation bias (Robins & John, 1997), scholars have stated there is accuracy and validity in self-report offending data and that such data capture most offences (Auty et al., 2015; Pham et al., 2021; Thornberry & Krohn, 2000). Furthermore, Kroner et al. (2007) reported that violent offenders only underestimate 10% of crime-related content when self-reporting. Thus, although there may be the common assumption that self-reported data are biased, empirical evidence has shown these data to be more accurate than some scholars assume. Because self-reported and official records each contribute unique information and reflect different source of error, it is proposed that utilisation of both measures will provide the most inclusive indicator of post-treatment recidivism. Future research investigating treatment effectiveness should use both official and self-reported measures to inform effectiveness.

4.5.2.1.1 Arrests Versus Convictions

The present meta-analysis contained studies that defined recidivism using officially sourced information derived from convictions-only or charges and convictions and that may influence the interpretation of findings. As reported in section 4.5.2.1, it is now understood that there are various factors that impede the accuracy of official data in recidivism studies. As described by Worling and Långström (2006), before official recidivism data can be

recorded—whether arrest or conviction—the victim must understand what has occurred and be willing to report the crime to police. Once this has occurred, the police must be able to investigate the complaint and have evidence to arrest and charge the suspected offender. If an arrest is possible, the police must be able to charge the individual—reflecting a sexual offence and not a violent offence—and enter the correct details into their database. Finally, researchers must know the data are available and have access to it. Consequently, there are various points in time where attrition of the complaint may occur.

The use of official court convictions is an additional issue affecting treatment outcome studies that has an impact on the present meta-analysis. Studies in the current meta-analysis using conviction-only information—opposed to arrest or charge information—may have failed to capture the true extent of recidivism that has occurred—particularly when the prescribed risk-to-reoffend period was short. This is attributed to the lengthy process of successfully obtaining a conviction in contrast with a police arrest and charge. Further, a conviction relies on the charges not being dismissed or altered to a non-sexual but violent conviction through plea bargaining, as well as on the outcome of any adjudication process (discussed in depth in section 4.5.2.1.2; Worling & Långström, 2006). Although the level of detailed information required to investigate these issues further was not available from the studies in the meta-analysis, it has been argued by researchers that investigating the number of sexual offences post-treatment, rather than the dichotomous outcomes, may be a more sensitive measure of treatment effectiveness (Falshaw et al., 2003).

In conjunction with the issues presented above, one of the major issues with using reconviction rates as a measure of treatment effectiveness is the inability to detect statistical significance. This is a difficulty experienced in the present meta-analysis given the limited number of studies internationally that report on recidivism information for Indigenous people who had sexually offended. Sexual reconviction rates are generally low, which presents

difficulties for attempts to report statistically significant effects that are isolated to treatment (Falshaw et al., 2003). Moreover, the present meta-analysis contained studies reporting mean risk-to-reoffend periods as low as two years. The chances of a sexual offence coming to the attention of police and progressing through the court systems to a conviction before this time lapses is low.

The considerable length of a sexual assault trial has been recognised by the Victorian Law Reform Commission (2021). Their report documented that between 2014–2015 and 2018–19 the time between filing a hearing and the trial commencing for sexual assault was, on average, 11.6 to 15.7 months. The average time between a case starting and concluding was between seven and nine months. Data further indicated that the number of cases taking less than 12 months to complete had dropped in 2018–19, with more cases taking between 18 to 24 months (Victorian Law Reform Commission, 2021). It is, therefore, anticipated that some studies in the present review—particularly those using reconviction data—did not provide enough time for participants to reoffend. It is argued that researchers investigating sexual offender treatment programs continue to use reconviction measures, but do so in conjunction with other official measures (arrest, charge, breach information). It is, therefore, important that, if ethically appropriate, self-reported measures should be implemented to understand the ‘true’ effectiveness of treatment.

4.5.2.1.2 Plea Bargaining

The meta-analysis included studies utilising recidivism information defined as reconvictions for a sexual offence. However, no studies reported screening the data for plea-bargaining agreements made during the court processes—agreements that may bias the outcomes of the meta-analysis. Plea bargaining is the process of negotiation between a defendant and a prosecutor in a criminal case, where the defendant agrees to plead guilty to a lesser charge or accept a shorter sentence in exchange for a reduced punishment (Alschuler,

1979). A strong argument can be made supporting the hypothesis that individuals charged with a sexual offence may attempt to engage in plea bargaining to avoid sex offender registration. This statement is evidenced by the increased use of plea bargaining to convert sexual offences to non-sexual convictions as a result of self-conviction (Letourneau et al., 2010). Plea bargaining can and does occur for sexual offences in Australia, New Zealand, Canada and the US. For example, plea bargaining can occur at any stage of the prosecution in Australia and can be initiated by either the prosecutor or defence (Office of the Commonwealth Director of Public Prosecutions, n.d.).

The successful prosecution of a sexual offence is difficult for several reasons: victims may have a prior relationship with the offender, few assaults have a witness, physical evidence from the offence is often limited or unobtainable in historic cases and the court process can also take an emotional toll on the victim of the offence (Flynn & Freiberg, 2018; Freeman et al., 2009). Because these offences are difficult to prosecute, plea bargaining provides prosecutors with a means to dispose of cases quickly and economically while securing a conviction, bringing justice to victims and appeasing the public (Freeman et al., 2009).

Individuals who have engaged in a sexual offence may, therefore, accept a concession and plead guilty to an offence—such as a lesser, non-sexual charge—to avoid a sexual offender registry (Freeman et al., 2009). For example, after the establishment of the South Carolina Registration and Notification Policy in 1995, there was a 128% increase in the intake of plea bargaining among young people to change a sexual offence to a non-sexual offence (Letourneau et al., 2013). There was a further 52% increase in plea bargaining for the purposes of changing a sexual offence to a non-sexual offence when the policy was amended in 1999 to include lifetime online notification (Letourneau et al., 2013). These statistics are difficult to obtain from Australia, given only one state (Western Australia) has a public sex

offender registry (Taylor, 2017). The other Australian states and territories, and New Zealand and Canada do not have a registry that is accessible by the public (New Zealand Police, 2024; Royal Canadian Mounted Police, 2020). Plea bargaining has a negative impact on recidivism outcome studies, particularly those analysing the effectiveness of treatment because they disrupt the relationship between the act and the eventual conviction. However, the effects of plea bargaining on recidivism outcome studies and treatment evaluations have been relatively unexplored and should be considered for future research.

Although little is known on the use of plea bargaining among Indigenous populations, the biasing impact of plea bargaining may indirectly affect higher sexual recidivism rates for Indigenous people. It has been noted by scholars that unwarranted disparity can arise from prosecutors' substantial discretionary powers, particularly when left unchecked (Walker et al., 2016). Thus, legally irrelevant individual demographic characteristics may influence decisions to offer plea negotiations as a result of this discretionary power in the US (Frenzel & Ball, 2008). Frenzel and Ball (2008) investigated the effects of individual characteristics on prosecutors' plea-bargaining decision in a range of judicial proceedings ($N = 3,421$) for various criminal offence. Using multinomial logistical regression to compare outcomes for white and Black individuals, the authors found ethnicity to be an influencing factor. More specifically, Black and Hispanic offenders—opposed to white offenders—were more likely to have their case go to trial than straight pleading or negotiating a guilty plea (Frenzel & Ball, 2008). These findings are supported by empirical evidence suggesting white defendants are more inclined to receive reductions in penalties than Black, Spanish, Hispanic and African-American defendants (Bernstein et al., 1977; Farnworth & Teske, 1995). Furthermore, Bernstein et al. (1977) found Black and Spanish defendants were more likely to be convicted of a more severe charge if their cases were not disposed of at their first court presentation. Less is known for Indigenous people in Australia, New Zealand and Canada.

The disparity in plea negotiations does not always arise from prosecutors during the trial process. Racial and ethnic minority groups may request a trial because they want to be heard and because of a sense of apprehension about the criminal justice system (Frenzel & Ball, 2008). It has been suggested by Albonetti (1990) that defendants from minority groups have a distrust for the system and express this distrust by not pleading guilty and calling for a jury trial. More recently, Canadian Aboriginal plea-negotiation situations were explored by conducting semi-structured interviews with 25 justice system professionals. Whereas some participants stated that lawyers representing Canadian Aboriginal people take their time to understand their client and gain information from justice workers, it was evident that others rushed the cases through the judicial system by pleading them out (Bressan & Coady, 2017). Therefore, the plea bargaining process has a biasing effect on understanding the success of treatment for Indigenous people and needs to be understood further. Because studies in the current meta-analysis do not report screening out cases of plea bargaining, there may be cases of sexual offending that have not been included in the recidivism outcomes.

4.5.2.1.3 False Guilty Pleas (Gratuitous Concurrence)

A further complication that can affect recidivism outcomes is the cultural phenomenon known as ‘gratuitous concurrence’. In the dominant communication culture, the word ‘yes’ is often taken as signification for agreement and thereby serves as an indicator that something is understood. However, people who are linguistically, socially or culturally vulnerable will often express apparent agreement from a misunderstanding or the belief it is the safe thing to do (Gray, 2022), regardless of whether they agree with the proposition being questioned or lack complete understanding (Eades, 2013). Indigenous people are particularly prone to expressing agreement with police, which has led to the name gratuitous concurrence being provided to this phenomenon by linguists in the early 1980s (Gray, 2022; Liberman, 1980). A

consequence of gratuitous concurrence is that Indigenous people provide false ‘confessions’ to police and are, consequently, wrongfully convicted (Carling, 2017).

The agreement provided by Indigenous people to police represents a willingness to appear socially amenable but can also derive from issues stemming from cross-culture communication (MacFarlane & Stratton, 2016; Weathered, 2013). For example, communication difficulties arise from the complexities of the legal language, which create a barrier between the legal profession and Indigenous people. The use of Anglo-legal language epitomises an inherent power imbalance between anyone unfamiliar with process and the law (Gibbons, 2003). Although the issue is exacerbated for some Indigenous people, it also affects those individuals and communities for whom English is not the first language, as well as those who are disadvantaged by inequality regarding access to education (MacFarlane & Stratton, 2016; Schwartz & Cunneen, 2009).

In Australia, it is a requirement that interviews with suspects be recorded to guarantee transparency in the process, confirm that suspects have been properly cautioned by police and ensure that no coercion or force is used to obtain confessions (Stratton & Sigamoney, 2020). In addition, Australian police utilise the PEACE (Preparation and Planning, Engage and Explain, Account and Clarification, Closure and Evaluation) model when conducting interviews (Dioso-Villa et al., 2016). This approach, unlike other techniques, encourages police interviewers to find the truth and allows suspects to give their own account. With these safeguards in place, it is assumed that confessions that are coerced or fabricated by police would be unlikely. This approach does not, however, eliminate the possibility of innocent Indigenous suspects falsely confessing (Dioso-Villa et al., 2016).

4.5.2.1.4 Pseudo-Recidivism

Pseudo-recidivism refers to an event where an offender is provided additional charges for crimes committed before they were apprehended for the current offence (Babchishin et al.,

2012). Studies included in the present review did not screen for pseudo-recidivism despite all studies including recidivism as the measure of effectiveness. Although it is a unique phenomenon, minimal attention has been paid within the wider psycho-criminological literature and has the ability to affect the outcomes of research measuring the effectiveness of offender treatment programs. Scenarios where pseudo-recidivism can occur, particularly within the reviewed studies, are when several offences occurring in a ‘crime spree’ are treated as separate instances of recidivism (Vandiver et al., 2019). It also occurs in situations where long-term or historical sexual offences have occurred years prior, but the participant is charged for these offences during the post-treatment follow-up period (Moss et al., 2022). Phenix et al. (2008) noted this commonality among the sexual offender population when public notoriety or media publicity surrounding an offender’s trial or release leads to other victims of past offences making their cases known to the criminal justice system. Because the individual has not been charged with these offences previously, they have not experienced a legal sanction and the offence commonly appears as recidivism during the risk-to-reoffending period (Phenix et al., 2008).

Babchishin et al. (2012) have estimated that pseudo-recidivism applies to approximately 5% of people who have sexually offended. Similarly, when examining recidivism among a cohort of 471 female sexual offenders, Vandiver et al. (2019) identified 82 individuals with re-arrests within one year of the index offence. Of these, 17 had new sexual offences and 65 were identified as pseudo-recidivists (Vandiver et al., 2019). Eke et al. (2011) also found among a sample of 541 male child pornography offenders that 35 had acquired a new sexual offence, with a third of those ($n = 13$) being historical pseudo-recidivism offences. Given that the studies in the present meta-analysis did not discuss screening out or controlling for pseudo-recidivism, this could have affected the outcomes of treatment effectiveness regarding recidivism. Precautionary measures should be implemented

to identify pseudo-recidivism in sexual offender recidivism studies, and general offender treatment programs—particularly those with a limited risk-to-reoffend period—because they are likely to overestimate recidivism if pseudo-recidivism is ignored (Vandiver et al., 2019).

4.5.2.1.5 Risk-to-Reoffend Periods

In the systematic review and meta-analysis, five studies had a risk-to-reoffend period of less than three years, with nine studies having a period of less than five years. One study failed to report the risk-to-reoffend period. These risk-to-reoffend periods are considerably shorter than other studies, which ranged from five to 25 years (Borduin et al., 2009; Caldwell, 2016; Hanson et al., 2002; Looman et al., 2000; McGrath et al., 2003; Schaeffer & Borduin, 2005; Winokur et al., 2006). It is conceivable that treatment evaluations for people who have sexually offended are held to a higher standard than other research evaluations due to the significant harms caused to victims, their families and, more broadly, to society. Accordingly, because there is the expectation from governments and the public that lifelong remission will occur post-treatment, shorter risk-to-reoffend periods may assist in achieving more positive outcomes of reduced sexual recidivism.

The prescribed risk-to-reoffend period in recidivism outcomes studies is important for two primary reasons. First, short risk-to-reoffend periods provide less of an opportunity to detect sexual offences in contrast with measuring the effects of treatment over several years. Second, studies with a short risk-to-reoffend period that utilise reconviction data may not provide enough time for charges to be processed through the court system and result in a conviction, given the extensive time taken to prosecute a sexual assault case (Victorian Law Reform Commission, 2021). Higher rates of recidivism are, therefore, logically observed in studies with longer risk-to-reoffend periods (Schmucker & Lösel, 2017). It is anticipated that additional cases of sexual recidivism may have come to the attention of the criminal justice

system if data were collated over an extended period, affecting the outcomes of the meta-analysis.

During the moderator analysis, the risk-to-reoffend period variable was selected to understand whether treatment had more effective results when a lower period was prescribed. Here, risk-to-reoffend periods were collapsed into two categories: 25–36 months (approximately 2–3 years) and 37–60 months (3–5 years). The results suggested treatment to be significantly more effective at $p < .001$ in those studies using a shorter risk-to-reoffend period than in those in the longer timeframe. The three studies utilising shorter risk-to-reoffend periods also used reconviction, or re-arrest and reconviction, as the measure to determine recidivistic behaviours. Therefore, the short risk-to-reoffend period in conjunction with the reconviction data may have inhibited the detection of recidivistic behaviours. Consistent with Schmucker and Lösel (2017), recidivism logically increased when the risk-to-reoffend period increased. Reitzel and Carbonell (2006) also concluded their meta-analysis stating longer follow-up periods within studies are required before definitive conclusions can be produced. Thus, although treatment may be interpreted as being highly effective for Indigenous participants, this may be a result of short risk-to-reoffend periods. Future research should investigate the effects of short risk-to-reoffend periods in conjunction with reconviction data and whether this methodological process is ethically suitable given the biasing interpretation of information. Moreover, the studies utilising this methodological approach should re-review recidivistic outcomes to understand the effectiveness of treatment longitudinally.

4.5.2.2 Levels of Aggregation in Samples

Another biasing effect on treatment outcomes may be produced from concerns regarding the level of aggregation within samples. Although studies reported rates of sexual recidivism for the total sample (treatment group and comparison groups), this approach is

only appropriate if all participants have a similar demographic profile and offence history (Zgoba & Simon, 2005) because of the evidence that recidivism rates for people who have sexually offended are considerably heterogeneous. For example, Sample and Bray (2006) reported a significant difference in rates of re-arrest for those who engaged in rape (sexual penetration), child molestation (sexual assault) and hebephilia offences (pre-teen sexual assault) compared to those convicted of child pornography (exploitation material) and paedophilia (sexual penetration of a child).

Differences regarding the aetiology, motivation, reoffending rates and treatment needs for sexual offenders who have engaged in a contact or non-contact offence are well established (Andrade et al., 2006; Aslan & Edelmann, 2014; Babchishin et al., 2011; Gallo, 2020). However, a lack of comparison in the recidivism rates for the varying sexual offender types—even between contact and non-contact offenders—means participants are still treated as a homogeneous group. Although the two offender groups differ across varying levels, information concerning the recidivistic differences for the two cohorts is absent. Studies calculating a composite recidivism rate for all participants, irrespective of treatment completion, conceal important intra-group differences (Zgoba & Simon, 2005). It is, therefore, important that future studies report the rate of recidivism for the sample, but also provide a breakdown of recidivism data into heterogeneous sub-categories for varying contact (sexual penetration, sexual assault) and non-contact (online offenders, child exploitation material) offenders. This breakdown should be conducted for Indigenous people and non-Indigenous people and within the varying groups of interest, something that was largely absent in the present meta-analysis.

4.5.2.3 Prison Samples

Finally, in the present review, treatment was seen to be most effective when provided within a prison environment (versus treatment provided in the community). However, prison

samples may be another factor biasing the effects identified in the present investigation, because participants were incarcerated, their ability to sexually reoffend may be restricted by their ability to commit a new offence. Post-release, prisoners may be placed on stringent supervision conditions—particularly those released after committing a sexual offence (Pickett et al., 2013)—which may serve as a protective factor to keep recidivism low. However, for this study, an investigation into the conditions placed post-release was restricted by the level of data provided within individual studies. That is, studies did not communicate whether the risk-to-reoffend period initiated upon release from prison, or whether this started once the program had been completed. Therefore, participants may not have reoffended because of their imprisonment.

In addition, if sexual offences were committed in prison, they may have been managed in prison with additional prison sanctions, rather than being formally processed through the criminal justice system. According to Martyniuk (2014), accounts from prisoners and employees suggest victims of prison sexual assaults do not report them because perpetrators almost never face criminal charges. Furthermore, it has been found that many prisoners do not officially report a sexual assault because of embarrassment, fear of harassment or reprisal at a later stage and because it may be viewed as snitching (Butler et al., 2023; Garland & Wilson, 2013; Levan Miller, 2010).

It is important for meta-analysts to report on the outcomes from their data analysis. It is, however, just as important that meta-analysts provide an in-depth consideration of their findings and how varying aspects may affect or bias the review's outcomes. This depth of analysis provides a more accurate picture of treatment effectiveness. Although the findings from the present meta-analysis are positive in the overall analysis, they must be interpreted in respect to these potential biasing effects. Analysts performing future evaluations should consider how these variables could affect the outcomes of studies when designing their

methodological approach. Given many of the variables discussed relate to recidivistic outcomes, consideration must be given to whether recidivism is an appropriate measure for sexual offender treatment outcome studies and, more importantly, Indigenous people.

4.5.3 Moving Beyond Recidivistic Outcome Measures for Indigenous People

The results of this review indicate that Indigenous people were more likely to reoffend post-treatment than non-Indigenous people. Although there may be varying factors inflating the recidivism rates—which have been discussed—these findings must also be considered in light of the over-policing of Indigenous communities internationally (Cunneen, 2020) and the role this plays in the inflationary effect of recidivism statistics. The over-policing of Indigenous people and their communities is a major biasing effect in the current systematic review and meta-analysis. However, this bias and its impact on a meta-analysis have not been discussed or explored in the international literature and may distort results from outcome studies and meta-analyses.

Over-policing refers to the way Indigenous people and Indigenous communities are policed differently and more extensively than non-Indigenous Australians (Cunneen, 2020). Over-policing occurs in Australia (Cunneen, 2020; O'Brien, 2021), New Zealand (Webb & Deckert, 2023), Canada (Alberton et al., 2023; David & Mitchell, 2021) and the US (Perry, 2006, 2009; Skoog, 2019). This institutional concept is grounded in the Indigenous experience of the criminal justice system, with police representing the governmental body whose first interactions with Indigenous communities resulted in wider attention from other institutions within the criminal justice system (for example, processing through the courts and corrections system). Police represent the frontline in criminal justice interactions with cultural groups and, in their interactions, have carried stereotypes and images that shape the broader patterns of cultural imperialism (Perry, 2006, 2009). Although there are many geographical, historical and cultural differences between Indigenous people in Australia, New Zealand,

Canada and the US, they share comparable experiences of British colonisation, as well as comparable political arrangements leading to the development of Westernised policing, court and correctional systems (Broadhurst, 2002; Cunneen & Tauri, 2019; Jones et al., 2016).

The direct consequence of colonisation is a history of distrust between Indigenous people and police in many jurisdictions. Australia, New Zealand, Canada and the US, to varying degrees, all used military and paramilitary forces to subjugate Indigenous people (David & Mitchell, 2021; Jones et al., 2016; Rudin, 2016). Current police services are viewed as the progeny of these forces. Australia witnessed the administration of government policies of so-called ‘protection’ throughout most of the twentieth century. Protection policies resulted in the forced removal of children from their parents and kin from a misguided perception of unsafe (different, non-Anglo) environments (Barclay & Scott, 2013). Self-efficacy was eroded and Indigenous Australians became over-regulated in their reserves, camps and movements in rural towns (Barclay & Scott, 2013). These historic practices were experienced by many older Indigenous people and the harms of these actions continue to be felt individually and intergenerationally by Indigenous communities today. It is these practices and the systematic racism associated with them that have caused distrust between Indigenous people and the police and have resulted in and contributed to the inflated recidivism rates.

In 1997, the New Zealand Police Force collaborated with Tw Puni Kokiri to commission a joint in-depth research project to understand and address the major concerns regarding the negative relationship between Māori communities and police (Tauri et al., 2005). The report, titled *Challenging Perspectives: Police and Māori Attitudes Towards One Another*, highlighted the common perceptions and experiences of the police held by Māori people. These included (i) the hostility of police as an institution towards Māori communities and their cultural practices, (ii) negative perceptions of Māori communities held by police, (iii) the significant distrust of police by Māori people, (iv) the discriminatory nature of

interactions between police and Māori people, (v) racist and negative preconceived ideas and attitudes held by police towards Māori people and Māori issues and (vi) the institutionally racist culture of the New Zealand Police Force (James, 2000; Tauri et al., 2005). More recently, a survey of citizen satisfaction with the New Zealand Police found Māori respondents to be significantly more likely to give a rating of ‘*not much/no trust and confidence*’ (Gravitas Research and Strategy, 2020). Similar sentiments were conveyed in 278 interviews with First Nations Americans from seven states in the US (Perry, 2006). The qualitative analysis revealed the under-policing of Native American victimisation and over-policing of Indigenous communities, with a tendency for police to over-enforce the law against Native Americans. Participants also identified racial profiling to be a widespread issue associated with the over-policing of communities. All of these contribute to inflated recidivism data (Perry, 2006).

Over-policing is often associated with the targeting of individuals living in a specific area, particularly in socio-economically disadvantaged regions (Rudin, 2016). Over-zealous surveillance and excessive contact results in a heightened risk of arrest and, therefore, prosecution for Indigenous people (Perry, 2009). This means that the results of the present review must be interpreted with caution because these findings compared non-Indigenous people to Indigenous people—a group that is over-policed in the countries included in this review—this may inflate recidivism outcomes for Indigenous people. Consequently, treatment may produce similar effects for non-Indigenous and Indigenous people but the effects of over-policing can distort the perceived effects of treatment through increased rates of recidivism, given Indigenous people are more likely to be apprehended by police than non-Indigenous people.

It is well established that research investigating the effectiveness of treatment for people who have engaged in a sexual offence is designed to identify significant differences

and associated changes in recidivism post-treatment (Carl & Lösel, 2021; Gallagher et al., 1999; Hanson & Bussiere, 1998; Hanson et al., 2002; Långström et al., 2013; Lösel & Schmucker, 2005; Reitzel & Carbonell, 2006; Schmucker & Lösel, 2008, 2015, 2017; Walker et al., 2004; Winokur et al., 2006). Change at a pre-treatment and post-treatment group level is used to understand a treatment program's reported effectiveness. This measure of change in recidivism is measured at a prescribed post-treatment follow-up period. However, because there are significant issues arising from the over-policing of Indigenous people, it may be more appropriate for research to use new methods to understand treatment benefits and effectiveness for Indigenous people. Such measures could come from changes in proximal outcomes—which are changes that occur shortly after the completion of treatment—as well as recidivism figures, which is measured longitudinally (Nunes et al., 2011; O'Brien & Daffern, 2017). For example, a consideration of proximal outcomes could investigate a treatment program's ability to produce changes in dynamic risk factors for Indigenous people, including behavioural, psychological and attitudinal changes post-treatment.

More accurate and usable information may come from a shift in attention towards the assessment of intra-individual changes for Indigenous people. Measuring various other program outcomes in addition to recidivism can provide a more sensitive, comprehensive and nuanced consideration of what assists Indigenous people along their path to desistance (Pooley, 2020; Stout et al., 2017). Intra-individual changes may be derived from psychological and behavioural changes, such as decreased anxiety, depression and other psychological symptoms. Furthermore, changes can also include increases in the effective use of coping skills in dealing with psychosocial stressors, improvements in sexual and general self-regulation, and the use of strategies to meet psychological and emotional needs in healthy, non-harmful and adaptive ways (Levenson & Prescott, 2014). Finally, new measures of intra-individual changes for Indigenous people should also seek information on readiness

to change, educational engagement and employment attainment, as well as on relationship and prosocial engagements, in a manner that is culturally sensitive and respectful of the individual's ties to culture (Pooley, 2020).

Studies should also report information in relation to therapist characteristics and Indigenous therapist characteristics, which was largely neglected in the present systematic review and meta-analysis. The concept of including therapist characteristics and measures in outcome research for Indigenous people is important for moving away from the question '*what works?*' to '*what works for whom?*'. Treatment providers can progress beyond administering content and assist those who have sexually offended to invest in the treatment process, with the knowledge that change is desirable, possible and attainable (Levenson & Prescott, 2014). Important measures include: whether the therapist has a cultural background similar to the Indigenous people presenting at treatment; measures of therapist engagement, investment, participation with treatment recipients; the successful integration of treatment concepts; and levels of cultural awareness. Such an approach would facilitate therapists to collaborate with their clients to identify problems and determine the most effective solutions. In addition, therapists should be optimistic and identify long-term goals and have a genuine interest in understanding the participants' experiences (Jennings & Deming, 2017; Levenson & Prescott, 2014; Stout et al., 2017).

Treatment providers need to be invested in the therapeutic process to ensure the successful facilitation of behavioural change occurs and should base their services in the identified strengths and needs of Indigenous participants. Thus, a positive relationship between the participant and treatment provider is required and crucial to program effectiveness (Blasko & Jeglic, 2015; Tamatea & Brown, 2011; Watson, Daffern & Thomas, 2017; Watson, Thomas & Daffern, 2017). This relationship should be founded in openness, respect, clarity and a level of humour, with the purpose of interactions being to instil and

reinforce protective factors that enable participants to desist from their offending behaviours (Pooley, 2020). There are difficulties ascertaining from the present review whether success has been achieved when study authors are limited in their ability to conclude whether treatment has been administered effectively. Measuring treatment delivery would provide a sound method for exploring why treatment programs report different levels of recidivism while delivering the same treatment. Such an approach would also facilitate understanding the outcomes of treatment and services delivered to Indigenous participants by culturally trained staff. This information should come from program facilitators themselves and is an element considered in the third and final study.

4.5.4 Limitations

The limitations of the current study are influenced by the quality and limitations of the studies examined as part of this meta-analysis. However, these limitations of the studies that may have affected the outcomes of this meta-analysis have been identified to assist future evaluations conduct a more robust investigation of treatment effectiveness. In addition to the limitations discussed throughout study 2 and the biasing effect of over-policing on recidivism results for Indigenous people, there is an additional limitation that should be discussed within the current study. The present meta-analysis included a limited number of studies, which is a problem for meta-analyses targeting specific populations—opposed to meta-analyses focused on ‘sexual offending’ more broadly. For example, meta-analyses focusing on specific populations or study types, such as young people who have sexually offended (Reitzel & Carbonell, 2006; Walker et al., 2004; Winokur et al., 2006), methodologically strong studies (Kettrey & Lipsey, 2018; Schmucker & Lösel, 2015) and culturally relevant offender programs (Gutierrez et al., 2018), have all experienced a small number of included studies. This limitation and finding highlights the need for more research that focuses specifically on the effectiveness of treatment for Indigenous people who have sexually offended. The

research also needs to be stronger and an inherent part of the program delivery rather than an afterthought and retrospective analysis of available data.

In addition, an increase in the methodological quality of empirical studies is required, along with more transparency in the communication of design and findings. Before entering into a discussion on methodological strategies, it is important to acknowledge the difficulties of conducting treatment evaluations with people who have sexually offended. It is recognised, for example, that medical-like studies (e.g., RCTs) are not ethical approaches for evaluating treatments for people who have sexually offended (Långström et al., 2013; Marshall, 1993; Marshall & Marshall, 2007; Marshall & Pithers, 1994). However, there are some inherent issues with the present included studies. For example, the comparison group in Allan et al. (2003) comprised young people convicted between 1990 and 1992, which was before the treatment program under investigation was established. Although these young people may have received treatment elsewhere for their sexual offending, this effect was not controlled for. More research with specific attention being paid to methodologically sound approaches is required before definitive conclusions regarding best practice can be drawn.

4.6 Study 2 Summary

Presenting sexual offender treatment efficacy, study 2 is the first meta-analysis to investigate the effectiveness of treatment provided to Indigenous people who have sexually offended. It identified treatment was effective for all participants regardless of Indigeneity, but the largest odds of reduced recidivism centred around comparisons between Indigenous treatment completers and the Indigenous comparison group. Despite this positive finding, there was almost no difference in treatment outcomes for non-Indigenous people who did not complete treatment and Indigenous treatment completers.

Studies including culturally relevant approaches produced some of the largest effect sizes that were statistically significant in comparison with CBT. In addition, treatment that

proceeded for a longer duration had statistically significant effects for reducing recidivism. These finding must be interpreted with strict caution, however, given inherent biases identified from the use of recidivism for Indigenous people who are over-policed. Because over-policing may have influenced outcomes in this review, in addition to other biasing variables, a more definitive conclusion regarding treatment effectiveness is yet to be achieved.

It is, therefore, urged that treatment program providers consider the approaches to treatment that are currently used and ensure cultural components are implemented to ensure positive outcomes are achieved. Moreover, it is urged that scholars conduct more research into the effectiveness of treatment for Indigenous people who have sexually offended, but ensure that research approaches are of a sound methodological quality and culturally sensitive.

To ensure future evaluation are to a high standard, program evaluators need to collect data and provide adequate information on:

1. General study characteristics
2. Treatment characteristics
3. Offender characteristics
4. Victim characteristics
5. Methodological characteristics
6. Recidivism characteristics
 - 6.1 Non-Indigenous separate to Indigenous
 - 6.2 Various re-offence types

A framework for the types of information that should be both recorded and reported has been developed as part of this thesis and is accessible in Appendix 5. This framework includes 272 points of information that should be utilised and viewed as a high, but achievable standard, for future evaluators.

Finally, given there is limited published research internationally, and as specifically recommended in study one (section 3.5.4.4), future research needs to gain knowledge by surveying treatment programs for a more in-depth overview of routine practice. The limited published research has highlighted the need to gain knowledge from service providers of treatment programs. This has provided the impetus for the third and final study.

Chapter 5: Study 3

Chapter Four presented Study 2, a meta-analysis conducted to determine the statistical effectiveness of treatment and to understand the variables that may bias the results. Given the limited number of studies identified that focused on recidivism outcomes for Indigenous people following treatment, it became apparent that to more fully understand the role of RNR in treatment it would be necessary to investigate the types of routine practice currently provided to Indigenous people. Chapter Five addresses this gap by conducting a survey of routine practice, to gain a more in-depth understanding of various participating sexual offender treatment programs in Australia. Such an approach oversteps the barrier of seeking published research by surveying the organisation that provide treatment to Indigenous people who have sexually offended directly.

5.1 Research Aim

Study three aims to provide a foundation of knowledge regarding the routine practice of treatment for the Indigenous people of Australia (specifically Aboriginal and Torres Strait Islander people) by contacting practitioners, program facilitators and experts who provide treatment. The rationale for this study was the recognition, upon completion of studies 1 and 2, that further investigation was required to gain more insight into the methods of treatment that were not captured or were missing in the literature. Therefore, an investigation into the routine practice of sexual offender treatment programs in Australia was conducted with an explicit focus on Aboriginal and Torres Strait Islander people as participants of those programs. Australia was the specific focus because an international survey including New Zealand, Canada and the US was beyond the scope of this thesis. Study three is, therefore, a smaller study that complements studies 1 and 2 by investigating how programs are delivered to Aboriginal and Torres Strait Islander participants in Australia from the specialised

perspectives of treatment providers (the most senior person within an organisation who provides treatment to participants).

5.2 Research Questions

Study three addresses research question six from an Australian perspective:

RQ6. Does treatment for Indigenous people [in Australia] who have sexually offended adhere to the fundamental principles of risk, need and responsivity?

5.3 Methodology

5.3.1 Design

A survey was disseminated nationally to state and territory-level governments, independent treatment programs and experts who provide treatment to Aboriginal and Torres Strait Islander people who have sexually offended. The survey was originally developed by Dr Johann A. Koehler at the London School of Economics and Political Science for the purpose of understanding correctional treatment programs for young people within the European Union (Koehler, Hamilton & Lösel, 2013). However, with the author's permission and advice, the original survey was modified for the current study to focus solely on treatment for people who had sexually offended and utilised appropriate terminology such as 'Aboriginal and/or Torres Strait Islander people' (see Appendix 6). Thus, the survey contributed to the first and second studies by acquiring additional information on treatment programs that aim to address sexual offending by Aboriginal and Torres Strait Islander people. Information pertaining to five central themes over five subsections was gathered through multiple choice and semi-structured questions:

- (i) General Program Information (section 5.3.2.1)
- (ii) Description of Treatment Program (section 5.3.2.2)
- (iii) Aboriginal and Torres Strait Islander Risk, Need and Responsivity (section 5.3.2.3)

- (iv) Aboriginal and Torres Strait Islander Treatment Attrition (section 5.3.2.4)
- (v) Documentation and Evaluation of Treatment Program (section 5.3.2.5)

The information provided by participants across these five central themes organically lead to a discussion section on the need to reject a one-size-fits all model through the decolonisation of sexual offender treatment programs in Australia (section 5.3.2.6)

5.3.1.1 *Contacting Participants.*

The sample required was the most senior service provider from each organisation who has an active role in providing or facilitating treatment for Aboriginal and Torres Strait Islander people who have engaged in a sexual offence in Australia. To recruit participants, three information streams were used, and all prospective participants were contacted via email.

1. Justice and Correctional Departments. Research applications were completed and submitted to all relevant justice or correctional department research and ethics committees within each state and territory of Australia. If approval was received, a request was made to be put in contact with the responsible person or division within the department to gather program data. See section 5.3.1.2 for an in-depth outline of the process.
2. Scoping Search. A scoping search was conducted via the Google Search Engine using selected keywords from the systematic review (study 1) to locate private organisations and local community-based treatment facilities within each state and territory.
3. Academics and Experts. Contact was made with academics and experts in the area of treatment for people who have sexually offended. These individuals were asked for the names of relevant treatment programs with facilitators who could be contacted as participants for the project.

5.3.1.2 State and Territory Research Applications

Research applications and research ethics documents were completed and submitted to every relevant governmental departments in all states and territories throughout Australia. Because the application processes vary for each state and territory, the following sections outline the application processes for each jurisdiction.

5.3.1.2.1 Western Australia

A request to conduct research with the Department of Justice in Western Australia was lodged on 21 April 2023. The application was submitted to the Research Application and Advisory Committee. However, the request was not approved by the then Department of Justice Director General. Support was not provided because the sexual offender treatment programs offered by the Western Australia Department of Justice were being scheduled for replacement. The department's rationale was that information gained from the survey would be derived from outdated evidence not specifically developed for Aboriginal people who had sexually offended in Western Australia (see Appendix 7).

5.3.1.2.2 South Australia

An expression of interest form was completed for the Department of Corrective Services in South Australia. A letter was also prepared for consideration by the Aboriginal Services Directorate given the survey was derived from information relating to Aboriginal and Torres Strait Islander people. The expression of interest was tabled at the Research and Evaluation Management Committee on 25 May 2023. In principle approval was granted according to the expression of interest (see Appendix 8) and a full application to conduct research was completed and considered by the Research and Evaluation Management Committee on 20 July 2023. The committee reviewed the full application and permission was granted to conduct research with the South Australian government (see Appendix 9).

5.3.1.2.3 New South Wales

A research request application was complete for the New South Wales Department of Correctional Services. The initial application was presented to the Secretariat of the Correctional Services Ethics Committee who provided written feedback on the submitted document. A meeting was then held with the Secretariat following a review of the document and an amended version was submitted to the Correctional Services Ethics Committee and tabled on 29 June 2023. Advice was also sought from the New South Wales Department of Correctional Service's Chief Psychologist on which sexual offended programs could be included in the sample and contacted as prospective participants. Following this, the research application form and accompanying documents was re-submitted to the New South Wales Correctional Services Ethics Committee. On 17 July 2023, the committee ruled the research project had importance and merit, although clarification was required in some areas (see Appendix 10). A revised version of the document satisfying the committee's concerns was later submitted on 7 August 2023. The committee requested that the survey questions were changed in some areas; however, the survey was unable to be changed because approval had already been provided by several other jurisdictions. Changing questions in the survey would effectively alter what the survey sought to understand and would make it inconsistent with what had been approved by other jurisdictions. The committee also required Indigenous oversight from each state and territory in Australia. Because these requirements could not be satisfied, it was decided by the candidate and supervisors to withdraw the ethics application.

5.3.1.2.4 Tasmania

A research request form was completed for the Tasmanian Prison Service and submitted to the Chairperson of the Research Ethics Committee. The Chairperson responded with feedback on the application prior to submission to the Research Ethics Committee. Amendments were made to the application according to this feedback and the finalised

application was submitted and tabled to the Research Ethics Committee on 26 June 2023. The application to conduct research was later approved by the committee and signed off by the Director on 28 July 2023 (see Appendix 11).

5.3.1.2.5 Victoria

A research ethics application was lodged for consideration by the Victoria Justice Human Research Ethics Committee. The application was initially reviewed by the Senior Research Coordinator prior to being submitted to the Ethics Committee. The project was considered on 17 July 2023; however, the Ethics Committee did not support the research. Despite acknowledging the need for long-term research in the area of treatment for Indigenous people who had sexually offended, the committee stated that Victoria does not currently have any Indigenous-specific sexual offender treatment programs, noting the small number of Indigenous participants in mainstream programs (see Appendix 12). The Ethics Committee further suggested that this may affect the generalisability of results from Victoria. The decision was made in light of the survey targeting any sexual offender treatment programs that include Aboriginal and Torres Strait Islander people, not necessarily those specifically designed for Aboriginal and Torres Strait Islander people. Finally, the Ethics Committee noted the Forensic Intervention Services Team, who provide the required programs, did not currently have the capacity to collate the required information to support the research.

5.3.1.2.6 Queensland

A research application was submitted to the Queensland Corrective Services Research and Evaluation Committee on 16 June 2023. The committee considered the project at their meeting on 8 August 2023 and approval was provided by Queensland Corrective Services Acting Assistant Commissioner on 15 September 2023 (see Appendix 13).

5.3.1.2.7 Australian Capital Territory

An expression of interest to conduct research with the Australian Capital Territory's Department of Justice was completed and initially tabled on 14 June 2023. Because the Department of Justice in the Australian Capital Territory did not have a specific research application process, a document with detailed information on the project, as well as the survey, participant documents and approval from the Edith Cowan University Human Research Ethics Committee was provided to the Senior Director of Strategy, Data and Research. After some clarification with the Senior Director with regard to which programs the project was targeting, an official request was provided to the Commissioner of Corrective Services. The Acting Commissioner provided their approval for the research to be conducted on 2 August 2023 (see Appendix 14). The Director of Programs and Interventions assisted in locating and providing documents to prospective participants.

5.3.1.2.8 Northern Territory

A research application was prepared to conduct the survey with the Northern Territory's Department of Justice. The application was submitted to the Northern Territory Corrective Services Senior Leadership Group on 27 July 2023. The Senior Leadership Group considered the application and provided their approval for the research to be conducted on 31 October 2023 (see Appendix 15).

5.3.1.3 *Planned Analysis*

Survey responses were collected using Qualtrics software. First, the survey was built in Qualtrics and tested several times to ensure correct skip logics were implemented. To ensure the survey would perform adequately when completed by participants, a trial run was completed by an individual external to the thesis to ensure all information was correct and no structural errors within the digital survey were present. The completed and returned responses were exported from Qualtrics into SPSS and coded in a twostep process. First, the categorical

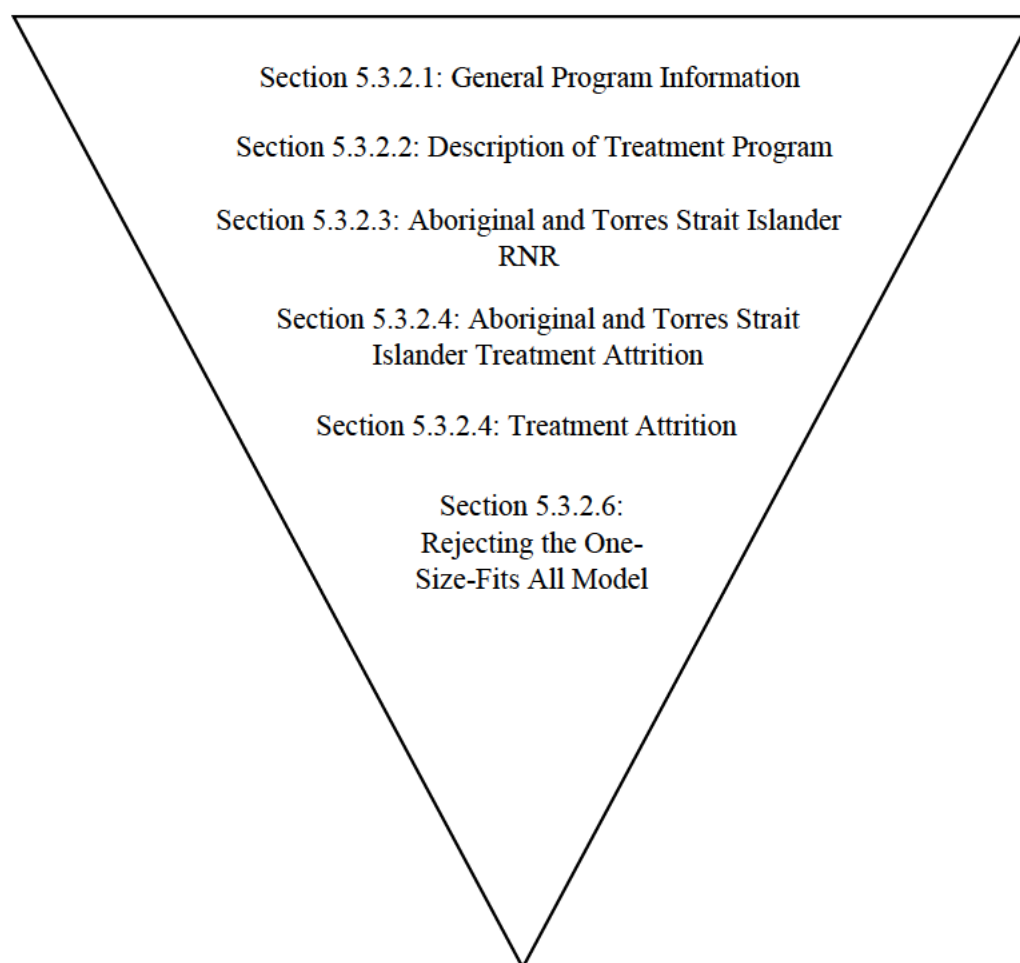
options from the multiple choice responses were coded directly from the survey. As in the first study (systematic review of the literature; see Chapter 3) and Koehler, Hamilton and Lösel (2013), descriptive statistics were used to analyse the multiple choice survey responses. A manifest content analysis approach was also used to explore surface-level meanings and patterns that emerged from the explicit content provided in the open-ended responses (Bengtsson, 2016; Kleinheksel et al., 2020). Manifest content analysis was used because it captures specific meaning, rather than a researcher's interpretation of information, and is commonly used in surveys with open-ended questions (Alharthi et al., 2023; Chevance et al., 2020; Desroches et al., 2021). Open-ended responses were reviewed numerous times to ensure a high level of immersion in the data and to understand the responses and how they were situated within the overall survey. An initial set of codes were developed through familiarisation with the data, capturing key topics, ideas and patterns. These codes were then applied to the qualitative open-ended responses, capturing key ideas and creating condensed groups of information from the emerging commonalities and patterns presenting from the data (Bengtsson, 2016; Kleinheksel et al., 2020). This information was then reported to address the questions within the survey provided to respondents. The purpose and benefit of these responses were to provide contextual reference and detail to supplement the multiple-choice responses.

5.3.2 Findings and Interpretation

To provide a foundational understanding of treatment, a survey was disseminated to all jurisdictions in Australia to gain responses about programs that provide treatment to Aboriginal and Torres Strait Islander people who have sexually offended. This complemented studies 1 (systematic review) and 2 (meta-analysis) by gathering information from treatment programs directly that is not published and available in the literature. The findings and interpretation section thus provides an answer to research question six:

RQ6. Does treatment for Indigenous people [in Australia] who have sexually offended adhere to the fundamental principles of risk, need and responsivity?

The below section begins with important contextual information to understand the types of treatment programs within Australia, before situating the findings of study 3 within the risk, need and responsivity framework, and linking findings to the wider national and international literature. It then discusses information on attrition rates, an important element in within the responsivity principle, and whether treatment programs have conducted evaluations to understand their own effectiveness. Finally, study 3 ends with a crucial discussion on the urgent need to decolonise treatment in Australia based on findings discussed by participants. The sections below are as follows:



Unlike previous chapters, the results discussed in this section specifically pertain to Aboriginal and Torres Strait Islander people and sexual offender treatment programs within Australia. It is important to note that although the surveyed programs are inclusive of non-Indigenous people, survey respondents were explicitly informed prior to commencing the survey to only provide answers in relation to Aboriginal and Torres Strait Islander participants (see Appendix 6). Therefore, all information is in regard to Aboriginal and Torres Strait Islander participants within programs.

5.3.2.1 General Information

Gaining permission to conduct the survey, and locating the correct contact person, was a difficulty of this project. Those jurisdictions that did not provide approval were consequently not represented. Given most offender treatment programs are provided by Government Departments, responses were therefore curtailed. The survey was subsequently completed by a total of 12 participants from various jurisdictions within Australia and their responses were invaluable. It is important to note that respondents were representing their organisations, of which some had multiple services and satellite services operating throughout an entire jurisdiction. In other circumstances where the participation rate may look small, this was a full representation of treatment programs offered in the respective jurisdiction. Most of the responses were from South Australia (23.1%) and Queensland (23.1%), and the Australian Capital Territory (15.4%). There were no responses provided from Tasmania despite research and ethics approvals from the Tasmanian Prison Service to conduct the survey (see Table 5.1 for an overview). While percentages have been provided consistent with survey research, total numbers have been included so as not to conflate small numbers.

Table 5.1*Jurisdiction of Participating Organisations*

Location	<i>N</i>	%
South Australia	3	23.1
Queensland	3	23.1
Australian Capital Territory	2	15.4
Western Australia	1	7.7
Northern Territory	1	7.7
Victoria	1	7.7
New South Wales	1	7.7
Tasmania	0	0.0
Total	12	100.00

Treatment programs within organisations were generally designed for males who had sexually offended (58.3%, $n = 7$). However, there were treatment programs that were operational for males and females (41.7%, $n = 5$). The programs were generally designed for participants aged 18 years and over (58.3%, $n = 7$), although there was representation in the sample with programs that were specifically designed for young people between the ages of 10 and 17 years (33.3%, $n = 4$). One program included children as young as four. Although various Aboriginal and Torres Strait Islander groups and communities participated in the programs, the names of Aboriginal and Torres Strait Islander groups and communities are not provided to ensure confidentiality of these groups. Survey respondents indicated that the sexual offender treatment programs offered within their organisations were delivered often to participants.

Treatment programs were homogeneous in their inclusion of participants with varying sexual offences, predominantly designed for participants who had engaged in either a contact or non-contact sexual offence (72.7%, $n = 8$). Only three programs (27.3%) were specifically designed for people who had engaged in a contact offence, with no programs specifically designed for non-contact sexual offenders only. When investigating patterns in offence type,

survey respondents reported that the prior contact sexual offences that brought participants to treatment were primarily rape, sexual assault, indecent assault, sexual contact with children and harmful sexual behaviours (generally seen in programs designed for young people and children). Non-contact offences were reported to be possession of child exploitation material, soliciting children online, stalking, sexual harassment and voyeuristic offences. Respondents also reported that program participants presented to the service with non-sexual offences in addition to the sexual offence. These non-sexual offences centred around unlawful confinement, assault (common and aggravated) and other violent behaviours that occurred during the sexual assault of victims.

The organisations obtained program participants from various avenues. Respondents reported acquiring program participants who were incarcerated for their sexual offence (26.4%, $n = 7$), followed by self-referrals (19.2%, $n = 5$) and referrals from a court order or diversion program (15.4%, $n = 4$). Three respondents stated treatment programs designed for young people also came from referrals through respective educational departments. Almost all organisations were funded by the state or territory government (83.4%, $n = 10$). One program was jointly funded by their state or territory government and awarded grants (8.3%), and another charged a service fee to any person or external organisation making the referral (8.3%; see Appendix 16 for an overview of this information.)

5.3.2.2 Description of the Treatment Program

Respondents were asked to complete information regarding the treatment programs they provided to Aboriginal and Torres Strait Islander people who had sexually offended. This section of the survey focused on questions to understand the foundational elements in the development of treatment programs, the length and implementation elements of treatment programs, before going into sections on Aboriginal and Torres Strait Islander risk, need and responsivity, as well as methods of documentation and evaluation.

5.3.2.2.1 Foundational Elements In the Development of Treatment Programs

The survey opened with questions relating to the foundational elements of the treatment programs being administered. Almost all of the treatment programs were not specifically designed for the Aboriginal and Torres Strait Islander people receiving treatment (91.7%, $n = 11$; see Appendix 16 for a complete overview). Only one program had been specifically designed for Aboriginal and Torres Strait Islander people who had sexually offended. Ten of the treatment programs were developed from known programs (83.3%) from other jurisdictions in Australia and not specific to the Aboriginal or Torres Strait Islander populations where treatment was being provided. Four programs originated from jurisdictions outside of Australia, including three sourced from Canada and one utilising iterations of ‘international’ sexual offender treatment programs. Only two respondents reported operating a program that was developed from information specifically derived from Australia and New Zealand to meet the needs of Aboriginal and Torres Strait Islander people.

The theoretical framework of programs was predominantly derived from the risk, need and responsivity model but included elements of the Good Lives model. In a minority of instances, the Good Lives Model led the theoretical framework of programs. Nine respondents (75%) stated that individuals who assisted in the development of programs were also involved in administering treatment. Ten organisations had developed a program manual (83.3%) and seven had developed an assessment manual (58.3%). However, only three organisations had developed a training manual (25.0%) or a management manual (25.0%, $n = 3$) for those facilitating treatment. Moreover, it was common for respondents to report that the organisation and contents of the treatment programs were ‘somewhat’ structured (83.3%, $n = 10$). Two respondents (16.7%) indicated that the organisation and contents of programs was structured to ‘a great extent’.

Adhering to the program's manual and not changing program facilitators was identified by respondents to be an important characteristic of treatment implementation for ensuring Aboriginal and Torres Strait Islander participants benefit from the program. It was common for respondents to provide commentary such as 'Sticking to the program as it is written', 'Following the manual', and 'Consistency between staff facilitating'.

Having and adhering to a program manual has strong implications for consistency of treatment. However, this perspective from respondents deviates from the perspectives of influential and prominent scholars (Marshall, 2005, 2009; Marshall et al., 2002), who state that facilitators delivering treatment should move away from static manualised programs to ensure they are flexible to change, innovation and the integration of new and emerging knowledge, enhancing treatment's ability to address the principle of responsivity. Static programs can also result in attrition and poor treatment outcomes for the individuals, and may also adversely affect the treatment staff and the morale of other clients and lead to poor institutional support for programs (Howells & Day, 2007; McMurren & Theodosi, 2007). However, it is acknowledged that treatment programs require a foundational structure to ensure specific elements of the program are being adhered to and that treatment is progressing in a direction to ensure successful completion.

5.3.2.2.2 Length and Implementation Elements of Treatment Programs

Respondents were asked a range of questions to determine the duration and implementation methods of treatment for Aboriginal and Torres Strait Islander people. The length of treatment was reported as being between 26 to 52 weeks (approximately six months to one year) in most treatment programs. Only two respondents (16.7%) stated that treatment programs continued for more than 52 weeks. Four respondents (33.3%) indicated their treatment programs were fluid in the sense that they did not follow a prescribed timeframe.

Similarly, when asked about the required sessions for program participants, seven (58.3%) respondents indicated that it varied too significantly to provide a definitive answer. This was reported as being primarily because of treatment programs catering for the individualised needs of participants. Of those respondents providing this information, the number of sessions required varied considerably, ranging from 40 to 120 sessions. Session length was reported to be 1–2 hours (41.7%, $n = 5$), 3–5 hours (8.3%, $n = 1$) or 6–10 hours per week (50.0%, $n = 6$). Sessions were predominantly 2–3 hours each (58.3%, $n = 7$).

Half of the respondents reported their organisations treatment sessions designed to implement a mixture of both individual and group sessions (50.0%, $n = 6$); however, session types varied. Six organisational programs offered hybrid sessions that included individual and group treatment but, at the same time, had participants receiving individual-only or group-only treatment. Of those treatment programs using group sessions (25.0%, $n = 3$), the group size tended to include ten or more participants. Only three treatment programs (25.0%) included treatment sessions presided over by an Indigenous Elder or included an Indigenous stakeholder. Six treatment programs were conducted in prison (50.0%, $n = 6$), four in the community (33.3%, $n = 4$) and one was delivered in both prison and the community (8.3%). One program was delivered in a juvenile reform and community centre (8.3%).

5.3.2.3 Aboriginal and Torres Strait Islander Risk, Need and Responsivity

Risk, need and responsivity are important foundational elements of any treatment program targeting criminogenic issues. Given the centrality of the risk, need and responsivity principles to evidence-based practice, the next section discusses how these principles are adhered to among major organisations in Australia and how such adherence links to the wider national and international literature.

5.3.2.3.1 Adherence to the Risk Principle

Almost all organisations reported using a risk assessment instrument for Aboriginal and Torres Strait Islander participants attending treatment (91.7%, $n = 11$), with one organisation stating they do not use a risk assessment tool (and providing no further information). This suggests that almost all organisations are consistent with international standards by undertaking risk assessments prior to engagement of participants in treatment to ensure the correct level of treatment is provided (Hanson & Yates, 2013; Lovins et al., 2009; Taxman & Dezemmer, 2018). While one program had participants rated low to medium risk and another catered for all risk categories (low, medium and high), most respondents reported their organisations included Aboriginal and Torres Strait Islander people who were rated as either medium–high (63.6%, $n = 7$) or high risk (18.2%, $n = 2$) of reoffending. The high-risk rating, however, may be a consequence of organisations administering risk assessment tools that are not specifically designed for Aboriginal and Torres Strait Islander people (Adams et al., 2020; Perley-Robertson et al., 2019).

Criminological literature consistently shows that Indigenous people who have sexually offended exhibit more risk factors when compared with non-Indigenous people (Adams et al., 2020; Perley-Robertson et al., 2019), with Australian recidivism statistics for Aboriginal and Torres Strait Islander people presenting further concerns for the validity of risk assessment methods (ABS, 2022a, 2022b). There are common factors that influence offending and, in turn, risk among the general Australian population and Aboriginal and Torres Strait Islander people (e.g., alcohol or substance abuse, financial stress, family stress; Ferrante, 2013). However, Aboriginal and Torres Strait Islander people are confronted with additional factors that distinctly differ from non-Indigenous people. These include being from, or having a connection to, someone from the Stolen Generations (Dodson & Hunter, 2006); experiences of colonisation, oppression and transgenerational trauma (Lockwood et

al., 2018); as well as systematic racism, marginalisation and social disadvantage (Dudgeon et al., 2014; Shepherd et al., 2015).

Acknowledging the absence of any appropriate validated risk assessment tools for organisations use, respondents were asked which specific risk assessment instrument(s) are administered to program participants. The organisations noted using one or more risk assessment tools for Aboriginal and Torres Strait Islander participants, including Static-99/R (23.1%, $n = 4$), VRS-SO (23.1%, $n = 3$), as well as the Stable-2007, Assessment, Intervention and Moving On 3 (AIM-3) instrument, Risk for Sexual Violence Protocol (RSVP), Historical, Clinical and Risk Management 20 (HCR-20), J-SOAP-II and Estimate of Risk Adolescent Sex Offender Recidivism (ERASOR)—each at 7.7%, $n = 1$, respectively. The risk assessment tools noted by respondents are consistent with those used internationally (e.g., Static-99/R and the VRS-SO), and it is clear that that risk is measured utilising actuarial instruments specifically designed for people who had sexually offended as opposed to tools that are designed to predict an offender's risk more generally. The Static-99 and its revised version (Harris et al., 2003; Phenix et al., 2017) are currently one of the most widely used actuarial tools for measuring the level of risk for people who have sexually offended internationally (Sandbukt et al., 2021). As previously presented, this risk instrument has been empirically tested in various jurisdictions internationally and, albeit varying results, the literature is consistent in its positive reporting for predictive accuracy (Azizian et al., 2022; Barbaree et al., 2001; De Vogel et al., 2004; Endrass et al., 2009; Gonçalves et al., 2020; Hanson & Thornton, 2000; Långström, 2004; Reeves et al., 2018; Rettenberger et al., 2013; Sandbukt et al., 2021; Sjöstedt & Långström, 2001).

Although risk instruments such as the Static-99 and Static-99R may be seen as 'ethnically neutral' and 'universal', this view may overlook genuine cultural differences between Aboriginal and Torres Strait Islander people and non-Indigenous Australians

(Shepherd & Lewis-Fernandez, 2016). Positive results from the Static-99 and Static-99/R have yet to be replicated with Aboriginal and Torres Strait Islander people—or other Indigenous or ethnic groups—on a larger international scale. Rather, studies have reported predictive accuracy by the Static-99 and Static-99R for Indigenous people and ethnic cultural groups to be no more than what could be assumed by chance (Boccaccini et al., 2017; Hanson, Lunetta, et al., 2014; Långström, 2004; Lee & Hanson, 2017; Lee et al., 2020; Leguízamo et al., 2017). Risk assessment tools have been criticised for their insensitivity to the unique risk profiles of Indigenous people and other minority ethnic groups (Hsu et al., 2010). No information was provided by respondents on how the use of generic sexual offender risk instruments for Aboriginal and Torres Strait Islander people may affect dosage. As treatment providers can only use the tools provided to them, it is important that there is a level of urgency to the validation of risk assessment tools with Indigenous populations

Given no tools in use were specifically designed for Aboriginal and Torres Strait Islander people, it is important that organisations interpret the results of such tools with caution. This is not an unexpected finding given Allan et al. (2019) have stated that their earlier work (e.g., Allan et al., 2006) is the only published Australian study to develop a risk assessment tool unique to Aboriginal people who had sexually offended. Importantly, these authors identified that Aboriginal sexual recidivists form a distinct group, with the predictors best distinguishing sexual recidivists from non-recidivists to be (i) poor coping skills, (ii) unfeasible release plans and (iii) unrealistic long-term goals (informing the ‘3-predictor model’; see Allan et al., 2006).

Other researchers have also stated that the experiences of colonisation, oppression and transgenerational trauma have created a distinct set of circumstances for Aboriginal and Torres Strait Islander people that are not adequately captured in existing risk assessment tools (Lockwood et al., 2018). In addition, factors such as systematic racism, marginalisation,

social disadvantage and feelings of powerlessness contribute to Indigenous justice system involvement (Dudgeon et al., 2014; Shepherd et al., 2015) a view supported by practitioners. This means that consideration is needed as to how Indigenous-specific factors are incorporated into current risk assessment tools (Lockwood et al., 2018). More recently, Allan et al. (2021) examined the views of practitioners who use various risk assessment tools with Aboriginal and Torres Strait Islander people who had sexually offended and found they believed that current risk assessment tools do not allow for enough consideration of individual and contextual factors. The authors made the recommendation that cultural consultants are engaged and that cultural guidelines are included to give treatment facilitators using risk assessment tools a more adequate understanding of the Aboriginal and Torres Strait Islander people they assess (Allan et al., 2021).

It is, therefore, evident that Australian organisations providing treatment to Aboriginal and Torres Strait Islander people who have sexually offended need to review the instruments currently utilised to assess risk to ensure that they are adequate for the Aboriginal and Torres Strait Islander community for whom they are intended to predict risk. Risk tools should factor in cultural differences between Aboriginal and Torres Strait Islander people and non-Indigenous people to ensure a ‘one-size-fits-all’ approach is not implemented. Given few studies have examined the predictive accuracy of these risk assessment instruments in Australia (Allan et al., 2006; Smallbone & Rallings, 2013; Spiranovic, 2012) and forensic experts have raised concerns about their implementation for Indigenous men (Allan, 2015, 2018, 2020; Allan et al., 2021), the Australian criminal justice system should interpret actuarial results with caution for Aboriginal and Torres Strait Islander people so risk is not elevated. Wider research is needed to develop tools specific to measuring the risk of sexual recidivism among Aboriginal and Torres Strait Islander people as a matter of urgency.

5.3.2.3.2 Adherence to the Need Principle

All treatment programs had a needs assessment tool that were used but not uniquely designed for Aboriginal and Torres Strait Islander participants. However, in five organisations (41.7%), the risk assessment tool was also used to perform the needs assessment of Aboriginal and Torres Strait Islander participants (e.g., VRS-SO, Static-99/R and Stable-2007). Few respondents discussed other needs assessment tools that were implemented for primarily young Aboriginal and Torres Strait Islander participants (for example the Trauma Symptom Checklist for Children, Child Depression Inventory, Millon Adolescent Clinical Inventory, Trauma Symptom Checklist, Youth Risk Screen, General Sexual Knowledge Questionnaire and Predictive Early Assessment of Reading and Language). One respondent indicated their organisation used an internally developed structured tool, another respondent stated their program implemented a general intake assessment as per program requirements and a final respondent reported using an assessment specific to the program using the integrated theory of sexual offending.

It is important that the criminogenic needs of participants are addressed in treatment and that treatment should focus on those characteristics that are conceptually and empirically associated with persistence of crime (Hanson et al., 2009; Hanson & Morton-Bourgon, 2009; Hanson & Yates, 2013). It is only when characteristics associated with recidivism are targeted that treatment program will be effective in reducing sexual recidivism. However, there was limited information on whether the needs assessments used were either specifically designed for Aboriginal and Torres Strait Islander people or take into consideration the cultural and social differences between Aboriginal and Torres Strait Islander and non-Indigenous people. Nevertheless, it is important to have evidence-based needs assessment tools that investigate the specific and unique requirements of Aboriginal and Torres Strait Islander people, distinguishing them from non-Indigenous cohorts.

Overall, two-thirds of respondents (66.7%; $n = 8$) believed their organisations had treatment programs that were tailored to the needs, learning styles and abilities of Aboriginal and Torres Strait Islander participants. The remaining one-third somewhat agreed (33.3%; $n = 4$) and no participants disagreed. Differences between the needs profiles of Aboriginal and Torres Strait Islander people and non-Indigenous people have been documented in the literature. Butcher et al. (2019) found participating in education and leisure activities to be a need for all young people who had offended, regardless of Indigeneity. However, Aboriginal young people were more likely to reside in regional areas where a lack of infrastructure, programming and limited access to transportation presented barriers to addressing these needs (Butcher et al., 2019). Dellar et al. (2022) stated criminogenic needs such as education, recreation and developing positive peer relationships disregard important cultural differences for Aboriginal young people residing in regional areas. Needs assessments for Aboriginal and Torres Strait Islander people should focus on elements of cultural strength when conducting assessments (Ferrante, 2013). More specifically, as acknowledged by Ruge (2006), an important value for one culture may not be important for another and therefore, structurally, some needs assessment tools are unable to address the needs of Aboriginal and Torres Strait Islander people when designed for non-Indigenous populations.

Despite these findings, there was limited information provided on the needs of Aboriginal and Torres Strait Islander participants—potentially a result of these needs being distinct in nature. Given the significant differences in the needs of Aboriginal and Torres Strait Islander and non-Indigenous sexual offenders (Ellerby & MacPherson, 2002; Helmus et al., 2012; Shepherd et al., 2014), more research is required into identifying common needs from treatment amongst Aboriginal and Torres Strait Islander people. Research needs to identify unique and individual criminogenic needs that are related to offending for Aboriginal and Torres Strait Islander people, and those needs need to be specifically addressed in

treatment responsivity (Shepherd et al., 2014). Such research would address this gap in the literature and also assist in developing treatment programs that target the criminogenic needs of Aboriginal and Torres Strait Islander people who have sexually offended. However, research needs to be driven by Aboriginal and Torres Strait Islander leaders and scholars and should take into account historical events that have affected generations of Aboriginal and Torres Strait Islander people and communities. It is further important that research focuses on the different cultural contexts between different Aboriginal and Torres Strait Islander groups and non-Indigenous people that elevate risk on assessment tools.

5.3.2.3.3 Adherence to the Responsivity Principle

To understand responsivity, respondents were asked to state the type of treatment they provided to Aboriginal and Torres Strait Islander people presenting at their organisations programs. The treatment programs generally used varying therapeutic interventions to alter the offending trajectories of program participants. All treatment programs used principles of CBT ($n = 12$), with most also reporting the use of individualised treatment methods (66.7%, $n = 8$). Culturally relevant treatment, MST and other psychosocial interventions were also reported in half of the treatment programs ($n = 6$). The ‘other psychosocial interventions’ centred around psycho-educational opportunities, providing support and training to families and caregivers, as well as the development of general healthy relationships. No respondents reported using non-contemporary methods of surgical castration or medical interventions to treat Aboriginal and Torres Strait Islander people who had sexually offended.

Treatment programs were largely reported by respondents to be developed from programs outside of Australia and all programs were derived from the fundamental principles of CBT. Only one organisation had a treatment program that was specifically designed for Aboriginal and Torres Strait Islander people who had sexually offended, with half of programs noting aspects of culture were integrated with the Western paradigms. It is critically

important that organisations providing treatment to Aboriginal and Torres Strait Islander people ensure programs are not solely derived from Western methods of therapeutic practice, but rather that they integrate aspects of culture and cultural healing that are of relevance to the Aboriginal and Torres Strait Islander people presenting at treatment. There is well documented evidence in Australia that programs derived from Western methods (such as CBT and MST) have different outcomes for Aboriginal and Torres Strait Islander and non-Indigenous participants (Day, 2003; Macgregor, 2008). It is posited that for treatment to have maximum positive outcomes, culturally relevant programs should replace generic contemporary Western approaches (Gutierrez et al., 2018). Indeed, treatment programs need to be developed in accordance with the Aboriginal and Torres Strait Islander community where treatment is taking place. The majority of respondents reported that their organisations treatment programs were derived from known programs. These known programs were from other jurisdictions in Australia and Canada, or used iterations of international sexual offender programs.

Only two of the participants reported that their organisation used information drawn from Australia and New Zealand to develop their programs and meet the needs of Aboriginal and Torres Strait Islander people. As mentioned, only half of the organisations ($n = 6$) indicated including culturally relevant elements within treatments provided to Aboriginal and Torres Strait Islander people. These respondents were asked to state the specific components of treatment that were designed for Aboriginal and Torres Strait Islander people and that were not related to contemporary Western practices of therapeutic intervention. The responses among respondents varied; however, approaches to culturally sensitive methods of treatment centred around Aboriginal liaison officers being consulted when Aboriginal people are referred to treatment to assist with culturally appropriate therapeutic case plans. In addition, respondents also cited Aboriginal and Torres Strait Islander participants' connection to

Indigenous mentors and re-connection to culture (e.g., through the use of yarning circles with family members and key stakeholders to provide a supportive network around the participant in a structured and culturally focused manner). Not many respondents stated treatment modules mimicked cultural processes for reconciliation, problem-solving and healing. Additional elements included permitting greater flexibility to permit Aboriginal and Torres Strait Islander participants to pause treatment to attend to cultural responsibilities and cultural processes (e.g., grief and loss).

Treatment is mostly effective when synergy is formed between the program and the participant, thus satisfying the principle of responsivity (Andrews & Bonta, 2010). To achieve this synergy, treatment must adhere to the Aboriginal and Torres Strait Islander participants' intra-individual characteristics, particularly when there are strong ties to culture (Andrews & Bonta, 2010; Pooley, 2020). However, when ties to culture have diminished, it is beneficial to ensure re-connection to culture is an element of treatment (Pruce, 2010; Shepherd et al., 2018). Respondents indicated that although some treatment programs incorporated aspects of culture, the fundamental framework of treatment was not specifically designed to respond to the needs of Aboriginal and Torres Strait Islander participants.

Five programs were delivered by psychologists or social workers in conjunction with Aboriginal or Torres Strait Islander staff or Elders (41.7%). The remaining five treatment programs were generally delivered by psychologists or social workers (41.7%), with two programs delivered by corrective services staff within the prison (16.6%). It was an expectation that non-Indigenous staff had engaged in cultural competency training, some respondents detailed how Aboriginal or Torres Strait Islander staff were employed to guide the non-Indigenous team. One respondent outlined their organisation's cultural framework:

Every site has one or two Aboriginal identified positions for clinicians to guide the whole team through cultural consultation and to be a resource for Aboriginal clients,

family and mob. The service network is required to work within a framework in which Aboriginal team members provide cultural consultation to the teams and to families and other services. There is a structure of Clinical and Cultural advice to all the teams and Aboriginal clinicians from a team of Clinical Advisors including an Aboriginal Clinical Advisor. All teams engage in cultural supervision; Clinicians also receive cultural supervision 1–1. Aboriginal clinicians are employed on a development pathway if they do not hold tertiary qualification. The cultural care is individually planned and services are delivered by outreach, which results in [the] same level of service engagement and outcomes as non-Aboriginal centre-based service recipients.

It is important that program staff consult with Aboriginal or Torres Strait Islander advisors, Elders and family to ensure non-Indigenous facilitators are delivering treatment in a manner that will produce change for Aboriginal and Torres Strait Islander participants (Rayment-McHugh et al., 2022). Treatment provided to Aboriginal and Torres Strait Islander people should be Indigenous-led to ensure there is cultural understanding and sensitivity surrounding the delivering of programs (Gutierrez et al., 2018; Howell, 2003; Mason, 2000; Quantick, 2018; Rayment-McHugh et al., 2022). As stated by Gutierrez et al. (2018), Indigenous staff who assist in the development and delivery of treatment are more likely to have a deeper understanding of the cultural beliefs and values within Indigenous communities, as well as other cultural nuances. This should be interpreted as a crucial element for all treatment programs attempting to alter offending trajectories. In addition, Indigenous staff are able to assist Indigenous participants overcome barriers through the development of rapport and trust, as well as empower Indigenous clients to take responsibility for their offending behaviours (Howell, 2014; Lees, 2001; Trevethan et al., 2004; Trudgett et al., 2024). Finally, Indigenous staff can collaborate and foster strong

partnerships with Indigenous communities and community leaders. Taking a collaborative approach can ensure that treatment programs are embedded within the broader cultural context and support Aboriginal and Torres Strait Islander participants post-therapeutic journey. Engaging Aboriginal and Torres Strait Islander staff, advisors or external community members is an important step in addressing responsiveness for Aboriginal and Torres Strait Islander peoples. However, services must go beyond this initial engagement and move towards the integration and application of Indigenous knowledge at all stages, rather than solely seeking guidance.

Despite treatment containing some cultural aspects and engagement from Aboriginal and Torres Strait Islander staff or stakeholders, respondents generally believed the goals of treatment were only being partially met by Aboriginal and Torres Strait Islander participants within their organisations (83.2%, $n = 10$). One respondent stated the goals were met perfectly (8.4%) and one stated that the goals of the treatment program were not met at all for Aboriginal and Torres Strait Islander participants (8.4%). Respondents believed the goals of treatment were more inclined to be achieved when there was ‘Connection, therapeutic rapport with individuals engaged’, as well as:

Adherence to best-practice principles, both in terms of program design and program delivery; ensuring culturally appropriate content and delivery of content; continuing to seek regular consultation/feedback from First Nations Elders & community members.

Respondents also perceived that Aboriginal and Torres Strait Islander participants were successful in achieving the goals of treatment when they exhibited certain characteristics. These were summarised as ‘A willingness to engage and an understanding that this specific counselling/therapy is different to general counselling. Transparency is important’, as well as a ‘willingness to change and their belief that they can change’. In

addition, the participant attending treatment needed to be able to engage in self-reflection practices and have victim empathy to benefit from treatment—characteristics that are not specific to Aboriginal and Torres Strait Islander people. One respondent stated that participants needed to ‘Turn up’ to treatment. Although this was a small response to the question, it opens room for a more detailed discussion on Aboriginal and Torres Strait Islander participant attrition. Not only do participants need to attend treatment, but they must also be mentally engaged, willing to put in the work and be challenged. Anticipating this response from my earlier research (Finney et al., n.d) it was fitting that respondents were asked through open ended questions, to comment on their opinions the reasons some Aboriginal and Torres Strait Islander participants dropped out or refused to engage in the respective programs.

5.3.2.4 Aboriginal and Torres Strait Islander Treatment Attrition

Attrition is a concern of treatment programs internationally. Therefore, respondents were asked to comment on Aboriginal and Torres Strait Islander people who did not successfully complete their therapeutic journey and standout reasons for this. Respondents estimated the number of Aboriginal and Torres Strait Islander dropouts during the iteration of programs to range between 5% and 27% ($M = 10.22\%$). Responses were similar for Aboriginal and Torres Strait Islander people who refused to engage in treatment, ranging from 5% to 30% ($M = 7.56\%$). Finally, respondents ranged the number of program participants who do not engage for any other reason to be between 5% and 40% ($M = 11.67\%$). Attrition from treatment was explained to be for several reasons, which generally included ‘Failure to engage’, ‘Did not consider treatment to be relevant to them’, ‘Denial of offending, didn’t think it would help, thought they would be granted release’ and ‘Denial of offending or not interested in addressing their offending behaviour due to time elapsed since the incident(s)’.

These findings are of concern given dropouts of sexual offender treatment programs have consistently shown to be more likely to reoffend in comparison with treatment and untreated offenders (Carl & Lösel, 2021; Edwards & Beech, 2004; Hanson & Bussiere, 1998; Hanson et al., 2002; Marques, 1999; Marques et al., 1994; Seager et al., 2004; Zimring, 2009) and have higher risk scores on actuarial instruments designed to assess recidivism (Olver et al., 2011). Therefore, although treatment should focus on general responsivity (delivered in a manner conducive to change), it should also focus on specific responsivity (individual variables that influence treatment engagement and progress, such as cultural background; Andrews & Bonta, 2010; Andrews & Dowden, 2007; Bonta & Andrews, 2007). Attrition has been linked to the failure of programs to adequately accommodate specific responsivity factors in the targeted sample of sexual and non-sexual offenders (Beyko & Wong, 2005; Wormith & Olver, 2002). Given treatment failure has a strong correlation to recidivism, an enhancement of service delivery may improve these outcomes.

A few respondents identified the personal behaviours of participants—particularly those in the prison environment—as being the reason for attrition (or being asked to leave): ‘They didn’t want to complete, they were asked to leave because of poor behaviour’, ‘Institutional substance use (so had to be moved from the prison), poor custodial behaviour’ and ‘Custodial incidents that resulted in security classification upgrades and no longer being able to attend the sector in which programs are facilitated’.

In the prison environment, not all attrition was attributable to a personal inability or lack of desire to engage. One respondent stated that Aboriginal and Torres Strait Islander participants often dropped out of treatment because ‘They found the therapy difficult’. Within prison, it was seen that treatment was difficult for Aboriginal and Torres Strait Islander people who would refuse to engage because they did not wish to partake in group therapy. This is evident in the following excerpts: ‘Refusal to engage in a group program’, ‘Not

wanting to discuss sexual offending in a group setting’ and ‘Some would rather have individual therapy’.

Nine organisations had programs that were either group-only treatment or a hybrid of individual and group treatment. Group treatment generally included ten or more participants in a session. Given the sensitivity of questions asked, group therapy can have a negative shaming effect on Aboriginal and Torres Strait Islander people who have sexually offended (Perales et al., 2015; Richards et al., 2020). Because there has been little investigation of the difficulties of discussing sex in sexual offender treatment programs, it is important to draw from the scholarly work of other disciplines. Canuto et al. (2018) reported that Aboriginal men attending health care services in Australia felt more comfortable discussing health issues with male doctors. Adams et al. (2013) found the predominance of female health professionals a barrier for Aboriginal men seeking sexual health services. These findings resonate with reports from respondents in the survey stating that attrition can result from discussions in group therapy which are usually facilitated by female practitioners. Many cultures have similar taboos of discussing ‘personal’ issues with members of the opposite sex, suggesting that this finding should be considered more widely in multicultural societies (Evans et al., 2000).

Dawson et al. (2023) stated a need for sexual health services in Australia to cater for Aboriginal and Torres Strait Islander ‘Men’s Business’, highlighting that healthcare services need to provide culturally appropriate pathways to increase service access for Aboriginal and Torres Strait Islander men. Group therapy can, therefore, create a barrier to the successful completion of treatment, particularly for younger Aboriginal and Torres Strait Islander men with strong cultural ties and traditions. Once Aboriginal and Torres Strait Islander men reach a suitable age, they join the men in their community to start their tribal maturity initiation known as ‘Men’s Business’ (Queensland Government, 2022). Men’s Business is not

documented well in the literature because it is a sacred practice that varies extensively between communities. However, some Aboriginal and Torres Strait Islander men may not have yet been provided the opportunity to engage in Men's Business as a result of their young age or disruptions from imprisonment. To ensure responsiveness, treatment should be implemented or guided by Aboriginal or Torres Strait Islander people or Elders to ensure that the intricate cultural aspects that are not understood well by non-Indigenous facilitators are effectively adhered to.

Finally, respondents provided additional information on their perceptions of why Aboriginal and Torres Strait Islander people did not complete treatment. These issues tended to centre around the common difficulties of conducting treatment within a prison environment: 'Not enough time in prison to complete', 'Sentence length', 'Accessibility from rural and remote areas', 'Learning difficulties, substance use, motivation, mental health' and 'In some instance individuals' residential placements changed and they moved away—interstate'.

The delivery of a sexual offender treatment program within a prison environment can be a challenging task. Recently, Rayment-McHugh et al. (2022) interviewed 12 Australian correctional staff delivering a sexual offender treatment program within prison. They found that custodial processes (lockdowns, incidents and industrial action) and custodial culture (negative attitudes from correctional staff towards those who had committed a sexual offence) made delivering effective treatment difficult. These findings from Rayment-McHugh et al. (2022) align with additional comments provided by respondents: 'The prison setting is quite a difficult environment to undergo therapy in. Lower security prisons are probably better for this work than the higher security prisons'. To counteract the challenges of delivering sexual offender treatment to Aboriginal and Torres Strait Islander people within the prison environment, respondents suggested the following was required: 'A therapeutic

environment where possible—confidential, creating safety in the room’, ‘Feeling safe and lack of external distractions’ and ‘[Environment] needs to be discreet, safe and predictable’.

It was further noted that:

The program room should be set up for each session to maximise engagement and emphasise a therapeutic (as opposed to classroom-like, or prison-like) atmosphere.

Wherever possible, this should involve everyone sitting in a circle rather than sitting in rows with ‘teachers’ (facilitators) up the front.

Blagden et al. (2016) have noted that a positive custodial environment is required for prisoners receiving treatment for sexual offending to feel safe and have the ability to work through problems and contemplate change. To conclude, one respondent stated staff need to have a strong skillset, and another respondent suggested that facilitators need to appropriately challenge and question the evidence-based therapeutic interventions that are being implemented for Aboriginal and Torres Strait Islander people.

To summarise, it is imperative that Australian standards for the treatment of Aboriginal and Torres Strait Islander people who have sexually offended are increased. It is acknowledged that, in some jurisdictions, the number of Aboriginal and Torres Strait Islander people who have engaged in a sexual offence that warrants treatment is too few to require the development of an ‘Indigenous-specific’ program. At a minimum, programs should include elements of cultural sensitivity and ensure culture is blended with Western methods of contemporary practice. However, this should be a temporary fix as it has become evident through this project in consultation with the wider literature that treatment programs in Australia require a redesign through the decolonisation of current practices and the development of programs through an Aboriginal and Torres Strait Islander lens. Such a lens should be built on Aboriginal and Torres Strait Islander knowledge, needs and solutions.

5.3.2.5 Documentation and Evaluation

Respondents answered a series of questions in relation to their documentation of treatment evaluations. Here, respondents were asked to provide either information directly from the evaluation (or the location of the evaluation for the retrieval of this information) or estimates according to their extensive knowledge of the treatment program where an evaluation had not been completed. Only one respondent reported that the program they facilitated had conducted an evaluation of services. This evaluation has already been identified and included in the systematic review (study 1) and meta-analysis (study 2). The remaining organisations either had an evaluation currently running (33.3%, $n = 4$), an evaluation planned but not currently running (33.3%, $n = 4$) or no formal evaluation planned (25.0%, $n = 3$). The respondents who stated an evaluation was planned but had not been conducted were asked to the best of their knowledge, to provide a response explaining why an evaluation had not yet occurred. No respondents provided an answer to this question, which could be expected given that evaluations are usually organised by the organisation or funding bodies rather than individual facilitators. Respondents who answered that there was no evaluation planned were asked to provide an explanation for this lack (i.e., no funding, it is a new program). Only one respondent stated that an evaluation had not been planned because there were no resources to conduct the evaluation.

As expected, evaluations that had been completed or were in session were conducted by an internal unit within the organisation (60.0%, $n = 3$). One respondent indicated the organisation had engaged with an external provider (an academic institution) to conduct an independent evaluation, and one organisation had the program developers conducting the evaluation (Appendix 17 provides an overview of evaluation information). The idea that evaluations were being conducted by an internal unit or the developer of the program raises concerns given the inherited biases such an approach can present. There is the possibility that

individuals or organisations affiliated with the treatment program may be reluctant to report negative results and may, rather, selectively analyse or publish outcomes that are more favourable. In addition to this, affiliation with the program can enhance treatment integrity, which results in inflated results because stakeholders are more invested to ensure a higher standard of treatment implementation. For example, in their meta-analysis of sexual offender treatment programs, Schmucker and Lösel (2017) found that three-quarters of studies reporting positive indicators of treatment integrity came from authors who had affiliations with the respective program. Organisations should, therefore, question the ethics of treatment evaluation and set high standards where external units with no affiliations, such as academic institutions or independent research organisations, evaluate programs independently. This independence will reduce bias and permit a more accurate interpretation of the program's effectiveness and permit continual improvement, a particularly important element given the seriousness of sexual offending for victims, their families and society more broadly, along with the fiscal costs associated with the criminal justice system.

To understand the types of evaluations being conducted, respondents were asked about their organisations methodological approach to research. Designs varied with respondents reportedly using either a process of statistically matching participants, a pre- and post-comparison or a mixed methodology design inclusive of both quantitative and qualitative methods. Some respondents reported implementing common outcome measures seen in research internationally: sexual recidivism (30.8%, $n = 4$), violent recidivism (15.4%, $n = 2$) and non-sexual and non-violent recidivism (23.1%, $n = 3$). However, some respondents were choosing to use a more contemporary approach for ascertaining the effectiveness of treatment for Aboriginal and Torres Strait Islander people. These approaches included psychological measures (15.4%, $n = 2$) and other behavioural measures (15.4%, $n = 2$).

It was positive to note that two organisations are moving beyond criminal justice data (e.g., arrest and charge information) and towards other psycho-metric methods of understanding treatment effectiveness. It is important that evaluators and researchers move away from reliance on official criminal justice data for understanding treatment effectiveness given the implications and biases surrounding the over-policing of Indigenous communities (Alberton et al., 2023; Feerick, 2004; G. O'Brien, 2021). Therefore, it is more fitting that psychological and behavioural measures of efficacy are implemented in conjunction with criminal justice data. Such an approach will assist in providing a 'true' representation of treatment effectiveness for Indigenous people. This is an important element given respondents communicated that mental health and behavioural issues were common barriers to treatment completion for Aboriginal and Torres Strait Islander participants.

In light of these findings, and to summarise, Australian organisations providing treatment to Aboriginal and Torres Strait Islander people who have sexually offended must continuously progress and move towards best-practice approaches. However, best-practice approaches can only be established through evaluations of treatment programs that are also completed through an Indigenous-lens. Given treatment failure has a strong correlation to recidivism, an enhancement of service delivery may improve these outcomes. Organisations must ensure their treatment programs are not only evaluated to understand effectiveness for Aboriginal and Torres Strait Islander clients, but ensure the methodical approaches implemented will not cause indirect biases within the outcomes. There are clear challenges for organisations in Australia to ensure their programs are effective. Nonetheless, given the severity of sexual offences for victims and the wider community, it is imperative these challenges are faced head-on. Only when empirical independent evaluations of treatment programs are undertaken can there be a more comprehensive understanding of a program's

ability to reduce recidivism and provide a more definitive conclusion regarding the effects of treatment methods.

5.3.2.6 Rejecting the One-Size-Fits All Model Through the Decolonisation of Sexual Offender Treatment Programs in Australia

The third and final study in this thesis moves away from examining published literature to surveying treatment organisations and giving these organisations a voice for the purposes of understanding treatment for Aboriginal and Torres Strait people. Although not specifically alluded to by respondents, the results present concern that the field—both treatment providers and academics—in partnership with Aboriginal and Torres Strait Islander people and organisations, needs to improve. These concerns specifically relate to:

1. Risk assessment tools (the foundation for understanding treatment dosage for Aboriginal and Torres Strait Islander people) that are not designed for Aboriginal and Torres Strait Islander people. Organisations cannot assume a Western-developed actuarial instrument that predicts risk for a non-Indigenous individual in metropolitan Canada can also adequately predict risk for an Aboriginal person in remote Western Australia.
2. Needs assessment tools (the foundation for understanding how treatment should respond to the specific needs of Aboriginal and Torres Strait Islander people) that are not designed for Aboriginal and Torres Strait Islander people.
3. Responsivity. As it is named, responsivity means that programs should be responsive to the levels of risk and the needs of Aboriginal and Torres Strait Islander people presenting at treatment and should address offending behaviour via treatment designed specifically for Aboriginal and Torres Strait Islander people. However, only one organisation had a program specifically developed for Aboriginal and Torres

Strait Islander people who have sexually offended, with five including only ‘some’ aspect of culture.

4. A lack of evaluation of effectiveness. Only one organisation had engaged in and completed an evaluation of their treatment program to understand its effectiveness for Aboriginal and Torres Strait Islander people. Those who were planning on conducting an evaluation had planned to have either an internal unit or the program developers conduct the evaluation, which can result in biased outcomes. Given the lack of evaluations, there is limited evidence as to whether the treatment provided to Aboriginal and Torres Strait Islander people is effective in reducing sexual recidivism or, more concerningly, causing harm to Aboriginal or Torres Strait Islander people.

Few respondents voice their belief that Australia is only in the very early stages of trying to understand the rehabilitation of Aboriginal and Torres Strait Islander people:

I think we are in the very early stages of trying to understand this. My impression is that sexual offending in this group sometimes takes place in a wider context of family and domestic violence, in which case, this wider context needs to be taken into account.

Others acknowledged ways they believed their organisations could enhance treatment for Aboriginal and Torres Strait Islander people who have sexually offended:

I feel it is important to have a culturally appropriate therapeutic case plan that is developed with consultation with specific community Elders that is workable. Not to set individuals up to fail.

And,

I am not sure that I am equipped to address this question fully, but rather reflect that we have a lot of work to do with partner organisations, elders and communities to better understand the needs of young First Nations people engaging in harmful sexual

behaviour. We would need to undertake a co-design element of the program for cultural safety, which due to its relative infancy is yet to be addressed in a full and meaningful way.

However, it was also recognised that there were difficulties identifying adequate external Indigenous services providers:

In [de-identified] it feels like service providers often develop stereotypes of men convicted of sexual offences and parallel attitudes about Indigenous [people/men].

When a service provider has to provide support for an Indigenous man convicted of sexual offences poor practices are employed. Well. That is a generalisation but I often am very frustrated by services providers who are not culturally sensitive and with understanding of support for men convicted of sexual offences. Those Indigenous services whom I have had contact have been willing and open to working with us.

Unfortunately, many of those services are not funded for liaison and their services are stretched. There are many factors (barriers?!) that actually do not stop greater collaboration. Maybe it's about complacency.

To enhance treatment approaches there needs to be wider recognition that Aboriginal and Torres Strait Islander people and non-Indigenous people do not enter treatment on an equal footing because systematic inequities and historical factors of colonisation and intergenerational trauma contribute to disparate experiences and outcomes between the two cohorts. The differences between Aboriginal and Torres Strait Islander people and non-Indigenous were alluded to by one respondent, who noted that these factors needed to be taken into consideration in the future of rehabilitation:

Carefully consider shame, cultural support, gender of facilitators as potentially impacting on disclosures, impact of colonisation/systemic racism on working with Aboriginal men within the justice system, consideration of family dynamics and

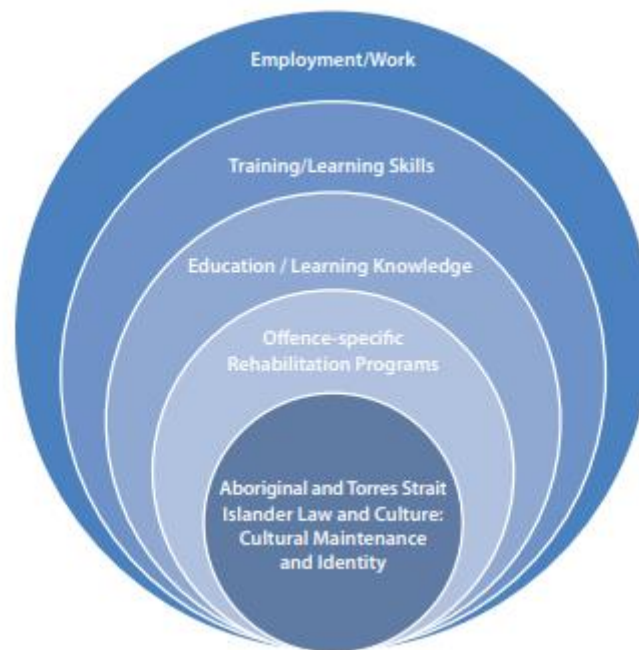
experiences of stolen generation, children being taken into care, role of social workers within government systems ...

Given these findings, it is clearly not enough to integrate culture into treatment programs to ensure they are suitable for Aboriginal and Torres Strait Islander people. This should, rather, be used as a temporary measure while organisations work towards decolonising sexual offender treatment programs for Aboriginal and Torres Strait Islander people. Decolonising sexual offender treatment programs refers to critically examining and challenging the Western-centric frameworks and paradigms that dominate current programs and limit outcomes for Aboriginal and Torres Strait Islander people, along with addressing the ongoing effects of colonisation that are evident in treatment practices (Blagg & Anthony, 2019; Cunneen, 2022; Stretton Institute, 2023). That is, it is necessary to demolish the current state of treatment programs and re-develop sexual offender programs that are Indigenous-led and culturally appropriate at all stages of the risk, need and responsivity model, as well as both respectful of and grounded in Aboriginal and Torres Strait Islander knowledge, values and practices.

Hovane et al. (2014) has communicated that a rehabilitation model for Aboriginal and Torres Strait Islander offenders should diverge from the current state of treatment and be grounded in a holistic worldview that acknowledges the interconnectedness of all living and inanimate entities. This model (see Figure 5.1) should be built on a broad framework of Aboriginal and Torres Strait Islander cultural principles that can be adapted to reflect local cultural contexts. Crucially, it must also incorporate the behavioural standards established by Aboriginal law and cultural practices (Hovane et al., 2014).

Figure 5.1

A Model of Aboriginal Offender Rehabilitation



Source: Hovane et al. (2020). Aboriginal Offender Rehabilitation Programs.

Aboriginal and Torres Strait Islander people should be provided agency in the leadership, design and implementation of sexual offender treatment programs that involve Aboriginal and Torres Strait Islander people. Specifically, with reference to decolonising treatment programs, Aboriginal and Torres Strait Islander community leaders or Elders should lead the development of treatment programs with the assistance of organisations to ensure programs align with cultural values and practices. Justification for Aboriginal and Torres Strait Islander leadership centres on the need to encompass Indigenous understandings of harm, justice and accountability that differ from non-Indigenous perspectives (Blagg & Anthony, 2019; Cunneen, 2022; Hovane et al., 2014). Self-determination in the making of decisions about justice and rehabilitation within an Aboriginal or Torres Strait Islander cultural framework is an additional important element in the decolonisation process (Porter et al., 2017). A new decolonisation approach would, therefore, ensure the development of

Aboriginal and Torres Strait Islander-specific programs to address offending and healing that afford Aboriginal and Torres Strait Islander people a sense of self-determination and ownership.

5.4 Limitations

As with all research, this study is not without limitations. This study utilised self-reported information from individuals in organisations that—given these individuals’ perceptions and experiences of the organisation—may have affected some of the results. To counteract this limitation as much as possible, organisations were asked to have their most senior individual who was actively involved in treatment complete the survey. This approach was chosen to afford more accuracy in the estimation of results and insights into the individual programs. However, because the survey was designed with confidentiality in mind, it cannot be confirmed whether the most senior individual within the organisation completed the survey. Moreover, best efforts were made to include a total representative sample of organisations by completing research and ethics applications for all states and territories in Australia. Despite achieving full representation in some jurisdictions, Tasmania provided research approval but did not complete the survey. It should be noted that Tasmania has one sexual offender treatment program offered to Aboriginal and Torres Strait Islander people. Further, inclusion of all jurisdictional Departments of Justice/Corrections would increase knowledge as most treatment is provided by those governmental agencies and WA, NSW and Victoria are missing in this current project.

5.5 Study 3 Summary

Study three is the first project in Australia to provide a map of current practices used in treatment for Aboriginal and Torres Strait Islander people who have sexually offended from a sample of treatment service providers. A survey approach was implemented, gaining information from a sample of organisations providing treatment to Aboriginal and Torres

Strait Islander people from five states and two territories in Australia. The results highlighted key insights into treatment practices, including the development and theoretical foundations of treatment, current approaches to treatment, an awareness of evaluation efforts and issues in the implementation of treatment for Aboriginal and Torres Strait Islander people. It was made evident that few Aboriginal and Torres Strait Islander-specific programs exist.

Although some organisations implemented culturally relevant treatment approaches, it was more common to see Western therapeutic interventions at the forefront of practice. In addition, fully acknowledging the lack of validated assessment tools for Indigenous people, it was not surprising to observe the lack of Aboriginal and Torres Strait Islander-specific risk and needs assessment tools for assessment suggesting a resulting lack of adherence to the principles of risk, need and responsivity among these organisations. Although valuable evidence was provided by respondents, it is clear that Australian treatment providers need to urgently consider their current approach to treatment. Australian organisations should work towards decolonising Western-developed treatment paradigms by re-developing treatment so that it is led by Aboriginal and Torres Strait Islander people to meet the needs of Aboriginal and Torres Strait Islander offenders. Once in a position of providing evidence-based best-practice approach to treatment, organisations need to evaluate their programs and use ethical approaches in their evaluation efforts.

5.6 Overall Implications and Recommendations

The present thesis is the first to systematically synthesise and meta-analyse the characteristics and effectiveness of treatment provided to Indigenous people who have engaged in a sexual offence. In addition, the thesis was the first project to survey a sample of treatment service providers of sexual offender treatment programs in Australia to build a repository and foundation of information on what treatment approaches are currently in use with Aboriginal and Torres Strait Islander people. From these analyses, a strategic list of 21

recommendations has been produced and is directed to policymakers, state and territory-level governments, clinicians, treatment facilitators, treatment designers, future evaluators, meta-analysts and academics in the wider psycho-criminological field. These recommendations are categorised into the areas they are intended to target, including:

1. Treatment providers
2. Scholars and treatment evaluators
3. Research funders and academic journals
4. Research teams
5. Governments

It should be acknowledged that many of the recommendations address multiple targeted groups.

5.6.1 Recommendations for Treatment Providers

5.6.1.1 R1: *Decolonisation of Sexual Offender Treatment Programs*

Given the significance of the findings presented throughout this thesis, integrating culture into treatment programs is not sufficient to ensure they are suitable for Indigenous people. Rather, such integration should be used as a temporary measure while organisations work towards decolonising sexual offender treatment programs for Indigenous people. This latter would involve critically examining and challenging the Western-centric frameworks and paradigms that dominate current programs and marginalise outcomes for Indigenous people, as well as addressing the ongoing effects of colonisation that are evident in treatment practices. Current sexual offender programs treatment programs should, therefore, be re-developed so that they are Indigenous-led, culturally appropriate at all stages of the risk, need and responsivity model and both respectful of and grounded in Indigenous knowledge, values and practices.

5.6.1.2 R2: Staff Cultural Competence

Because Indigenous Australians comprise only 3% of the population, it is recognised that only having Indigenous facilitators is not possible. However, treatment programs and organisations should ensure that all staff who are working with or providing treatment to Indigenous people who have sexually offended have received training in working with Indigenous people and communities. Meaningful cultural competency services should be provided to all staff members and importantly training should be regularly updated to ensure high levels are obtained. This should ensure that all staff members provide treatment have a level of cultural understanding and sensitivity when delivering treatment programs and working with Indigenous people.

5.6.1.3 R3: Indigenous Staff Leading Discussions

Further to R5, where treatment programs or organisations have Indigenous staff members, these staff should be invited to lead discussion circles in which non-Indigenous staff can ask questions and enhance their understanding of Indigenous cultures and their Indigenous clients. These circles should be run on a regular basis and led by an Indigenous staff member. It is of paramount importance, however, that the wellbeing of Indigenous staff is continuously monitored and that they are not over-worked because of their intricate knowledge of the communities from a cultural perspective.

5.6.1.4 R4: Governance from Indigenous Advisory Groups

Organisations that provide treatment to Indigenous people should be governed by an Indigenous advisory group that provides recommendations for working with Indigenous clients. This strategy would require organisations develop their Indigenous advisory group from local Indigenous members who can provide best advice on issues facing Indigenous people. At minimum, each organisation's Indigenous advisory group should include an

Indigenous worker from the organisation, an Elder and an Indigenous community member who has no affiliation to the organisation.

5.6.2 Recommendations for Scholars and Treatment Evaluators

5.6.2.1 R5: *Inclusion of Self-reported Measures*

Best-practice approaches to understanding post-treatment recidivism should include two measures for a true interpretation of offending post-treatment: (i) official documentation of offending that has come to the attention of the criminal justice system, as well as (ii) self-reported offending. Given international research states that most sexual offences do not make it to the attention of the criminal justice system, it is important that self-reported measures are included in future research. Where appropriate, self-reported measures should be designed into all future evaluations and reported as a limitation when not possible. This recommendation increases in significance when studies make comparisons between Indigenous and non-Indigenous people, particularly given the heightened biases surrounding over-policing.

5.6.2.2 R6: *Inclusion of Additional Measures of Success*

It is recommended that scholars and evaluators move away from a reliance on measures of recidivism and adopt more progressive approaches. These approaches should examine the advantages participants have gained from treatment after completion to permit a more sensitive, comprehensive and nuanced assessment of what assists Indigenous people along their therapeutic journey. Additional measures can include assessing changes at an individual level, such as improvements to behaviour and mental health (e.g., reduced depression and anxiety, as well as enhanced utilisation of coping skills). Taking the definition of ‘success’ away from recidivistic outcomes will further assist in combating biases surrounding over-policing.

5.6.2.3 R7: *Excluding Cases of Pseudo-Recidivism from Analyses*

Close attention should be paid towards the effects of pseudo-recidivism in future sexual offender treatment outcome studies and in studies across the academic community. Further enquiries should be made when accessing recidivism data from criminal justice institutions to ensure that the offending behaviours—whether sexual, violent or general—occurred within the specified timeframe of the risk-to-reoffend period. Those offences that occurred prior to the index sexual offence for which treatment is provided should be reported in studies but excluded from any analyses examining treatment successes. These may include historical sexual offences that were reported during the risk-to-reoffend period. Similarly, to reduce bias or distort analyses of outcome effectiveness, recidivism should be consolidated into one recidivistic offence in cases where several offences have been committed in a ‘crime spree’.

5.6.2.4 R8: *Address Cases of Plea Bargaining*

Plea bargaining has a negative effect on recidivism outcome studies, particularly those analysing the effectiveness of treatment, because it disrupts the relationship between the act and the eventual conviction. Therefore, it is recommended that studies explore and report on cases, or suspected cases, of plea bargaining—particularly where the plea alterations change a sexual offence to a non-sexual or violent conviction. Clarification from criminal justice institutions as to whether there has been plea bargaining involved in the prosecution process would be required. In addition, studies reporting on arrest and conviction data should make the necessary attempts to ensure a plea has not been accepted.

5.6.2.5 R9: *Length of Follow-Up Periods*

Treatment for people who have engaged in a sexual offence involves a range of complexed interactions, with effectiveness reliant both on the offender’s motivation and ability to change and the skill of the program facilitator to reduce resistance and barriers to

engagement (Levenson & Prescott, 2014). Because exposing treatment programs to longer follow-up periods would serve as a more adequate way to measure effectiveness for the outcome variable of sexual recidivism, a minimum of a five-year period should be implemented as a follow-up period to adhere with other international studies (see Table 3.32). In addition, using regression analysis, recidivism should be measured at multiple points in time to understand at what point the effects of treatment begin to diminish.

5.6.2.6 R10: *Revisiting Previous Studies*

In line with recommendation five, it is recommended that studies included in this review revisit relevant data to measure the effects of sexual offender treatment for Indigenous people longitudinally. The data collection years for the studies examined in this thesis ranged from 1983 to 2012. Thus, even the most recently collected data on recidivism (2012) would now have incurred an additional 13 years to prescribed follow-up periods. Although it is acknowledged that the treatment methods utilised for people who have sexually offended continue to change over the years, it is important to understand whether the treatment methods used in the past for Indigenous people have continued to impose a positive effect on participants.

5.6.2.7 R11: *Aggregation in Samples*

Rates of recidivism have generally been concealed in studies by the reporting of a total recidivism rate, followed by recidivism for treatment completers and those in comparison groups (whether that be participants who did not receive treatment, dropped out or refused to engage in the program). Thus, calculating composite recidivism rates for all participants has assumed that sexual offenders are a homogeneous demographic. It is suggested that future research into treatment effectiveness steer away from this averaging process for recidivism and more towards subgroup information. This change would provide rich and meaningful information concerning treatment effectiveness for the sexual offender

sub-types. It is proposed that these sub-types, at a minimum, should include a breakdown into contact and non-contact sexual offenders.

5.6.2.8 R12: *Treatment Dropouts and Refusers*

Treatment dropouts and refusers have consistently been shown to be more likely to reoffend (in comparison with treated and untreated offenders) and produce higher scores on actuarial instruments designed to measure recidivism. Yet, little research has been commissioned to investigate why attrition occurs or to identify methods that ensure treatment attrition does not occur. In the present review, there was minimal information on participants who dropped out or refused to engage in the therapeutic process. It is recommended that scholars investigate why treatment attrition may occur for Indigenous people specifically and identify possible avenues for re-engaging or referring these participants to alternative services. There is, after all, considerable concern that high-risk individuals are within the community despite not receiving the benefits of therapeutic interventions. It is hypothesised that attrition occurs as a result of the responsivity principle being ineffectively addressed for Indigenous people.

5.6.2.9 R13: *The ‘New’ Gold Standard Design*

Researchers conducting evaluations of sexual offender treatment programs should not strive for the standards imposed by stringent medical-style designs (which was uncommon in this thesis but noted in the wider literature). These designs, particularly those imposing RCT designs, may heighten the risk presented to the community. Researchers should still strive for adequate methodological approaches to ensure the reliability of findings. These designs would include intent-to-treat approaches whereby individuals who were deemed motivated to engage in treatment but were unable to for various reasons (e.g., location, relocating to a different prison) comprise the comparison group. Using a comparison group relevant and proportionate to the treatment group is a requirement to yield meaningful inferential results.

Such a design should become the new ‘Gold Standard’ design within the psycho-criminological field for measuring the effects of treatment for Indigenous people who have sexually offended, along with non-Indigenous people attending treatment.

5.6.2.10 R14: Developing New Intra-Individual Measures of Change

Because not all participants derive the same benefits from treatment, it is recommended that future studies assess changes in proximal outcomes. That is, outcome measures should not be limited to recidivism post-treatment, but should examine the intra-individual changes attributed to treatment. Changes to outcome data will provide a more sensitive, comprehensive and nuanced consideration of what assists Indigenous people along their path to desistance. Intra-individual changes should focus on psychological and behavioural changes (e.g., decreased anxiety, depression and all relevant psychological symptoms). There should also be a focus on increases in the effective use of coping skills in dealing with psychosocial stressors, improvements in sexual and general self-regulation and the use of strategies to meet psychological and emotional needs in healthy, non-harmful and adaptive ways. Finally, new measures of intra-individual change should seek information on readiness to change, educational engagement and employment attainment, as well as relationship and prosocial engagements.

5.6.2.11 R15: Treatment Providers’ Impact as an Outcome Measure

Because different programs can provide the same treatment but receive different recidivism outcomes, it is recommended that research on treatment outcomes investigates the characteristics of those providing the treatment as a factor for change. Including therapist characteristics and measures in outcome research is important for understanding ‘what works for whom’ and ensuring treatment providers can progress beyond administering content and assist those who have sexually offended to invest in the treatment process, with the knowledge that change is desirable, possible and attainable. Measuring treatment delivery

would provide a sound method for exploring why treatment programs report different levels of recidivism while delivering the same treatment. Such an approach would also facilitate understanding the outcomes of treatment when culturally trained staff deliver services to Indigenous participants.

5.6.3 Recommendations for Research Funders and Academic Journals

5.6.3.1 R16: *A Call for Research*

It is now evident that more research into the area of treatment effectiveness for Indigenous people who have sexually offended is required. In particular, more research is required into how to ensure treatment effectively addresses the responsivity principle for Indigenous people and, thus, ensures reduced or ceased recidivism post-treatment. Consequently, a call for research should be conducted by academic journals and governments looking to strengthen their approaches to ‘close the gap’ between Indigenous people and non-Indigenous people.

5.6.3.2 R17: *Methodical and Well-Formulated Data Collection Processes*

Clear, methodical and well-formulated approaches to collecting data regarding treatment effectiveness need to be developed and published to ensure future researchers and evaluators know the types of data they should be collecting. It is acknowledged that researchers and evaluators are confronted with many challenges at various stages of the data collection processes. These challenges may range from ensuring the highest standard of ethical principles are upheld (a challenge when a placebo cannot be used because of the presented societal risk of allowing an untreated sexual offender into the community) to having access to adequately documented records on participants. However, there needs to be consistency in the reporting of basic variables. A standardised approach would give researchers and evaluators insight into the necessary data that should be collected and, should some of that information be unavailable or non-existent, this can then be communicated in

findings. Appendix 5 presents a proposed framework for the types of data that should be collected and reported in future evaluations. It includes 272 variables of interest for understanding the characteristics and effectiveness of the treatment provided to Indigenous people who have sexually offended.

5.6.4 Recommendations for Research Teams

5.6.4.1 R18: *Developing a Data and Information Repository Centre*

Much scholarship goes unpublished because the information and results are not favourable or significant enough to be published in a journal, or because governments will not publish results that demonstrate their programs are ineffective for the cohort they are intended to treat. The establishment of a data repository centre would allow those people who have conducted evaluations or other research into Indigenous people who have sexually offended to share their information and results. Further, allowing other researchers or facilitators involved in developing or strengthening programs for Indigenous people to see ‘what works’ and what is not effective in reducing sexual recidivism would allow researchers to develop methodologically appropriate approaches for investigating the effectiveness of treatments and the variables that result in effectiveness.

5.6.4.2 R19: *Collaborative Research with Indigenous People*

In an attempt to decolonise criminological research practices, it is recommended that all future research into the treatment of Indigenous people who have sexually offended is ideally led by, but at least completed in consultation with Indigenous communities and key Indigenous stakeholders. Best practices approaches should state that consultation processes should begin at the conceptualisation of the research project and continue throughout all stages of the research project until completion. Any stakeholders or communities who collaborate on research projects must be reimbursed for their efforts.

5.6.5 Recommendations for Governments

5.6.5.1 R20: *Funding for Indigenous and First Nations Treatment Research*

Governments internationally have made commitments and provided funding to reduce the over-representation of Indigenous people in the criminal justice system. For example, Australia's 'closing the gap' framework is committed to reducing the over-representation of Aboriginal and Torres Strait Islander people in the criminal justice system. The government aims to reduce over-representation by 2031 at a rate of 15% for adults who are incarcerated and 30% for young people in detention (Closing the Gap, 2023). It is well established in the literature, however, that Indigenous people who have been in contact with the criminal justice system will be re-connected with the system at some point in time. Therefore, it is paramount that governments invest in research to understand treatment that breaks the cycle of reoffending by addressing the principles of risk, need and, in particular, responsivity for Indigenous people. This thesis has demonstrated that Indigenous people are provided treatment that is not specifically designed to meet their needs and is, therefore, ineffective. An investment in funding for scholars to conduct research into the treatment needs of Indigenous people, in conjunction with Indigenous people, is urgently needed.

5.6.5.2 R21: *Funding for Research into Treatment Effectiveness*

As mentioned in R24, governments such as in Australia have made commitments and invested heavily into addressing the over-representation of Indigenous people in the criminal justice system. It is paramount that funding is specifically provided to understand the treatment needs of Indigenous people who have sexually offended to ensure the cycle of reoffending is stopped. It is also important that governments provide funding for understanding and ensuring treatment is effective in reducing recidivism. Such an approach would ensure that the initiatives implemented from R23 are working adequately and effectively in reducing and ceasing post-treatment recidivistic behaviours.

5.7 Conclusion

International research has focused on calculating the effectiveness of treatment for people who have sexually offended but has neglected to recognise the heterogeneity of people who sexually offended. Consequently, scholars have examined ‘what works?’ for people who have sexually offended instead of producing the more detailed appraisal of ‘what works for whom?’. Given this significant gap in the literature, the present thesis has explored the characteristics and effectiveness of treatment for Indigenous people who have engaged in a sexual offence. Without undertaking research, it is unknown whether treatment produces positive outcomes for Indigenous people through reduced recidivism or, more concerningly, causes more harm. Three studies were strategically undertaken to achieve this: (i) a systematic narrative review of the literature, (ii) a meta-analysis of treatment effectiveness and (iii) a survey of routine practice among Australian treatment programs.

Study one was the first systematic review in the international literature to narratively synthesise available studies producing recidivism outcomes for Indigenous people who have sexually offended and received treatment in four colonised countries. Despite conducting a comprehensive and scientifically rigorous approach to locate studies, it was identified that literature across Australia, New Zealand, Canada and the United States was sparse. More concerning, only just over half of the identified sample contained programs that used a blended approach to treatment (Western and culturally relevant practices). As expected, Indigenous people who completed treatment were less likely to reoffend sexually or violently post-treatment when compared to Indigenous people who did not complete treatment. However, treatment had a more profound effect on non-Indigenous people who completed treatment when compared to Indigenous people who engaged in the same treatment programs. These findings amplified the notion that treatment for Indigenous people who have sexually offended does not adhere to the worldwide, fundamental criminological principles of

risk, need, and responsivity. A stronger need for research into treatment for Indigenous people who have sexually offended is warranted with urgency.

The first study therefore demonstrated that, internationally, there is a wealth of work required to ensure treatment provided to Indigenous people meets their specific needs. Providing treatment in accordance with Western paradigms of therapeutic intervention to Indigenous people goes against decolonising practices and could cause further harm to the community by not effectively addressing offending behaviours. The findings from the systematic review also led to the identification of gaps in the literature that, in turn, produced three opportunities for future research to address. It was recommended, for example, that future research focuses on assessing treatments for Indigenous people who have sexually offended. However, it was further noted that to make this effective, a centralised sexual offender treatment research repository was required for researchers to upload their findings, whether positive or negative. Finally, given the limitations of accessing published results—given scholars tend not to publish negative or non-significant findings—it was recommended that a survey of routine practice be undertaken to overcome this barrier.

Building on study one, the second study used a powerful statistical methodology to investigate the effectiveness of treatment for Indigenous people. Those studies in the systematic review containing a comparison group were used for the purposes of a meta-analysis to ascertain the statistical effectiveness of treatment for Indigenous people as one cohort to produce more meaningful conclusions. Overall, results produced favourable outcomes for all participants regardless of Indigeneity, but the largest effect sizes centred around comparisons made between Indigenous treatment completers and the Indigenous comparison group. Treatment programs including culturally relevant practices produced some of the largest effects that were also statistically significant in comparison with a Western approach (CBT). In addition, treatment that proceeded for a longer period had statistically

significant effects for reducing recidivism. However, discussion centred around the notion of over-policing, in addition to other biasing variables, and how these may affect results.

It was, therefore, urged from the results of study two that programs consider the approaches to treatment that are currently used and ensure cultural components are implemented to ensure positive outcomes are achieved. Moreover, it was urged that scholars conduct research into the effectiveness of treatments for Indigenous people who have sexually offended, ensuring that research approaches are of a sound methodological quality and culturally sensitive. It was finally reported that future research was needed given the current lack of published research findings.

As recommended in study one and two, the third and final study set out to overcome the barrier of published research by conducting a survey of routine practice—the first study of its kind in Australia. In mapping current practices, this study provided a foundation of knowledge in the field of treatment for Aboriginal and Torres Strait Islander people who had sexually offended and received treatment in Australia. The survey approach was a strategic way to gain comprehensive and detailed information from a sample of facilitators providing treatment to Aboriginal and Torres Strait Islander people across Australia.

Although it was acknowledged that some organisations have implemented culturally relevant treatment approaches, it was more common to see Western-developed therapeutic interventions at the forefront of practice. In addition, there was a lack of Aboriginal and Torres Strait Islander-specific risk and needs assessment tools, suggesting, again, a lack of adherence to the principles of risk, need and responsivity among these organisations. Although valuable evidence was provided from respondents on their respective organisations, it is clear that Australian treatment providers need to urgently consider their current approaches to treatment. It was argued that Australian organisations need to decolonise their current treatment practices and ensure programs are re-built with Indigenous stakeholders at

the forefront and using Aboriginal and Torres Strait Islander knowledge and healing methods. Once this has occurred, organisations need to evaluate their programs and use ethical approaches in their evaluation efforts.

To conclude, this thesis has presented the first insights into the characteristics and effectiveness of treatment for Indigenous people who have engaged in a sexual offence. It is evident that international work has a long way to go across all levels to ensure treatment is developed so that it addresses the needs of Indigenous people who have sexually offended. Despite the points discussed throughout this thesis—and those the reader may believe to be of importance—it is paramount that the field moves towards decolonising current practices. It is only through the decolonisation of current methods that treatment will serve to address the needs of Indigenous people who have sexually offended and ensure enhanced community safety. There are clear challenges that need to be faced head-on by the field to ensure the question of ‘What works, for whom, in what context, and how?’ is answered for Indigenous and First Nations people.

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Appendices

Appendix 1: Static-99 Coding Sheet

Static-99R – TALLY SHEET

Assessment date: _____ Date of release from index sex offence: _____

Item #	Risk Factor	Codes		Score
1	Age at release from index sex offence	Aged 18 to 34.9 Aged 35 to 39.9 Aged 40 to 59.9 Aged 60 or older		1 0 -1 -3
2	Ever lived with a lover	Ever lived with lover for at least two years? Yes No		0 1
3	Index non-sexual violence - Any convictions	No Yes		0 1
4	Prior non-sexual violence - Any convictions	No Yes		0 1
5	Prior sex offences	<u>Charges</u> 0 1,2 3-5 6+	<u>Convictions</u> 0 1 2,3 4+	0 1 2 3
6	Four or more prior sentencing dates (excluding index)	3 or less 4 or more		0 1
7	Any convictions for non-contact sex offences	No Yes		0 1
8	Any unrelated victims	No Yes		0 1
9	Any stranger victims	No Yes		0 1
10	Any male victims	No Yes		0 1
	Total Score	Add up scores from individual risk factors		

Nominal Risk Levels (2016 version)	Total	Risk Level
	-3, -2,	I - Very Low Risk
	-1, 0,	II - Below Average Risk
	1, 2, 3	III - Average Risk
	4, 5	IVa - Above Average Risk
	6 and higher	IVb - Well Above Average Risk

Appendix 2: Established Keywords and Databases

Authors	Study Name	Databases	Keywords
Beaudry, G., Yu, R., Perry, A. E., & Fazel, S. (2021).	Effectiveness of psychological interventions in prison to reduce recidivism: A systematic review and meta-analysis of randomised controlled trials.	Cochrane Central Register of Controlled Trials, EMBASE, Global Health, MEDLINE, PsycINFO	Psychological interventions (e.g., program*, intervention*, treatment*), incarceration (e.g., prison*, incarcerat*, custod*), and recidivism (e.g., recommit*, reoffend*, recidiv*)).
Gutierrez, L., Chadwick, N., & Wanamaker, K. A. (2018).	Culturally relevant programming versus the status quo: A meta-analytic review of the effectiveness of treatment of Indigenous offenders.	PsycINFO, National Criminal Justice Reference Service (NCJRS), Google Scholar, Dissertations and Theses: Full Text, Criminal Justice Abstracts, and various government correctional agency websites	Aboriginal*, Native, Indian, Indigenous, ethnicity, race, Mori, culture, minority, First Nations, Mitis, Inuit, and recid*, relapse, offend*, prison, reoffen*, program*, treatment and interven*.
Hanson, R. K., Bourgon, G., Helmus, L., & Hodgson, S. (2009).	The principles of effective correctional treatment also apply to sexual offenders: A meta-analysis.	PsychINFO, Web of Science, Digital Dissertations, and the National Criminal Justice Reference System	sex* offend*, rape, rapist*, child molest*, pedophil*, paedophil*, exhibitionis*, sexual assault, incest, voyeur*, frotteur*, indecent exposure, sexual* devian*, paraphilia*, and treatment, outcome, intervention, program, recid*, reoffen*, relapse or failure.
Hanson, R. K., Gordon, A., Harris, A. J., Marques, J. K., Murphy, W., Quinsey, V. L., & Seto, M. C. (2002).	First report of the collaborative outcome data project on the effectiveness of psychological treatment for sex offenders.	PsycLIT and the National Criminal Justice Reference System (NCJRS)	sex(ual)offender, rape, rapist, child molester, pedophile, pedophilia, exhibitionist, exhibitionism, sexual assault, incest, voyeur, frotteur, indecent exposure, sexual deviant, paraphilia(c), and treatment, outcome, recidivism, recidivist, recidivate, reoffend, reoffense, relapse and failure.

Kettrey, H. H., & Lipsey, M. W. (2018).	The effects of specialized treatment on the recidivism of juvenile sex offenders: A systematic review and meta-analysis.	61 electronic databases, including ProQuest Criminal Justice Database, ProQuest Dissertations and Theses, ProQuest Research Library, PsycARTICLES, PsycINFO and Sociological Abstracts	sex AND (adolescent OR juvenile) AND (offense or offender) AND (treatment OR intervention).
Reitzel, L. R., & Carbonell, J. L. (2006).	The effectiveness of sexual offender treatment for juveniles as measured by recidivism: A meta-analysis.	various social science and criminal justice databases.	‘Juvenile sex offender treatment’ and ‘juvenile sex offender treatment effectiveness’ and ‘juvenile sex offender recidivism’.
Schmucker, M., & Lösel, F. (2017).	Sexual offender treatment for reducing recidivism among convicted sex offenders: A systematic review and meta-analysis.	C2-SPECTR Center for Sex Offender Management (CSOM) documents database Cochrane Library Dissertation Abstracts International ERIC KrimLit Beta II MedLine National Criminal Justice Reference Service (NCJRS) PAVNET Online PsycInfo Psyndex Social Services Abstracts Sociological Abstracts UK National Health Service National Research Register	sex* or paraphil* or rape or rapist or molest* or exhibitionis* or voyeur* or pedophil* or incest* or fetish* or necrophil* or frotteur*offen* or crim* or delinquen* or perpetrator* or prison*treat* or therapy or psychotherapy or intervention or training or correction* or rehabilitation or prevention or management or evaluation or evaluate or evaluated or outcome or outcomes or effect or effects or effectiveness or impact or recidivism or re-offen* or reoffen* or follow-up or followup or relapse.
Soldino, V., & Carbonell-Vayá, E. J. (2017).	Effect of treatment on sex offenders’ recidivism: A meta-analysis.	Cochrane Database of Systematic Reviews, MedLine, PsycInfo and Dialnet	(treatment OR intervention OR therapy) AND (sexual OR sex OR sexually) AND (offen* OR crim* OR assault* OR aggress* OR rap* OR abuse).

Schmucker, M., & Lösel, F. (2015).	The effects of sexual offender treatment on recidivism: An international meta-analysis of sound quality evaluations.	C2-SPECTR, Center for Sex Offender Management (CSOM) documents database, Cochrane Library, Dissertation Abstracts International, ERIC, KrimLit Beta II, MedLine, National Criminal Justice Reference Service (NCJRS), PAVNET Online, PsycInfo, Psynindex, Social Services Abstracts, Sociological Abstracts, and UK National Health Service National Research Register	(abnormal/delinquent) sexual behavior (e.g., sexual, paraphilia, molestation); (2) criminal conduct and population (e.g., criminal, offenders, prison); (3) therapeutic intervention (therapy, treatment, corrections, etc.); and (4) outcome research (e.g., effectiveness, outcomes, recidivism).
Walker, D. F., McGovern, S. K., Poey, E. L., & Otis, K. E. (2004).	Treatment effectiveness for male adolescent sexual offenders: A meta-analysis and review.	PsychINFO and Dissertation Abstracts International	‘adolescent sexual offenders’ and ‘treatments for adolescent sexual offenders’

Appendix 3: Database Level of Importance

Level of Importance	Database
8.	PsychINFO
5.	National Criminal Justice Reference Service
4.	MEDLINE Dissertation Abstracts International
3.	Sociological Abstracts
2.	C2-SPECTR Center for Sex Offender Management (CSOM) documents database Cochrane Library Criminal Justice Abstracts Dissertations and Thesis ERIC KrimLit Beta II PAVNET Online Psyndex PSocial Services Abstracts UK National Health Service National Research Register
1.	Cochrane Central Register of Controlled Trials Cochrane Database for Systematic Reviews Dialnet Digital Dissertaations EMBASE Global Health Google Scholar PsyncARTICLES PsyncLIT Research Library (ProQuest) Web of Science

Appendix 4: Keyword Level of Importance

Level of Importance	Keyword
9.	Sex*, Treatment*
7.	Recidiv*
6.	Offen*
5.	Reoffen*; Interven*
4.	Prison*; Paraphilia*; Outcome
3.	Rape*; Rapist*; Molest*; Pedophil; Exhibitionis*; Incest; Voyeur*; Frotteur*; Relapse; Effectiveness
2.	Program*; Paedophil*; Failure; Adolescent; Juvenile; Delinquen*; Correction*; Therapy
1.	Program*; Intervention*; Incarcerat*; Custod*; Recommit*; Child; Indecent Exposure; Devian*; Fetish*; Necrophil*; Crim*; Perpetrator*; Psychotherapy; Training; Prevention; Rehabilitation; Management; Evaluat*; Impact; Follow-up; Abuse; Abnormal; behaviour; Criminal
Culturally relevant	Aboriginal*; Native; Indian; Indigenous; Ethnicity; Race; Maori; Culture; Minority; First Nation*; Metis; Inuit

Appendix 5: Coding Variables from SPSS Dataset

Number	Variable Name
1.	Study Number
2.	Study Name
3.	Study Authors
General Study Characteristics	
4.	Publication Year
5.	Publication Year Actual
6.	Data Collection Date Start
7.	Data Collection Date Finish
8.	Country
9.	Region
10.	Specifically An Evaluation
11.	Aggregated Samples
12.	Number of Treatment Programs Included in Study
13.	Name of Treatment Program or Programs
14.	Publication Type
15.	Peer-Reviewed
16.	Study Located
Treatment Characteristics	
17.	Mode of Treatment
18.	Author Affiliation to Treatment
19.	Time of Treatment Implementation

20. Sex Offender Specific
21. Indigenous-Specific Treatment
22. Indigenous Group Involved in Treatment Program
23. Integrity of Treatment Implementation
24. Setting of Treatment
25. Participation Type
26. Individualisation of Treatment
27. Mean Duration of Treatment
28. Duration of Treatment Reporting Method
29. Mean Duration of Treatment Total Number
30. Mean Duration of Treatment Total Standard Deviation
31. Mean Duration of Treatment Number Days
32. Mean Duration of Treatment Number Days Standard Deviation
33. Mean Duration of Treatment Indigenous Number
34. Mean Duration of Treatment Indigenous Standard Deviation
35. Mean Duration of Treatment Number Days Indigenous
36. Mean Duration of Treatment Number Days Standard Deviation Indigenous
37. Mean Duration of Treatment Non-Indigenous Number
38. Mean Duration of Treatment Non-Indigenous Standard Deviation
39. Mean Duration of Treatment Number Days Non-Indigenous
40. Mean Duration of Treatment Number Days Standard Deviation Non-Indigenous
41. Duration of Treatment Minimum Range Days
42. Duration of Treatment Maximum Range Days

43. Mean Time Spent in Treatment Total Sample Measurement
44. Mean Time Spent in Treatment Total Sample Number
45. Mean Time Spent in Treatment Total Sample Standard Deviation
46. Mean Time Spent in Treatment Indigenous Sample Measurement
47. Mean Time Spent in Treatment Indigenous Sample Number
48. Mean Time Spent in Treatment Indigenous Sample Standard Deviation
49. Mean Time Spent in Treatment Non-Indigenous Sample Measurement
50. Mean Time Spent in Treatment Non-Indigenous Sample Number
51. Mean Time Spent in Treatment Non-Indigenous Sample Standard Deviation
52. Family Incorporation in Treatment
53. After Care

Offender Characteristics

54. Age Group
55. Homogeneity of Age
56. Mean Age Total Sample Number
57. Mean Age Total Sample Standard Deviation
58. Mean Age Indigenous Group Number
59. Mean Age Indigenous Group Standard Deviation
60. Mean Age Non-Indigenous Group Number
61. Mean Age Non-Indigenous Group Standard Deviation
62. Age Range Total Sample Low End
63. Age Range Total Sample High End
64. Male Female

65. Total Male Sample Number
66. Total Male Sample Percentage
67. Total Female Sample Number
68. Total Female Sample Percentage
69. Contact or Non-Contact
70. Most Serious Sexual Offence Type
71. Most Serious Sexual Offence Type Verbatim
72. Second Most Serious Sexual Offence Type
73. Third Most Serious Sexual Offence Type
74. Fourth Most Serious Sexual Offence Type
75. Most Serious Non-Sexual Offence Type
76. Second Most Serious Non-Sexual Offence Type
77. Third Most Serious Non-Sexual Offence Type
78. Fourth Most Serious Non-Sexual Offence Type
79. Risk Measurement Tool
80. Risk Measurement Tool Name of all used Verbatim
81. Risk Measurement Tool Indigeneity
82. Risk Measurement Tool Indigeneity Name Verbatim
83. Risk Category
84. Previous Treatment
85. Prior Sex Convictions Total Sample Number
86. Prior Sex Convictions Total Sample Percent
87. Prior Sex Convictions Treated Sample Number

88. Prior Sex Convictions Treated Sample Percent
89. Prior Sex Convictions Comparison Sample Number
90. Prior Sex Convictions Comparison Sample Percent
91. Prior Sex Convictions Indigenous Number
92. Prior Sex Convictions Indigenous Percent
93. Prior Sex Convictions Non-Indigenous Number
94. Prior Sex Convictions Non-Indigenous Percent
95. Prior Sex Convictions Indigenous Treatment Group Number
96. Prior Sex Convictions Indigenous Treatment Group Percent
97. Prior Sex Convictions Indigenous Comparison Group Number
98. Prior Sex Convictions Indigenous Comparison Group Percent
99. Prior Violent Convictions Total Sample Number
100. Prior Violent Convictions Total Sample Percent
101. Prior Violent Convictions Indigenous Number
102. Prior Violent Convictions Indigenous Percent
103. Prior Violent Convictions Non-Indigenous Number
104. Prior Violent Convictions Non-Indigenous Percent
105. Prior Other Convictions Total Sample Number
106. Prior Other Convictions Total Sample Percent
107. Prior Other Convictions Indigenous Number
108. Prior Other Convictions Indigenous Percent
109. Prior Other Convictions Non-Indigenous Number
110. Prior Other Convictions Non-Indigenous Percent

- 111. Prior Total Convictions Total Sample Number
- 112. Prior Total Convictions Total Sample Percent
- 113. Prior Total Convictions Indigenous Number
- 114. Prior Total Convictions Non-Indigenous Number
- 115. Prior Total Convictions Indigenous Treatment Group Number

Victim Characteristics

- 116. Victim Age
- 117. Victim Gender
- 118. Victim Relationship to Offender
- 119. Victim Relationship to Offender Most Common

Methodology Characteristics

- 120. Total Sample Size
- 121. Total Sample Size Number
- 122. Treatment Group
- 123. Treatment Group Number
- 124. Treatment Group Percentage
- 125. Comparison Group
- 126. Comparison Group Number
- 127. Comparison Group Percentage
- 128. Indigenous Total Sample Size Number
- 129. Indigenous Total Sample Size Percentage
- 130. Indigenous Treatment Group Number
- 131. Indigenous Treatment Group Percentage

- 132. Indigenous Comparison Group Number
- 133. Indigenous Comparison Group Percentage
- 134. Non-Indigenous Total Sample Size Number
- 135. Non-Indigenous Total Sample Size Percentage
- 136. Non-Indigenous Treatment Group Number
- 137. Non-Indigenous Treatment Group Percentage
- 138. Non-Indigenous Comparison Group Number
- 139. Non-Indigenous Comparison Group Percentage
- 140. Initial Group Equivalence for Risk-to-Reoffend

Recidivism Characteristics

- 141. Follow-Up Period
- 142. Follow-Up Period Reporting Method Before Conversion
- 143. Follow-Up Period Average Mean Years Total Sample Number
- 144. Follow-Up Period Average Mean Years Total Sample Standard Deviation
- 145. Follow-Up Period Average Mean Years Indigenous Number
- 146. Follow-Up Period Average Mean Years Indigenous Standard Deviation
- 147. Follow-Up Period Average Mean Years Non-Indigenous Number
- 148. Follow-Up Period Average Mean Years Non-Indigenous Standard Deviation
- 149. Follow-Up Period Mean Number Months Total Sample
- 150. Follow-Up Period Mean Number Days Total Non-Indigenous
- 151. Follow-Up Period Mean Number Days SD Total Non-Indigenous
- 152. Follow-Up Period Mean Number Days Total Indigenous
- 153. Follow-Up Period Mean Number Days SD Total Indigenous

154. Follow-Up Period Mean Number Days Non-Indigenous Treatment Group
155. Follow-Up Period Mean Number Days Non-Indigenous Treatment Group SD
156. Follow-Up Period Mean Number Days Indigenous Treatment Group
157. Follow-Up Period Mean Number Days Indigenous Treatment Group SD
158. Follow-Up Period Minimum Range Days Total Sample
159. Follow-Up Period Maximum Range Days Total Sample
160. Follow-Up Period Minimum Range Days Non-Indigenous
161. Follow-Up Period Maximum Range Days Non-Indigenous
162. Follow-Up Period Minimum Range Days Indigenous
163. Follow-Up Period Maximum Range Days Indigenous
164. Follow-Up Period Minimum Range Days Indigenous Treatment Group
165. Follow-Up Period Maximum Range Days Indigenous Treatment Group
166. Follow-Up Period Minimum Range Days Indigenous Comparison Group
167. Follow-Up Period Maximum Range Days Indigenous Comparison Group
168. Type of Reoffence
169. Definition of Recidivism
170. Source of Information

Recidivism Information: All Participants

171. Sexual Recidivism Number
172. Sexual Recidivism Percentage
173. Violent Recidivism Number
174. Violent Recidivism Percentage
175. Non-Sexual or Violent Recidivism Number

- 176. Non-Sexual or Violent Recidivism Percentage
- 177. Any Non-Sexual Recidivism Number
- 178. Any Non-Sexual Recidivism Percentage
- 179. Sexual Recidivism Number Treatment Group
- 180. Sexual Recidivism Percentage Treatment Group
- 181. Violent Recidivism Number Treatment Group
- 182. Violent Recidivism Percentage Treatment Group
- 183. Non-Sexual or Violent Recidivism Number Treatment Group
- 184. Non-Sexual or Violent Recidivism Percentage Treatment Group
- 185. Any Non-Sexual Recidivism Number Treatment Group
- 186. Any Non-Sexual Recidivism Percentage Treatment Group
- 187. Sexual Recidivism Number Comparison Group
- 188. Sexual Recidivism Percentage Comparison Group
- 189. Violent Recidivism Number Comparison Group
- 190. Violent Recidivism Percentage Comparison Group
- 191. Non-Sexual or Violent Recidivism Number Comparison Group
- 192. Non-Sexual or Violent Recidivism Percentage Comparison Group
- 193. Any Non-Sexual Recidivism Number Comparison Group
- 194. Any Non-Sexual Recidivism Percentage Comparison Group

Recidivism Information: Comparison Groups

- 195. First Comparison Group Type
- 196. First Comparison Group Type Sample Size
- 197. Sexual Recidivism Number First Comparison Group

- 198. Sexual Recidivism Percentage First Comparison Group
- 199. Violent Recidivism Number First Comparison Group
- 200. Violent Recidivism Percentage First Comparison Group
- 201. Non-Sexual or Violent Recidivism Number First Comparison Group
- 202. Non-Sexual or Violent Recidivism Percentage First Comparison Group
- 203. Any Non-Sexual Recidivism Number First Comparison Group
- 204. Any Non-Sexual Recidivism Percentage First Comparison Group
- 205. Second Comparison Group Type
- 206. Second Comparison Group Type Sample Size
- 207. Sexual Recidivism Number Second Comparison Group
- 208. Sexual Recidivism Percentage Second Comparison Group
- 209. Violent Recidivism Number Second Comparison Group
- 210. Violent Recidivism Percentage Second Comparison Group
- 211. Non-Sexual or Violent Recidivism Number Second Comparison Group
- 212. Non-Sexual or Violent Recidivism Percentage Second Comparison Group
- 213. Any Non-Sexual Recidivism Number Second Comparison Group
- 214. Any Non-Sexual Recidivism Percentage Second Comparison Group
- 215. Third Comparison Group Type
- 216. Third Comparison Group Type Sample Size
- 217. Sexual Recidivism Number Third Comparison Group
- 218. Sexual Recidivism Percentage Third Comparison Group
- 219. Violent Recidivism Number Third Comparison Group
- 220. Violent Recidivism Percentage Third Comparison Group

- 221. Non-Sexual or Violent Recidivism Number Third Comparison Group
- 222. Non-Sexual or Violent Recidivism Percentage Third Comparison Group
- 223. Any Non-Sexual Recidivism Number Third Comparison Group
- 224. Any Non-Sexual Recidivism Percentage Third Comparison Group

Recidivism: Indigenous and Non-Indigenous

- 225. Non-Indigenous Sexual Recidivism Total Number
- 226. Non-Indigenous Sexual Recidivism Total Percentage
- 227. Non-Indigenous Violent Recidivism Total Number
- 228. Non-Indigenous Violent Recidivism Total Percentage
- 229. Non-Indigenous Non-Sexual or Violent Recidivism Total Number
- 230. Non-Indigenous Non-Sexual or Violent Recidivism Total Percentage
- 231. Non-Indigenous Any Non-Sexual Recidivism Total Number
- 232. Non-Indigenous Any Non-Sexual Recidivism Total Percentage
- 233. Indigenous Sexual Recidivism Total Number
- 237. Indigenous Sexual Recidivism Total Percentage
- 235. Indigenous Violent Recidivism Total Number
- 236. Indigenous Violent Recidivism Total Percentage
- 237. Indigenous Non-Sexual or Violent Recidivism Total Number
- 238. Indigenous Non-Sexual or Violent Recidivism Total Percentage
- 239. Indigenous Any Non-Sexual Recidivism Total Number
- 240. Indigenous Any Non-Sexual Recidivism Total Percentage
- 241. Non-Indigenous Sexual Recidivism Treatment Group Number
- 242. Non-Indigenous Sexual Recidivism Treatment Group Percentage

- 243. Non-Indigenous Violent Recidivism Treatment Group Number
- 244. Non-Indigenous Violent Recidivism Treatment Group Percentage
- 245. Non-Indigenous Non-Sexual or Violent Recidivism Treatment Group Number
- 246. Non-Indigenous Non-Sexual or Violent Recidivism Treatment Group Percentage
- 247. Non-Indigenous Any Non-Sexual Recidivism Treatment Group Number
- 248. Non-Indigenous Any Non-Sexual Recidivism Treatment Group Percentage
- 249. Indigenous Sexual Recidivism Treatment Group Number
- 250. Indigenous Sexual Recidivism Treatment Group Percentage
- 251. Indigenous Violent Recidivism Treatment Group Number
- 252. Indigenous Violent Recidivism Treatment Group Percentage
- 253. Indigenous Non-Sexual or Violent Recidivism Treatment Group Number
- 254. Indigenous Non-Sexual or Violent Recidivism Treatment Group Percentage
- 255. Indigenous Any Non-Sexual Recidivism Treatment Group Number
- 256. Indigenous Any Non-Sexual Recidivism Treatment Group Percentage
- 257. Non-Indigenous Sexual Recidivism Comparison Group Number
- 258. Non-Indigenous Sexual Recidivism Comparison Group Percentage
- 259. Non-Indigenous Violent Recidivism Comparison Group Number
- 260. Non-Indigenous Violent Recidivism Comparison Group Percentage
- 261. Non-Indigenous Non-Sexual or Violent Recidivism Comparison Group Number
- 262. Non-Indigenous Non-Sexual or Violent Recidivism Comparison Group Percentage
- 263. Non-Indigenous Any Non-Sexual Recidivism Comparison Group Number
- 264. Non-Indigenous Any Non-Sexual Recidivism Comparison Group Percentage
- 265. Indigenous Sexual Recidivism Comparison Group Number

- 266. Indigenous Sexual Recidivism Comparison Group Percentage
 - 267. Indigenous Violent Recidivism Comparison Group Number
 - 268. Indigenous Violent Recidivism Comparison Group Percentage
 - 269. Indigenous Non-Sexual or Violent Recidivism Comparison Group Number
 - 270. Indigenous Non-Sexual or Violent Recidivism Comparison Group Percentage
 - 271. Indigenous Any Non-Sexual Recidivism Comparison Group Number
 - 272. Indigenous Any Non-Sexual Recidivism Comparison Group Percentage
-

Appendix 6: Survey for Organisations Providing Treatment to Indigenous People who have Sexually Offended

Project Title: The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People Who Have Sexually Offended: A Survey of Routine Practice In Australia

Chief Investigator: James Finney

By engaging in this survey I acknowledge that I:

- have been provided with a copy of the Participant Information Letter, explaining the research study
- have read and understood the information provided
- have been given the opportunity to ask questions and have had questions answered to my satisfaction
- can contact the research team if I have any additional questions
- understand that participation in the research project will involve:
 - *The completion of a survey taking approximately 30-minute to complete.*
- understand that the information provided will be kept confidential, and that my identity will not be disclosed
- understand that I am free to withdraw from further participation until the survey has been submitted, without explanation or penalty
- freely agree to participate in the project.

I freely consent to participate in this survey [] --> survey begins.

I do not consent to participate in this survey [] --> survey ends.

Please Read Before Completing Survey

Where programs include both Aboriginal and/or Torres Strait Islander participants and non-Indigenous participants, please ensure all questions are answered in relation to Aboriginal and Torres Strait Islander participants only.

Please select the jurisdiction your program is delivered in:

- Western Australia []
- New South Wales []
- Northern Territory []
- South Australia []
- Victoria []
- Australian Capital Territory []
- Queensland []
- Tasmania []

1. General Information

1. What is the name of the sexual offender intervention program available? Please

State.....

2. For how long has this program been running? Please state (Years or months)

.....

.....

3. Who can participate in this program? Please select all that apply.

1. Males []
2. Females []
3. Transgender []
4. People who prefer to self-describe []
5. People who prefer not to disclose []

4. What is the age range of these participants?

1. 10–18 years []
2. 19–24 years []
3. 25–35 years []
4. 36–45 years []
5. 46–55 years and older []
6. Other (Please state):

5. Does the program take place on a regular basis? Yes []/ No []/ Don't Know []

6. What is the name(s) of the Indigenous/First Nations individuals or groups(s) participating in the program?

1. Please state.....

7. What is the prior offence history of the program recipients? (Please select both if applicable).

1. Contact Sexual Offending []
Please specify.....
2. Non-Contact Sexual Offending []
Please specify
3. Other (Please state):.....

8. How do you obtain participants for the program or target recipients?

1. Court referrals []

2. Court order/court diversion []
3. Prison []
4. Probation []
5. Parole []
6. Voluntary / self-referral []
7. Other(s): Please State:
.....

9. How is the program(s) funded? (Please select all that apply)

1. State government []
2. Local government []
3. Federal government []
4. Client Fees []
5. Private contributions []
6. Foundation []
7. NGOs []
8. Grants []
9. Others (Please state):
.....

2. Description of the program

1. Is the program based on known programs?

1. Yes []: Name of the program (Please state):.....
2. No []: Own program (Please state the type of program):
.....

3. If known, what is the main theoretical background (or underlying aim) of the program? Please describe briefly:

.....
.....

4. Are the individuals who developed the program also involved in the implementation or delivery of the program?

1. i. Yes []
2. ii. No []

4. Do you have a manual for the procedure of the program?

1. Yes [] How many pages? Please State:.....
2. No [] Any Reason?

5. Do you have a training manual for the program?

1. Yes [] How many pages? Please state:.....
2. No [] Any Reason? Please State:.....

6. Do you have an assessment manual for the program?

1. Yes [] How many pages? Please State:.....
2. No [] Any Reason? Please State:.....

7. Do you have a management manual for the program? Yes/ No

1. Yes [] How many pages? Please State:.....
2. No [] Any Reason? Please State:.....

8. Are the organisation and contents of the program structured?

1. Not at all []
2. Very Little []
3. Somewhat []
4. To a great extent []

9. What type of intervention do you provide to participants? (please select all that apply)

1. Non-Behavioural Psychological Therapy [☐]
2. Educational Intervention [☐]
3. Behavioural Intervention [☐]
4. Cognitive Behavioural Intervention [☐]
5. Interpersonal Skills training [☐]
6. Hardening of facility regime/ increasing discipline and sanctions [☐]
7. Therapeutic community [☐]
8. Indigenous/First Nations specific treatment (cultural-relevant treatment) [☐]

Please specify the specific

components.....
.....
.....

9. Other (Please specify):

10. Are there specific components of the intervention interview you have mentioned in the above question that you believe make the program successful, or at a minimum, help in reducing post-treatment recidivism?

1. Yes [☐] Please specify.....
2. No [☐]

11. Is the program delivery tailored to the learning styles and abilities of the offenders?

1. No [☐]
2. Somewhat [☐]
3. Yes [☐]

12. Please explain the types of methods that are adopted in the program delivery? (i.e., Indigenous practices, group discussions). Please state proportion in percentages [%])

1. [☐] Indigenous/First Nations specific delivery.....%

Please specify in detail

.....
.....

2. [] Information through lecture:.....%
3. [] Information through recording.....%
4. [] Behaviour practices.....%
5. [] Role plays:.....%
6. [] Lead discussion, group work:.....%
7. [] Open discussions, conversations:.....%
8. [] Self-reflection, self-experience:.....%
9. [] Relaxation procedure:.....%
10. Other (Please state):.....

13. How many weeks does the program take from first to last treatment? Please

state:.....

14. How many sessions are required from the first to the last treatment? Please state:

.....

15. Approximately for how many hours per week does treatment contact/ treatment supervision occur?

1. 1–2 Hours []
2. 2–4 Hours []
3. 4–10 Hours []
4. 10–20 Hours []
5. Other (Please state):

16. How long does each treatment session last? (Please state in Hours/Minutes):

.....

17. How are the sessions designed? []

1. Single Sessions Alone []
2. Group Sessions Alone []
3. Mixture: proportion of single and group sessions []
4. Elder/Indigenous representative sessions []
5. Other (Please State):

If Group Sessions only, what is the number per group? Group size

18. Who developed the intervention or treatment program?

1. Mental Health Professionals that belong to the Justice system []
2. Mental Health Professionals independent of the Justice System []
3. Mental Health Professionals (without information about their affiliation to the Justice system) []
4. Professional Educators/ Social Workers affiliated with the Justice System []
5. Professional Educators/ Social Workers independent of the Justice system []
6. External/ Independent Program Developers []
7. Non-Professionals []
8. Other Professionals (Please State):
.....

19. Was an Indigenous/First Nations representative(s) involved in developing the intervention or treatment program?

1. Yes []
2. No [] If yes, please specify.....

20. Who delivers or provides the program/treatment/intervention?

1. Indigenous/First Nations representative []
If yes, please specify Indigeneity
2. Mental Health Professionals that belong to the Justice system []

3. Mental Health Professionals independent of the Justice System []
4. Mental Health Professionals (without information about their affiliation to the Justice system) []
5. Professional Educators/ Social Workers affiliated with the Justice System []
6. Professional Educators/ Social Workers independent of the Justice system []
7. External/ Independent Program Developers []
8. Non-Professionals []
9. Other Professionals (Please State):.....

21. How many people (staff) apply or deliver the intervention program? Please state and state the number of those who are Indigenous or First Nations

.....

22. Do you undertake a **need** assessment of the program recipients?

1. Yes []
2. No []
3. Don't know []

22.1. Do you undertake a risk assessment of the program recipients?

- i. Yes [] If Yes Please go to item number 22(a).
- ii. No [] If No, Please continue from item number 23.

22.2 (a). If Yes, What is the risk level of these participants or offenders?

1. High Risk []
2. Medium–High Risk []
3. Medium Risk []
4. Medium–Low Risk []
5. Low Risk []

Please specify the tool used to determine
risk.....

22.3 (b). What risk assessment tool is used to determine the level of risk for
Indigenous/First Nations people who have sexually offended?

.....
.....

24 Where does the intervention or treatment program take place?

1. Centre of Juvenile reform []
2. Youth Prison/Detention []
3. Adult Prison []
4. Special Training School []
5. Hospital []
6. Community: Community centre []
7. Other (Please State):

25 If there are other specifics about the program(s) you would like to emphasise please do so
now

.....
.....

III Documentation and Evaluation

Sometimes, program(s) are evaluated if it is implemented as it was meant to be; if the target
group was reached, if the participants were satisfied etc. The following section is about those
aspects.

If you have evaluated those aspects for your program (e.g., a written survey), we would like to know the results.

If you have not evaluated your program you might be able to estimate nevertheless. If you have done the program several times already please think of a typical example.

1. How successful was the program in reaching its target population/ group in its intended format (e.g., it reached 60% of those targeted, 20% completed some of the program, 20% dropped out)

.....
.....

1.2 Did the participants attend the program regularly?

- This was evaluated with the following result:.....
- This was not evaluated. My estimation would be regularly (i.e., all sessions) (X %)....., often (i.e., most sessions) (X %)....., not regularly (i.e., minimal engagement) (X %).....

1.3 What proportion of participants have successfully completed the program?

- This was evaluated with the following result:.....
- This was not evaluated. My estimation would be (X % graduated from the program).....

1.4 How satisfied were participants with the program?

- This was evaluated with the following
result:.....
- This was not evaluated. My estimation would be
 - i. Poorly satisfied []
 - ii. Satisfied []
 - iii. Very Satisfied []

1.5 Were you able to implement the program as planned?

- This was evaluated with the following
result:.....
- This was not evaluated. My estimation would be:
 - i. Very Obstructed []
 - ii. Obstructed []
 - iii. Not at all obstructed []

- If there were obstacles to implementing the program, what were they?

.....

.....

1.6 Are measurements taken to ensure the quality of the program (e. g. supervision, training, evaluation of feedback)?

- i. Yes []
- ii. Somewhat []
- iii. No []

1.7 Here you can write down important results of your evaluation or observation

.....

.....

IV OUTCOME EFFECTIVENESS

Every program has certain goals for its participants. In everyday life, practice it is often difficult to evaluate systematically if the goals were met. But sometimes it is possible to evaluate the effectiveness of a program. You can for example survey the abilities and knowledge of participants before and after the intervention. This can happen in form of a diploma thesis or by the institution itself.

1. Is there an outcome evaluation for your program(s)?

- a) Yes the results are published, they can be found in..... [☐]
- b) The results are not published but I am able to attach them [☐]
- c) Evaluation is currently running [☐]
- d) Evaluation is planned but not running [☐]
- e) No formal evaluation is planned. [☐] Please specify why (i.e., funding issues, etc).....

2. Who conducted the outcome effectiveness evaluation?

- a) Internal Unit or department or expert in the Justice organisation [☐]
- b) External Unit or expert separate from our organisation e.g., academic institution [☐]
- c) Program Developer(s) [☐]
- d) Other (Please state):..... [☐]

3. What design was incorporated in the assignment of participants to the program?

- a. Randomisation after matching, stratification, blocking etc. [☐]
- b. Simple Random including systematic sampling [☐]

- c. Non-Random, Post Hoc Matching []
- d. Non-Random []
- e. Other (Please State):

4. Impartial from an evaluation, we would like to ask you for your personal opinion.

1. In your opinion, were the goals of the program met?
 - i. Not at all []
 - ii. In some aspects []
 - iii. Perfectly []

2. Which attribute(s) of the program do you think is the most important to reach the program goals?

.....

.....

3. Usually not all participants benefit from the program in the same way. How are the following proportions in your opinion? E.g. 50% benefited highly (i.e., successfully completed and achieved all program aims), 20% benefited moderately averagely (i.e., completed treatment and achieved some program aims) and 30% didn't benefit (i.e., did not complete treatment or achieve the program aims).
 - i. Participants that did not benefit []%
 - ii. Participants that benefited moderately []%
 - iii. Participants that benefited highly []%

5. What is the outcome variable of the evaluation?

- i. Sexual Recidivism []
- ii. General Recidivism []
- iii. Self-Reported Recidivism []

6. Psychological Measures []

7. Institutional Measures []

8. Behavioural Measures []

5(a). Do you routinely make follow-up contacts by collecting data on recidivism or reoffending of participants?

a) **Yes** [] How do you obtain such information?

- i. Court records []
- ii. Probation []
- iii. Prison records []
- iv. Parole []
- v. Other (Please state).....

b) **No** [] Please state reason:

.....
.....

6. Which characteristics of participants are in your opinion especially important to benefit from the program?

.....
.....

7. Which characteristics of the setting/place of delivery are in your opinion especially important for the benefit of the program?

.....
.....
8. Which characteristics of the implementation are in your opinion, especially important for the benefit of the program?

.....
.....
9. Please write down your personal experience or further comments here:

.....
.....
10. Are there any recommendations you would like to make regarding the rehabilitation of Indigenous or First Nations people who have sexually offended? Please comment here:

.....
.....
SURVEY ENDS

Thank you for taking the time to complete this survey. It would be appreciated if you can forward the original email to people who can complete the survey.

If you would like to receive the outcomes of this study, please leave your email address below. Your email address will not be connected to your survey results.

.....

Appendix 7: Western Australia Letter



Government of Western Australia
Department of Justice
Western Australian Office of Crime Statistics and Research

All enquiries: Mr Lucas Sims
Phone: (08) 9264 6220
Email: RAAC@justice.wa.gov.au
Our Ref: F2023/16360

Mr James Finney
School of Arts and Humanities
Edith Cowan University
270 Joondalup Drive,
Joondalup, WA, 6027

Dear Mr Finney

PROJECT ID 510 – The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have Sexually Offended

Thank you for applying to the Department of Justice (the Department) to undertake the aforementioned research project.

The Department's Research Applications and Advisory Committee (RAAC) has considered your application, and I regret to inform you that your application has not been approved.

The application was not supported for the following reasons:

- The relevant business area indicated that the programs which the project seeks to evaluate are currently slated for replacement. Any information gained by the study would be from programs that the Department acknowledges are based on outdated evidence and were not specifically developed for Aboriginal men. As such, the Department's participation would not result in a reasonable contribution to the study.

The Department appreciates your interest in researching areas associated with the Department of Justice and values your application.

Please contact Mr Sims at RAAC@justice.wa.gov.au or (08) 9264 6220 if you have any queries.

Yours sincerely



Dr Shona Hyde
CHAIR, RESEARCH APPLICATIONS AND ADVISORY COMMITTEE

18 May 2023

cc Dr Natalie Gately, Senior Lecturer, Edith Cowan University

GPO Box F317 PERTH WA 6841
RAAC@justice.wa.gov.au
www.justice.wa.gov.au

Appendix 8: South Australia in Principle Approval

CEN/23/95561

OFFICIAL



Government of South Australia
Department for Correctional Services

/ June 2023

Offender Development
Directorate

400 King William Street
Adelaide SA 5000

GPO Box 1747
Adelaide SA 5001

Mr James Finney
Edith Cowan University
270 Joondalup Drive
Joondalup, Perth, WA 6027

Dear Mr Finney ,

Project Title: *The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have sexually offended: A meta-analysis*

I refer to your recent **Expression of Interest** application to conduct research with the Department for Correctional Services (DCS) entitled '*The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have sexually offended: A meta-analysis.*'

Your application was considered by the Department for Correctional Services (DCS) Research and Evaluation Management Committee (REMC) on Thursday 25 May 2023.

I am pleased to advise that your *Expression of Interest* has been granted **In Principle Approval**.

The REMC wishes to request the following to be clarified/confirmed in a full application:

- Please provide confirmation of Aboriginal ethics approval.
- Please advise how Aboriginal leadership is involved in the project.
- Please advise how Aboriginal Australian programs will be compared to First Nations programs for other countries, given the study spans across four countries.

To progress your application, you are invited to submit a Full Application (Appendix B – Attached) for the REMC's consideration.

A list of future meetings dates and respective application cut-off dates are listed below, so that you can plan for your submission to the REMC:

Application Closing Date	Meeting Date
6 July 2023	20 July 2023
31 August 2023	14 September 2023
2 November 2023	16 November 2023

Please note: meeting dates are subject to change based on the availability of committee members, and meetings may at times be delayed or facilitated out of session. Please be mindful that, as a result of this, communication to researchers regarding REMC outcomes can sometimes be delayed. Our Research Executive Officer will contact you as soon as practicable, to advise you of the committee outcomes.

If you have any queries in relation to your research project please feel free to contact the REMC Executive Officer on (08) 8226 9026 or DCSResearch@sa.gov.au.

When you are ready to submit your approved ethics application, please forward it to:
DCSResearch@sa.gov.au.

Yours sincerely,



Joanne McFarland
REMC Chair
A/Director, Strategic Policy, Projects and Partnerships
Offender Development Directorate
Department for Correctional Services, South Australia

Appendix 9: South Australia Approval to Conduct Research

OFFICIAL



Government of South Australia
Department for Correctional Services

Offender Development Directorate

400 King William Street
Adelaide SA 5000

GPO Box 1747
Adelaide SA 5001

Tel: 08 8226 9026
Fax: 08 8226 9226

www.corrections.sa.gov.au

July 2023

CEN/23/95562

Mr James Finney
Edith Cowan University
270 Joondalup Drive,
Joondalup, Perth, WA, 6027
Email: [REDACTED]

Dear Mr Finney,

Project Title: *The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have Sexually Offended: A meta-analysis.*

I refer to your recent full application to conduct research with the Department for Correctional Services (DCS), entitled '*The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have Sexually Offended: A meta-analysis*'.

The application was considered by the DCS Research and Evaluation Management Committee (REMC) out of session on Thursday, 20th July 2023.

I'm pleased to advise that your application received **Approval** from the committee.

Below is some feedback from the REMC members for your consideration:

- Please be aware that in South Australia, Aboriginal people refer to themselves as Aboriginal, not Indigenous nor Aboriginal and Torres Strait Islander. Changing the research's terminology to 'Aboriginal' will resonate more for the South Australian Aboriginal community.
- In reference to the wording of the survey, the REMC suggest that the term 'mental health professionals' in sections 18 and 19 be changed to more common terminology, such as psychologists or social workers. This may alleviate confusion for participants.
- It is unclear why prisons are not also included in the location options.

If you require any further assistance or have any questions, please contact the REMC Executive officer, Lilly Springbett, via email at dcresearch@sa.gov.au.

Yours sincerely,

[REDACTED]

Joanne McFarland
REMC Chair
A/Executive Director, Offender Development Directorate
Department for Correctional Services, South Australia

Appendix 10: Tasmania Approval to Conduct Research

Department of Justice

TASMANIA PRISON SERVICE

672 East Derwent Highway, Risdon Vale 7016

PO Box 24, Lindisfarne TAS 7015

www.justice.tas.gov.au



28 July 2023

Mr Finney



Dear Mr Finney,

Re: Request to conduct research – ‘The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have Sexually Offended

Thank you for your recent correspondence regarding undertaking research within the Tasmanian Prison Service (TPS). Your research proposal has been considered and a determination made regarding the TPS support of the project. It was decided that the project would be supported with a few conditions.

The conditions are:

1. You provide written notification of ethics approval and any subsequent amendments from the University and advise the TPS of any changes made to your study as part of gaining that approval or subsequent amendments;
2. You provide a copy of any publications or media releases to the Director or Prisons for approval prior to submission.
3. You provide a copy of your thesis/paper upon submission to the University in order to increase our knowledge of your study and the subject material.

Katie Duggan, Senior Clinician, Interventions Programs Unit will act as a point of contact for you. Please contact her at katie.duggan@justice.tas.gov.au if you need support in undertaking the research.

I wish you every success in your endeavours.

Yours sincerely,



Ian Thomas

DIRECTOR OF PRISONS

Appendix 11: Australian Capital Territory Approval to Conduct Research



ACT

Government

Justice and Community Safety

Mr James Finney
School of Arts and Humanities
Edith Cowan University

Via Email: [REDACTED]

Support to conduct surveys with ACTCS Staff involved in delivering the Sex Offender Treatment Program

Dear Mr James Finney

I write in response to your request, received on 14 June 2023, seeking support for ACTCS staff to participate in your research on sex offender treatment programs conducted in Australian correctional facilities.

I am pleased to provide support for your research, subject to you providing an approved ethics application or letter from the Chair of the Edith Cowan University Human Research Ethics Committee (HREC). Please provide this documentation to the Research and Evaluation Officer (ACTCS.Research@act.gov.au).

Ms Elisabetta Marin [REDACTED] Director of Programs and Interventions, is the main contact person who can facilitate the ACTCS' participation in your research on sex offender treatment programs.

Please note that it is a requirement of ACTCS that you agree to provide me with any reports or papers arising from the research (excluding your PhD thesis) for consideration, at least 30 days prior to any release or publication.

I look forward to hearing from the findings about your research and I wish you every success with your research.

Yours sincerely

[REDACTED]
Bruno Aloisi
Acting Commissioner
ACT Corrective Services

02 August 2023

Appendix 12: New South Wales Ethics Committee Clarification



Communities
& Justice

Corrective Services NSW

Level 4 West,
180 Thomas Street
Haymarket NSW 2000
GPO Box 31, Sydney NSW 2001
Tel 02 8346 1333
www.justice.nsw.gov.au

D2023/0860965

17 July 2023

James Finney
PhD Candidate
Psychology & Social Sciences (Criminology)
Edith Cowan University
270 Joondalup Drive
JOONDALUP WA 6027

By email [REDACTED]

Dear Mr Finney

I refer to your research application "The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have Sexually Offended: A meta-analysis" dated 31 May 2023.

The Corrective Services Ethics Committee (CSEC) has reviewed your application at its meeting on 29 June 2023. CSEC found that your proposed research is important and has merit. CSEC detailed the below concerns and decided to revisit your application at the next meeting on 24 August 2023. Please address the CSEC concerns in a response letter and revised application (track changes and clean):

1. Title: The term meta-analysis appears to be misleading as this commonly refers to existing robust studies in a field and their outcomes rather than just literature about programs. Please specify your understanding of a meta-analysis.
2. Clarify the relationship between the Australian survey study and the international component that appears to be based on a literature review only. Since First Nations are diverse, please specify what First Nations will be included.
3. Aboriginal Advisor Committee: Since the survey study is national and First Nations are diverse, CSEC requests to broaden indigenous oversight, consultation and expertise by adding Aboriginal people from other participating states to the advisory team, including NSW. Provide the Terms of Reference of the Aboriginal Advisory Committee once available.
4. Benefits: Outline how the study may benefit Aboriginal communities and people.
5. Literature review: Please elaborate the background section by providing a succinct overview of relevant research around treatment for Aboriginal sex offenders. A

reference list should be added. CSEC suggested that the work from Professor Douglas Boer may be relevant and useful (<https://researchprofiles.canberra.edu.au/en/persons/douglas-boer>).

6. Provide information how the qualification and expertise of the listed supervisors may guide this specific research project about the characteristics and effectiveness of sex offender treatment programs for Aboriginal people?
7. Recruitment: If the CSNSW chief psychologist is to send out an invitation e-mail to relevant staff, how is the implied potential for coercion being addressed? For example, by adding statements that participation is voluntary, will not affect their employment, and that the delegate will not know if the recipient participated or not. Ensure that the CSNSW recruitment strategy is consistent across all documents (see attached additional comments).
8. Please amend the email invite and PISCF according to the attached additional comments.
9. Survey: 30 minutes to complete the survey appears unrealistic and will take at least 1 hour. The survey needs to be thoroughly revised, including edits, numbering and type of questions. In particular, the value of questions about the perceived percentage of benefit participants may have received from the program is limited if not backed up with any data analysis (e.g. questions II.12, III1.1, III1.2, IV4c). Please see attached additional comments.

We look forward to receiving your response letter and revised application. If you have any questions in regard to this letter please do not hesitate to contact Dr Marc Torka on (02) 8346 1254 or [REDACTED]

Yours sincerely

[REDACTED]

Lance Smith
A/Executive Officer, Corrective Services Ethics Committee
A/Director, Corrections Research Evaluation & Statistics
Corrective Services NSW

Appendix 13: Victoria Outcome Letter



Department of Justice and Community Safety

Corrections Victoria

Level 22
121 Exhibition Street
Melbourne Victoria 3000
Telephone: (03) 8684 6600
Facsimile: (03) 8684 6611
justice.vic.gov.au
DX: 210085

Our ref: [CD/23/427214]

Mr James Finney
Edith Cowan University

Dear Mr Finney,

Outcome of CVRC Review 20 July 2023: Project not supported

Thank you for the submission of your application. Please find below a summary of the response of the Corrections Victoria Research Committee (CVRC).

Project Title: The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have Sexually Offended: A meta-analysis

Outline and context of the project:

This PhD research has set out to investigate the characteristics and effectiveness of treatment for Indigenous and First Nations People who have sexually offended across four major Western countries (Australia, New Zealand, Canada and the United States) by conducting three studies: (1) systematic review of the literature; (2) meta-analysis; and (3) survey of treatment programs in Australia. The study is currently seeking assistance with study three only (the survey). Study three seeks to acquire information to gain an in-depth understanding of sexual offender treatment programs that are specifically designed for, or include, Indigenous People who have sexually offended. Proposed participants are Victorian correctional services staff who facilitate sexual offender treatment programs and participants will be asked a range of questions pertaining to (1) the theoretical background of the program and its main aims; (2) administrative data; (3) program content; (4) process evaluation information; (5) outcome evaluation information.

CVRC decision: The CVRC acknowledges the long-term need for research in this important area. However, the CVRC identified the following significant issues with the proposed research:

- Victoria does not currently have any indigenous specific sexual offender treatment programs and only a very small number of Aboriginal and Torres Strait Islander participants in mainstream programs. The quantitative component of the survey is therefore unlikely to reveal statistically significant or generalisable results. The qualitative component is not significant or in-depth enough to provide a robust data set for useful analysis. It seems unlikely that the survey will yield enough data particularly for the scope of a doctoral research project.
- The clinicians delivering the program are unlikely to have access to the data you are seeking via the survey particularly regarding outcomes of participation. Additional data would have to be sought by clinicians to respond to the survey questions.

- The Forensic Intervention Services team who run these programs currently does not have capacity to collate the required information to support this research.

If you have any queries about this decision, please contact the CVRC Secretariat, Jenny Malone, at [REDACTED]

Yours sincerely



Anatolie Dwyer
Project Director, Offender Needs and Service Design
Chair, Corrections Victoria Research Committee
31/7/2023

Appendix 14: Queensland Approval to Conduct Research



OFFICIAL



Queensland
Corrective Services

Mr James Lewis Finney
Edith Cowan University
270 Joondalup Drive, Joondalup
Perth, Western Australia, 6027

15 September 2023

Dear Mr Finney,

Thank you for your application to undertake the research project titled *'The Characteristics and Effectiveness of Treatment for Indigenous and First Nations People who have Sexually Offended: A meta-analysis'*.

The role of the Queensland Corrective Services (QCS) Research and Evaluation Committee (the Committee) is to facilitate ethically sound research initiatives that further the Agency's commitment to community safety and crime prevention.

After detailed consideration, the Committee has decided to provide support to your research project. You will find a copy of the Researcher's Deed of Agreement and our Confidentiality and Data Management Agreement (CDMA) attached with this email. Please fill in details where necessary, print, sign and return this document electronically to the Research and Evaluation Group at research@corrections.qld.gov.au.

QCS will counter-sign the Researcher's Deed of Agreement and return one signed copy to you for your records. You may not commence your project until the Researcher's Deed of Agreement is signed by both parties.

Please note that any approval to conduct research is subject to operational environments in the proposed QCS business areas and/or Centres/Districts. Commitment may alter pending workload and operations. The dates and times of access to QCS facilities will need to be negotiated with the proposed QCS business area and/or each individual Centres/Districts and will be dependent on demands and staffing availability.

Should you have any questions, please do not hesitate to contact the Research and Evaluation Group on (07) 3565 7417 or at research@corrections.qld.gov.au.

Yours sincerely,

Tom Humphreys
Chair
QCS Research and Evaluation Committee

QCS Headquarters
Level 12 Northbank Plaza
69 Ann St Brisbane
Queensland 4001 Australia
Telephone +61 7 3565 7417
ABN 61 993 700 400

OFFICIAL

Appendix 15: Northern Territory Approval to Conduct Research

Hi James

Approval to conduct your research was given by the Senior Leadership Group and I have today asked that the work unit concerned make contact with you.

Regards

Steve Andrews
Executive Support Officer | Office of the Commissioner



Department of
THE ATTORNEY-GENERAL
AND JUSTICE

Floor 6 Heritage Building, 6 Knuckey Street, Darwin NT 0800
GPO Box 3196, Darwin NT 0801

t. **08 8935 7465**

w. NTCS.ExecCorrespondence@nt.gov.au

Appendix 16: General Information from Organisations

Variable	<i>N</i>	%
Gender		
Males only	7	58.3
Females only	0	0.0
Males and females	5	41.7
Age		
4–17	1 ^a	8.4
10–17	4 ^b	33.3
18 <	7	58.3
Regularly delivered program		
Yes	10	90.9
No	1	9.1
Prior offence history ^c		
Contact only	3	27.3
Non-contact only	0	0.0
Contact and non-contact	8	72.7
Methods to obtain participants		
Court referrals	2	7.7
Court order, diversion	4	15.4
Prison	7	26.9
Probation	2	7.7
Voluntary, self-referral	5	19.2
Other	6	23.1
Program funding		
State or territory government	10	83.4
State or territory government, Grants	1	8.3
Any service making a referral	1	8.3

Note. ^a This program permits the inclusion of people over the age of 17 years who have intellectual disabilities. ^b One other program occasionally includes young people up until the age of 21 years. ^c One program did not provide this information because they had only been operational for 8 months and had not yet collected enough data.

Appendix 17: Descriptive Information on Treatment Programs

Variable	<i>N</i>	%
Indigenous-specific program		
Yes	1	8.3
No	11	91.7
Program based on known programs		
Yes	10	83.3
No	2	16.7
Identified theoretical background		
Yes	?	?
No	?	?
Developers involved in delivery		
Yes	9	75.0
No	3	25.0
Developed program manual		
Yes	10	83.3
No	2	16.7
Developed training manual		
Yes	3	25.0
No	9	75.0
Developed assessment manual		
Yes	7	58.3
No	5	41.7
Developed management manual		
Yes	3	25.0
No	9	75.0
Organisation and contents of program structured		
No	0	0.0
Somewhat	10	83.3
To a great extent	2	16.7
Treatment Type ^a		
Culturally relevant treatment	6	12.8
Cognitive behavioural therapy	12	25.5
Multi-systemic therapy	6	12.8
Individualised treatment	8	17.0
Counselling	5	10.6
Psychosocial interventions	6	12.8
Non-psychosocial interventions	2	4.3
Other	2	4.3
Program tailored to learning styles and ability of participants		
Yes	8	66.7

Somewhat	4	33.3
No	0	0.0
Program length (weeks)		
1–25	1	8.3
26–52	5	41.7
52 <	2	16.7
No prescribed timeframe	4	33.3
Sessions required		
40–50	1	8.3
51–60	1	8.3
71–80	1	8.3
110–120	2	16.7
Varies significantly	7	58.3
Contact hours per week		
1–2	5	41.7
3–5	1	8.3
6–10	6	5.0
Length of treatment session (hours)		
One hour>	2	16.7
1–2 hours	1	8.3
2 and a half hours	3	25.0
2–3 hours	4	33.3
No specified timeframe	2	16.7
Session design ^b		
Single session alone	5	27.8
Group session alone	3	16.7
Mixed, single and group	6	33.3
Elder, Indigenous representative session	3	16.7
Family sessions	1	5.6
Group alone session size		
1–10	2	40.0
10 <	3	60.0
Indigenous representation in development		
Yes	6	50.0
No	6	50.0
Current treatment provider		
Psychologists, social workers	5	41.7
Correctional staff	2	16.6
Indigenous staff or Elders and professional	5	41.7
Need assessment undertaken		
Yes	12	100.0
No	0	0.0

Risk assessment undertaken		
Yes	11	91.7
No	1	8.3
Participant risk level		
High	2	18.2
Medium-high	7	63.6
Medium-low	1	9.1
Low-high	1	9.1
Risk assessment tool type ^c		
VRS-SO	3	23.1
Static-99/R	4	30.8
Stable-2007	1	7.7
Aim-3	1	7.7
RSVP	1	7.7
HCR-20	1	7.7
J-SOAP-II	1	7.7
ERASOR	1	7.7
Program location		
Adult prison only	6	50.0
Community only	4	33.3
Adult Prison or community	1	8.3
Juvenile Reform or community centre	1	8.3

Note. ^a Results do not equate to 100% as some organisations implement more than one therapeutic intervention. For example, some programs utilise elements of CBT, MST and cultural elements. ^b Results do not equate to 100% as programs varied significantly. For example, some programs had participants that went into a group-only stream, but also participants that were mixed in group and individual treatment sessions dependent on needs. ^c Some organisations use more than one risk assessment instrument.

Appendix 18: Evaluations of Treatment Programs

Variable	<i>N</i>	%
Outcome evaluation availability		
Outcome evaluation has been conducted	1	8.4
Evaluation is currently running	4	33.3
Evaluation is planned but not running	4	33.3
No formal evaluation is planned	3	25.0
Program evaluator type		
Internal unit in justice organisation	3	60.0
External unit (academic institution)	1	20.0
Program developers	1	20.0
Evaluation design		
Unsure, not a part of evaluation	1	25.0
Simple random including systematic sampling	1	25.0
Pre and post-comparison	1	25.0
Mixed methodology	1	25.0
Were the goals of the program met		
Perfectly	1	8.4
In some aspects	10	83.2
Not at all	1	8.4
Outcome variables ^a		
Sexual recidivism	4	30.8
Violent recidivism	2	15.4
Non-sexual, non-violent recidivism	3	23.1
Self-reported recidivism	0	0.0
Psychological measures	2	15.4
Behavioural Measures	2	15.4

Note. ^a Results do not equate to 12 because organisations used multiple outcome variables.

