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**Risk and Protective Factors for Violent Behaviour and Incarceration
for Indigenous and non-Indigenous Men in North Queensland**

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18 August 2018

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Statement of Contribution of Student

I, Bronwyn Honorato, declare that I have stated clearly and fully in the thesis the extent of any collaboration with others, and to the best of my knowledge and belief, the thesis contains no material previously published (including grey literature and online blogs, etc.) by any other person except where due acknowledgment has been made by including a Statement of Contribution of Others.

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Bronwyn Anne Honorato

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Abstract**Principal Objectives**

Very high rates of interpersonal violence and incarceration are reported for men in North Queensland, with very little empirical research existing investigating the factors influencing these phenomena. To investigate these factors, a two-phase exploratory research project was designed and implemented. Phase 1 included conducting in-depth interviews to gather qualitative data, which was then used to inform development of surveys used for Phase 2, the quantitative study.

Research question: “What are the risk and protective factors associated with perpetrating violence and incarceration for Indigenous and non-Indigenous men in North Queensland, Australia?”

The aims of the project were to explore factors for men in North Queensland that may be associated with an: (1) increase the risk of violent behaviour; (2) reduce the risk of violent behaviour; (3) increase the risk of incarceration; (4) reduce the risk of incarceration; and (5) that may differ for Indigenous compared with non-Indigenous men.

Methodology

Phase 1 included conducting in depth interviews with participants to provide qualitative data; while Phase 2, informed by the data from Phase 1, involved surveying a larger group of participants to enable quantitative analysis of data. A manager from Lotus Glen Correctional Centre (LGCC) was delegated to recruit inmates from within the prison. Eligibility criteria included being aged 18 years or over, able to read and write English, and sentenced or on remand for violent offences. Excluded were those with mental or physical health issues and if deemed unsuitable for any reason by the LGCC manager. Information sheets were provided to the inmates by the manager, and consent forms were signed. The researcher was then contacted to arrange a time to conduct data collection. A non-randomised recruitment method was used for community participants for Phase 1, as information was sought from a small, ‘expert’ group for whom the research question was significant. Snowball sampling was used to recruit survey participants for Phase 2. Eligibility for Phase 2 included being male, aged over 18 years, and residing or having grown up in North Queensland, including the Torres Strait Islands. Indigenous Australian research advisors were consulted to ensure cultural appropriateness for all phases of the project.

Phase 1. Using an Interpretative Phenomenological Analysis (IPA) framework, interviews were conducted, then transcribed verbatim. Data was managed and coded using NVivo software.

Phase 2. The survey was developed using demographic information, interview data from Phase 1 and existing research. The online survey (including information sheet and electronic consent) was accessed by community participants via SurveyMonkey, while prison inmates completed a paper survey. Univariate and multivariate logistic regressions were used to estimate odds ratios (ORs) for each independent variable for violent compared with non-violent and incarcerated compared with non-incarcerated participants. Cross tabulations were used to determine if differences in significant associations existed for Indigenous and non-Indigenous participants between both of the dependent variables and each categorical independent variable.

Results

Phase 1. The sample included 26 Indigenous and 13 non-Indigenous Australian participants, including 19 prison inmates. Overall, for Indigenous participants, and for incarcerated participants adverse family and childhood factors were the most influential category of risk factors for violent behaviour and incarceration, while socio-economic factors were the most important theme for non-Indigenous participants. The next most important themes were personal attributes, socio-economic factors, witnessing or a history of violence, and peer group and social influences. Non-Indigenous participants also frequently mentioned substance use and abuse. Overall, the most common protective factor themes were having good role models and mentors. Next were personal attributes, family and childhood factors, coping skills, and socio-economic factors. For Indigenous participants extracurricular activities were commonly mentioned, while non-Indigenous participants believed socio-economic factors were very important.

A common trajectory from trauma to incarceration was also identified for a sample of incarcerated participants (n=11) during this study. This trajectory, while not identified as a causal path for violence or incarceration per se, included childhood or adolescent trauma, a lack of support or treatment for trauma, substance abuse to mask the pain, and a 'brain snap' (sudden action, without conscious thought) precipitating a violent offence, resulting in incarceration.

Phase 2. The survey was completed by 85 men (of whom 30 were Indigenous) from North and Far North Queensland, including 37 inmates, and 48 community members. Frequent cannabis use increased the risk of perpetration of violence towards others, while a higher education level reduced the risk. When comparing cultural groups, significant associations were revealed for both alcohol and cannabis use with violence for non-Indigenous, but not for

Indigenous participants. Cannabis use and religious beliefs increased the risk of incarceration, while higher education levels, positive childhood events and being in a relationship were protective. Comparison of cultural groups revealed significant associations between religious beliefs and incarceration for Indigenous but not for non-Indigenous participants. Alcohol and cannabis use were significantly associated with incarceration for non-Indigenous, but not for Indigenous participants.

Principal Conclusions

This is one of the first explorative studies of this kind conducted in North Queensland, with Indigenous and non-Indigenous Australians, including prison inmates. Early intervention and treatment efforts focusing on young males, particularly users, or those at risk of using cannabis, could help to reduce violence and incarceration rates for future generations. The use of culturally appropriate assessment tools is also critical, as many tools are not validated for use with Indigenous Australians, or with prison inmates. This would aid diagnosis, treatment plans and, for inmates, rehabilitation management.

The importance of social determinants, including childhood upbringing and experiences, and education to a tertiary or vocational level are highlighted in this study. The socioeconomic indicators of regional and remote communities, particularly Indigenous communities, are often far worse than urban populations, with little or no constructive economic activity, educational, or employment options available. Assisting men to gain meaningful employment, identifying needs, and developing individual strengths to reduce violent behaviour and incarceration may allow more men to become constructive, functioning contributors to society. Breaking the cycle of violence and incarceration for these men requires the public health community, educators, legislators, community leaders and young people to work towards reducing risks and increasing strengths and presenting alternate pathways for disadvantaged young people.

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Abbreviations

ABS	Australian Bureau of Statistics
AIC	Australian Institute of Criminology
ANZSOC	Australian and New Zealand Standard Offence Classification
ARIA+	Accessibility/Remoteness Index of Australia
BFI-10	Big Five Inventory – 10 Items
BPRS	Brief Psychiatric Rating Scale
DSM	Diagnostic and Statistical Manual of Mental Disorders
DV	Dependent variable
EST	Ecological systems theory
IPA	Interpretative phenomenological analysis
IV	Independent variable
JCU	James Cook University
kms	Kilometres
LGCC	Lotus Glen Correctional Centre
MRA	Manager – residential accommodation
NSW	New South Wales
NT	Northern Territory
OR	Odds ratio
PAF	Principal Axis Factoring
QCS	Queensland Corrective Services
QLD	Queensland
RA	Remoteness Area
RCIADIC	Royal Commission into Aboriginal Deaths in Custody
SA	South Australia
TAFE	Technical and Further Education
USA	United States of America
VIC	Victoria
WA	Western Australia

Overview of Thesis Chapters

Chapter 1 Introduction and Theoretical Perspectives

Part A of Chapter 1 includes the introductory material, describing the overall purpose of the thesis, followed by an overview of each of the eight chapters. The research question and aims of the study, and background to the research topic are then introduced. This includes discussions of violent behaviour and violent offending for Indigenous (Aboriginal, Torres Strait Islander, or both) and non-Indigenous men in Australia, with a focus on men from the north and far north regions of Queensland (referred to as *North Queensland* throughout the thesis). A summary of the Australian and New Zealand Standard Offence Classification (ANZSOC) crime categories is also provided. A discussion on rates of incarceration for Indigenous and non-Indigenous Australians is then presented.

Part B of Chapter 1 contains the theoretical background relating to violence and incarceration in Australia. Bronfenbrenner's ecological systems theory (EST) (Bronfenbrenner, 1979) is explained, as this theory will be used to explore how the different factors interact in the Discussion chapter (Chapter 7) of the thesis.

Chapter 2 Literature Review

Chapter 2 includes a comprehensive review of Australian research studies investigating risk and protective factors for violent behaviour and incarceration for Indigenous and non-Indigenous men in Australia.

Main Findings

Following an online database search, eight papers were identified for inclusion in the review of Australian literature relating to risk and protective factors for violence and incarceration for Australian men. Risk factors identified for non-Indigenous men for violent behaviour included substance abuse, family problems, low education levels, economic disadvantage, previous violence and incarceration, exposure to violence as a child, head injury and mental health disorders. Risk factors for violent behavior for Indigenous men included conduct disorder, historical factors and jealousy. Protective factors against violence for non-Indigenous men included emotion control, secure attachment to their mother, and educational attainment; while shame was identified as a protective factor against violent behaviour for Indigenous men.

There were no risk factors reported for incarceration for non-Indigenous men, however having a parent previously incarcerated was a risk factor for incarceration for Indigenous men. There were no protective factors against incarceration reported in any of the studies reviewed for non-Indigenous or Indigenous Australian men.

The lack of Australian empirical research into these factors warrants further investigation; especially in the north of Australia, where high rates of violence and incarceration exist. As this review highlights, research into both risk and protective factors for men in these locations is currently inadequate. Identifying significant influences early on in life and implementing early intervention and education programs can assist to halt or reduce high rates of violence and incarceration rates for future generations. The paper detailed below, reporting on the results from this literature review, was adapted for inclusion in this chapter.

Paper 1. Risk and Protective Factors for Violent Behaviour and Incarceration

Honorato, B., Caltabiano, N., Clough, A.R. Risk and protective factors for violent behaviour and incarceration for Australian men – A literature review. *Trauma, Violence and Abuse*, submitted.

Chapter 3 Methodology

A detailed methodology for the two phases of the study is described in Chapter 3. Phase 1 comprised qualitative research, with interviews conducted with inmates at Lotus Glen Correctional Centre (LGCC), and with community members from North Queensland. The aim of this phase was to capture and explore experiences and opinions relating to violent behaviour and

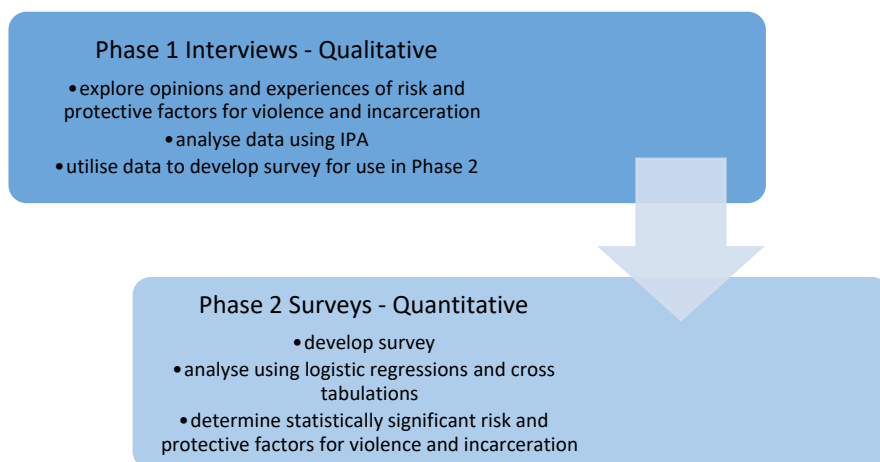


Figure 1. Stages and methodology used for the research project

incarceration for men in North Queensland. The second component was the quantitative study, Phase 2, whereby 85 men completed surveys exploring the main risk and protective factors for violent behaviour and incarceration for men in North Queensland. Figure 1 outlines the overall methodology for the study.

Chapter 4 Qualitative Research

Chapter 4 describes Phase 1, the qualitative interview stage of the research project, in detail. Firstly, Part A is an overall discussion on the main themes and findings of the research study with the sample of 39 participants. Following this, Part B presents an adapted version of the published paper detailed below, including findings from interviews conducted with eleven participants from LGCC.

Main Findings

Data for the qualitative phase was analysed using Interpretative Phenomenological Analysis (IPA) (Smith, 2004) to explore and record the main themes derived from the interviews. The most frequently mentioned risk factor themes included negative family and childhood experiences, personal attributes, negative peer group, and previous violence or witnessing violence. Protective factors included having good role models and mentors, positive personal attributes, positive family and childhood experiences, and socio-economic factors.

One of the main observations made during the data analysis stage was the existence of a trajectory, or a common progression from childhood trauma to incarceration, as described by eleven of the inmates. Paper 2, included in this chapter, reports on this trajectory, which included the following elements: childhood trauma - either personal or witnessed/endured by the family or an individual family member; a lack of support or mental health treatment to deal with the trauma; the participant turning to substance abuse to mask, or cope with the pain; then lashing out, having a 'brain snap' or 'losing it' and violently assaulting another person or persons; ultimately resulting in their incarceration.

Paper 2. From Trauma to Incarceration

Honorato, B., Caltabiano, N. & Clough, A.R. (2016). From trauma to incarceration: Exploring the trajectory in a qualitative study in male prison inmates in North Queensland, Australia. *Health and Justice*, 4(3). doi.10.1186/s40352-016-0034-x.
<http://www.healthandjusticejournal.com/content/4/1/3>

Chapter 5 Quantitative Research - Violence

Reporting on the survey data, Chapter 5 describes results of Phase 2, the quantitative phase of the project, detailing the statistically significant risk and protective factors for violent behaviour for men in North Queensland.

Main Findings

A self-report survey was completed by both Indigenous ($n = 30$) and non-Indigenous ($n = 55$) Australian men from North Queensland. Just under half of the participants ($n = 36$) were prison inmates, while the remainder were recruited from regional and remote towns and communities in North Queensland. Logistic regressions revealed that frequent cannabis use predicted perpetration of violence towards others; while education to Technical and Further Education (TAFE), trade or tertiary level reduced the risk. Treatment efforts focusing on young males, particularly frequent cannabis users or those at risk of using cannabis, could help to reduce high rates of violence in these disadvantaged populations. Education and training to a higher, or vocational level may reduce violent behaviour for individuals in the longer term. Paper 3 reports on these findings in detail and was adapted for inclusion in Chapter 5.

Paper 3. Exploratory Study of Risk and Protective Factors for Violent Behaviour

Honorato, B., Caltabiano, N., & Clough, A.R. An exploratory study of risk and protective factors for the perpetration of violence towards others by men in North Queensland, Australia. *Victims and Offenders*, submitted.

Chapter 6 Quantitative Research - Incarceration

Chapter 6 provides a continuation of the results and discussion of the quantitative survey data, this time regarding statistically significant risk and protective factors for incarceration for men in North Queensland.

Main Findings

Frequent cannabis use and religious beliefs were found to increase the risk of incarceration in the study sample ($n = 85$), while higher education, positive childhood events, and being in a relationship were protective against incarceration. Intervention focusing on young male cannabis users, or those at risk of using cannabis, could help to reduce high rates of incarceration in this unique population. Practical education and training options, and relationship support and education, would assist to reduce future incarceration. Further investigation is

required into the association between religion and risk of incarceration in this population. Paper 4, as detailed below, has been incorporated into Chapter 6.

Paper 4. Risk and Protective Factors Towards Incarceration

Honorato, B., Caltabiano, N., & Clough, A.R. Exploring risk and protective factors towards incarceration for men from North Queensland, Australia. *Journal of Experimental Criminology*, submitted.

Chapter 7 Discussion and Conclusions

Chapter 7 provides a synthesis of Chapters 1 to 6, including a discussion and overview of challenges for data collection, collaboration with Indigenous Australian research staff and practicalities of conducting research in these settings. A discussion of the main findings of the two research components, Phase 1, the qualitative study, and Phase 2, the quantitative study follows. The validation study is then briefly discussed. Interwoven through the discussion will be the various systems of Bronfenbrenner's ecological systems theory, and how they relate to the study findings. Limitations of the research are then presented, along with recommendations for future research. An overall conclusion is presented to finalise this chapter.

An overview of each chapter of the thesis has been discussed, therefore the first of the main thesis chapters is presented next. Chapter 1 includes an introduction to the topics of violence, incarceration and risk and protective factors; along with a discussion of the theoretical framework (EST) that may be used to relate the findings of this research to.

Chapter One: Introduction and Theoretical Perspectives

1.0 Background

1.0.1 Importance of Study

In the past, academia and government/public policy makers have had a narrow focus on particular types of violence, including sexual violence, and domestic and family violence. This has resulted in other forms of physical violence being somewhat overlooked (Australian Bureau of Statistics [ABS], 2017b; Australian Institute of Criminology [AIC], 2015b). Very little empirical research exists investigating risk and protective factors pertaining to violent behaviour and incarceration with men from North Queensland. This is despite the extremely high rates of violence and incarceration in this region. When discussing violence in Australia and North Queensland, there must also be a discussion on violence in Indigenous communities, as in many regional and remote areas of northern Australia, there are very high rates of violence reported. While there has been a recent increase of recognition into the pervasiveness and effects of violence in Indigenous Australian communities, conventional literature has only recently begun to present limited understandings of the trajectories and contexts of violence within Indigenous Australian society (Adams et al., 2017).

There are some key differences for socio-economic and other indicators that may have an effect on rates of violent behaviour and incarceration in North and Far North of Queensland, compared with both Queensland and Australia as a whole (see Table 2 and section 3.0.4, Chapter 3 for a more comprehensive discussion of these). For example, the majority of people in Far North Queensland live in very remote areas (RA5), compared with the rest of Queensland; and are situated within the most disadvantaged SES quintile in Australia (QGSO 2016, 2018). Further, median household incomes are much lower and unemployment rates are much higher in Far North Queensland compared with other regions of Queensland and Australia (QGSO 2016, 2018). While the completion rate for Year 11 or 12 was less varied across regions, it was still lower for Far North Queensland and North Queensland compared with Queensland and Australia as a whole (QGSO 2016, 2018). A greater percentage of Indigenous Australians also reside in North and Far North Queensland compared with Queensland and Australia (QGSO 2016, 2018).

Non-indigenous Australians were incarcerated at a rate of 175.1/100,000 in Queensland, and 164/100,000 in Australia in 2016 (rates not available for North or Far North QLD). Indigenous people were incarcerated at much higher rates in North Queensland and Australia overall compared to non-Indigenous Australians (ABS, 2015, 2016c; AIC, 2018). Further, up to 71% of prison inmates in Far North Queensland at any one time identify as Indigenous Australian (QCS, 2015). Rates for Offence against person were also extremely high in Far North Queensland (up to 11886/100,000 per adult population in some regions), which is 9 times higher than North Queensland, and 16 times higher than both Queensland and Australian rates (AIC, 2018). This clearly indicates that compared to the rest of Queensland and Australia, the population of North and Far North of Queensland face many disadvantages and challenges that the rest of the country may not experience. These differences likely have a direct effect on the kinds of risk and protective factors towards both violent behaviour and incarceration that may be significant within this population and may be distinct from factors for people in other areas of Australia.

There has been much research conducted within development and life-course criminology on risk-based explanatory models of why individuals commit crime (Farrington, Piquero & DeLisic, 2016). There is an increased interest in investigating why individuals abstain from crime, despite childhood adversities, or on 'turning points' enabling individuals to overcome their delinquent lifestyles (Farrington et al., 2016). Despite exposure to a multitude of risk and protective factors, there are many people, including Indigenous and non-Indigenous Australians who do not commit violent offences or become incarcerated. Research that identifies the core basis of violence and incarceration, and the examination of what stops and inhibits offending is required urgently (Tomison, 2010).

It is important to ask perpetrators of violence, their families, community members, and other stakeholders, who have firsthand experience of violent behaviour and incarceration, about what they perceive the risk and protective factors for these outcomes to be. This enables a thorough investigation into the root causes, coming from those directly involved, who have the most expert and current knowledge on the issues. As various theories of criminology and human behaviour development suggest, there are many types and levels of risk and protective factors at play that may or may not lead an individual to engage in violent behaviour and become incarcerated. With this knowledge, early intervention for people at risk of perpetrating violence, and of becoming incarcerated, may be applied.

1.0.2 Research Outline

To increase knowledge in this under-researched area and explore the significant factors for the perpetration of violence and incarceration in North Queensland, an exploratory research project was designed and implemented. This study was one of the first of its kind to be conducted in very challenging and hard to reach populations – violent prison inmates, and members of rural and remote Indigenous Australian communities of North Queensland. Perpetrators of violence were given the opportunity to convey their personal experiences and advise what they thought the pertinent risk and protective factors were that resulted in their violent behaviour and incarceration. Along with the perpetrators, other key members of the region, including people from rural and remote Indigenous communities, were invited to participate in the study. Participants including Indigenous Australian Elders, magistrates, school principals, psychologists and community members, were asked to impart their vast professional and personal knowledge relating to the perpetration of violent behaviour and high rates of incarceration for men in North Queensland.

The overall research project was comprised of two main components, Phase 1 and Phase 2. The first phase was a qualitative study, whereby in-depth interviews were conducted with Indigenous and non-Indigenous inmates and community members from North Queensland. The purpose of the interviews was to determine what the most important risk and protective factors were for the perpetration of violent behaviour and for incarceration for men in this region. Phase 2 involved developing a survey, which incorporated the findings from the interviews in Phase 1. The survey was distributed within the correctional centre and to participants from the wider community. Quantitative analysis to explore the significant risk and protective factors regarding violent behaviour and incarceration for men in North Queensland was then conducted.

1.0.3 Research Aims and Objectives

Research Question:

“What risk and protective factors are associated with perpetration of violent behaviour, and for incarceration for men in North Queensland, Australia?”

Specific Aims:

The specific aims of the research study were to explore, for men in North Queensland:

- Factors that may be associated with an increase in the risk of violent behaviour;
- Factors that may be associated with a reduction of the likelihood of engaging in violent behaviour;
- Factors that may be associated with an increase in the risk of incarceration;
- Factors that may be associated with a reduction in the likelihood of incarceration; and
- What differences, if any, exist in associations between these factors for Indigenous compared with non-Indigenous men.

1.1 Theoretical Framework

The theoretical framework which will be explored in relation to the findings of this study is Bronfenbrenner's EST (Bronfenbrenner, 1994). This theory is discussed in detail in Chapter 1, Part B, and summarised here.

American psychologist, Urie Bronfenbrenner, formulated the ecological systems theory to explain how the intrinsic qualities of a child and their environment interact and influence how they grow and develop. Bronfenbrenner stressed the importance of studying a child's development in the context of multiple environments (or ecological systems). The environments/systems include: the most intimate home ecological system, the *individual*, incorporating the child's age, sex, health; the *microsystem*, including, for example, school and peers; the *mesosystem*, which is the relationship between microsystems; the *exosystem*, which includes neighbours and local politics; and the *macrosystem*, the broadest system including society and culture. Each of these systems interact with, and influence each other, in every aspect of a child's life, across time, which Bronfenbrenner termed the *chronosystem* (Bronfenbrenner, 1994; The Psychology Notes Headquarter [TPNH], 2016).

1.1.1 Ecological Systems Theory in Relation to the Current Study

EST emphasises that interventions to reduce violent behaviour need to target the individual, their broader family, community, culture and society. EST is, therefore, an important theory to relate to the current study, as depending on which factors are associated with violent behaviour or incarceration, the most influential systems can be discovered at an individual level. Rather than looking for a single reason for violent behaviour and incarceration, the interaction of various factors should be investigated, as exploring these is more logical and effective than searching for a single cause (Zubrick & Robson, 2003). A comprehensive, holistic, multi-faceted approach to identifying risk and protective factors for violent behaviour and incarceration is needed, in an attempt to reduce the high levels of violence and incarceration for future generations of Australian men, including Indigenous Australians (Dawes, Davidson, Walden & Isaacs, 2017; Memmott, 2010; Memmott, Stacy, Chambers, & Keys, 2001). Part A of Chapter 1 will now be presented, commencing with a discussion on rates of violence in Australia and Queensland, followed by a discussion of incarceration rates in Australia and Queensland.

1.2 Part A: Introduction

1.2.1 Offence Classifications in Australia

ANZSOC Classification

ANZSOC is a systematic ordering of criminal offences, as defined in the criminal laws of the Australian state and territory jurisdictions. It is also used in New Zealand. An offence is defined as: “any criminal act or omission by a person, persons, organisation or organisations for which a penalty could be imposed by the Australian legal system or the New Zealand legal system” (ABS, 2011a, para. 4). The following six divisions of the ANZSOC are classified as *offence(s) against person* and relate to culpable (intentional, negligent or reckless) acts that result in harm, including physical injury/violation, or non-physical harm, and must affect a specific person.

- Division 01: Homicide and related offences;
- Division 02: Acts intended to cause injury;
- Division 03: Sexual assault and related offences;
- Division 04: Dangerous or negligent acts endangering persons;
- Division 05: Abduction, harassment and other offences against the person; and
- Division 06: Robbery, extortion and related offences.

The primary basis distinguishing these divisions is the nature and degree of harm, while the secondary basis is whether the act was intentional or negligent. Violent offences, referred to throughout this thesis, are primarily those included in Division 02, *Acts intended to cause injury*: “acts, excluding attempted murder and those resulting in death (Division 01), which are intended to cause non-fatal injury or harm to another person and where there is no sexual or acquisitive element” (ABS, 2011a, para. 1).

1.2.2 Violent Behaviour

Violent behaviour against individuals can take many forms, and may be linked to substance use, domestic situations, and many other crimes such as robberies. At its extreme, violence results in physical assault, sexual assault and homicide (AIC, 2015b). According to the Australian Bureau of Statistics (ABS) Personal Safety Survey, in 2016, 4 in 10 men (41% or 3.7

million) and 3 in 10 women (31% or 2.9 million) had experienced physical violence from the age of 15 years (ABS, 2017d). Further, an estimated 989,500 (5.4%) persons aged 18 years and over reported experiencing violence in the 12 months prior to the 2016 ABS survey (ABS, 2017d). Men were more likely than women to experience violence. An estimated 6% of men (543,900) reported experiencing violence in the 12 months prior to the survey, compared with 4.7% of women (444,700). The types of violence reported include both physical and sexual violence. Of these, physical assault was reported by 3.4% of men (309,400) and 2.7% of women (253,600) (ABS, 2017d).

Overall, assaults make up the majority of recorded violent crimes in Australia, with a 55% increase recorded between 1996 and 2007, and a 44% increase from 2010 to 2012 (AIC, 2015b). It is estimated, however, that around two-thirds of Australians who experienced physical assault by a male (from the age of 15) did not report the most recent incident to police (69% or 908,100 men and 69% or 734,500 women) (ABS, 2017d).

Offence Against Person

As described in section 1.2.1), offence against person includes the offence categories of Homicide and related offences; Acts intended to cause injury; Sexual assault and related offences; Dangerous /negligent acts; Abduction / harassment; and Robbery/ extortion. In 2017, rates of OAP in Australia were around 751 per 100,000 of the adult population, while for Queensland, the rate was slightly lower at 730 per 100,000 (ABS, 2018; QGSO, 2018). In North Queensland, OAP rates range from 1294 to 1472 per 100,000 adult population. In Far North Queensland, however, rates of OAP range from around 1252 to 11,886 per 100,000 of the adult population, depending on the geographical location in question (ABS, 2018; QGSO, 2018).

Acts intended to cause injury in the Australian population. Overall, acts intended to cause injury was the most common offence type and charge for Australian prisoners in 2013/2014. Acts intended to cause injury accounted for 17% of the total offences in 2013/14, increasing to 22% of the total offences in 2016 (ABS, 2014a, 2017c). Further, the number of offenders with a principal offence of acts intended to cause injury increased by 5% between 2014 and 2016, from 72,475 to 75,974 offenders (ABS, 2017c). The sub-category of *assault*, the direct infliction of force, injury or violence upon a person, including attempts or threats, is included within the category of acts intended to cause injury (AIC, 2015c). Assault accounted for 93% of the charges under acts intended to cause injury from 2014 to 2016 (ABS, 2017c).

Acts intended to cause injury in Indigenous Australian populations. It is reported that rates of violence among Indigenous Australians in some regions and remote areas, such as northern Australia, are disproportionately higher and increasing, compared with rates for the Australian population as a whole (Hunter & Onnis, 2015; Memmott et al., 2001). Indeed, as of June 2016, acts intended to cause injury comprised 33% of all offences for Indigenous Australian offenders, almost double the rate (17%) for non-Indigenous offenders (ABS, 2014a, 2016b). It has also been argued that Indigenous offenders differ from non-Indigenous offenders in several ways. Indigenous offenders tend to begin offending at a younger age, have more frequent and shorter time periods between contacts with the criminal justice system, and have longer histories of juvenile detention and adult incarceration (Allard, 2010; Joudo, 2008; National Indigenous Drug and Alcohol Committee, 2013). High rates of incarceration for Indigenous Australians are likely a direct reflection of the higher rates of violence and offending reported in many communities and may also reflect direct and indirect discrimination within the criminal justice system (Anthony, 2010; Memmott et al., 2001).

1.2.3 Risk and Protective Factors for Violent Behaviour

Risk factors are those influences that may increase the likelihood that an individual or group will engage in adverse behaviours (Chapman, Buckley, Sheehan, Shochet, & Romaniuk, 2011; Hawkins, Catalano, & Miller, 1992; Izard, 2002; Kelly, Dudgeon, Gee, & Glaskin, 2009; Walsh, 2007). Although not considered to be on the opposite continuum to risk factors as such, protective factors can decrease or moderate the likelihood of problem behaviours such as violence, or reduce and even prevent exposure to risk factors for these behaviours (Centres for Disease Control and Prevention, 2016; Jessor, Turbin, & Costa, 1998; Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995; Kelly et al., 2009; Lochner & Moretti, 2001; Luthar & Zelazo, 2003; Werner, 1995). It is understood that many individual, social and environmental risk and protective factors interact and contribute to an individual's long-term development and wellbeing (Hemel, Lincoln, & Herd, 1999; Kelly et al., 2009). To gain an understanding of the reasons behind violent behaviour, both risk and protective factors must be considered.

Rather than remaining static, the cumulative total and timing of adverse factors interact over time with each other, and with positive factors to produce an outcome (Bronfenbrenner, 1979, 1994; Hemel et al., 1999). While both risk and protective factors interact with demographic variables in predicting outcomes such as violence (Aisenberg & Herrenkohl, 2008; Resnick et al., 1997; Turner, Norman, & Zunz, 1995), protective factors are thought to make a more profound

influence on the life course of individuals who grow up in adversity, than do specific risk factors or stressful life events (Werner, 1995). Further, risk and protective factors for violence and incarceration do not necessarily possess the same meaning or significance for all individuals (Homel et al., 1999; Zubrick et al., 2010).

Risk and Protective Factors for Indigenous Australians

Indigenous Australian men face a higher risk of perpetrating violence and becoming incarcerated compared with other Australians (Weatherburn, Snowball, & Hunter, 2006). Risk factors for violent behaviour and incarceration may differ for Indigenous Australians compared with non-Indigenous Australians, regarding the type of factors, their importance, meaning and nature (Dawes et al., 2017; Zubrick et al., 2010). For example, basic notions of what constitutes violence may differ in Indigenous communities, with inter-clan rivalries and large family groups involved in violent incidents being more typical in Indigenous than in non-Indigenous communities (Atkinson, 1994, 1996).

Indigenous culture and racial bias in the criminal justice system have been reported as risk factors for violent behaviour and incarceration (e.g. People, 2005), however, these findings have not been supported in other studies (Snowball & Weatherburn, 2006). Responses to racism, conflicting demands of communication across different cultures, and forced removals from family are risk factors that are relevant to Indigenous Australians in particular (Homel et al., 1999; Langton, 1988; Weatherburn et al., 2006; Wundersitz, 2010). Further, the main risk factors for violent behaviour for Indigenous Australians likely include alcohol and illicit drug use, gender, age, childhood experiences of violence and abuse, exposure to pornography, low levels of education, low income, lack of employment, unstable housing, poor physical and mental health, geographic location, and lack of access to services (Wundersitz, 2010). According to Wundersitz (2010), based on existing evidence however, alcohol is likely to be the main contributing factor, over and above structural factors such as socioeconomic disadvantage. Wundersitz also highlighted the lack of empirical studies that have investigated factors for violent behaviour for Indigenous Australians.

Unique protective factors, that enhance and promote resilience in the face of overwhelming adversity, are also thought to exist for Indigenous Australians (Langton, 1988; Shepherd, Delgado, Sherwood & Paradies, 2017). These may include cultural resilience (Langton, 1988), cultural engagement (Shepherd et al., 2017), and stronger adherence to traditional lifestyle and culture (Zubrick & Silburn, 2006). While there are countless risk and protective factors that could contribute to or reduce the development of adverse behaviours including the

perpetration of violence towards others, the following are some of the more common factors that identified in previous studies.

1.2.4 Risk Factors for Violent Behaviour

Factors that have been found to predict the perpetration of violent behaviour include being a victim of child or adolescent abuse, substance use in adolescence, poor quality adolescent peer networks, poor relationships with parents in childhood and adolescence, witnessing parental violence, and low socio-economic status (Costa et al., 2015). Research also shows males are more often the perpetrators of violence than women, both overseas and in Australia (Baxendale, Lester, Johnston, & Cross, 2015; Torok, Darke, & Kaye, 2012). Being of a younger age group has also been linked to violent offending in Australia. For example, individuals aged 20 to 39 years were identified as a high-risk cohort for perpetrating violence, according to People (2005).

Substance abuse is a common risk factor for aggression and violent behaviour and offending that often leads to incarceration. Findings from laboratory and empirical studies support a strong temporal association between substance abuse and violence, with the use of alcohol and drugs consistently occurring prior to or during the commission of many violent events (Boles & Miotto, 2003; Wolf, Gray & Fazel, 2014). The relationship between substance abuse and violence is exceptionally complex and moderated by a host of factors within the individual and their environment. However, there is strong evidence for a subset of substance users who exhibit violent behaviour to have a predisposition to aggressiveness starting in childhood (Boles & Miotto, 2003). Violent behaviour and alcohol misuse have been consistently linked in international and Australian research, indicating the issue is consistent throughout the world (Day, Breetzke, Kingham, & Campbell, 2012; Ezzati et al., 2006; Giancola et al., 2003; Kenny & Lennings, 2007a; Lunetta, Penttila, & Sarna, 2001; Public Health Association of Australia, 2014; Rossow, 2001; Rossow & Bye, 2013; Wolf et al., 2014). Alcohol is regarded as one of the main contributors to substance-related violent death, with a positive correlation found between total volume of alcohol sold and rate of fatal assaults (Rossow, 2001; Rossow & Bye, 2013). In Australia, alcohol is also the primary substance involved in street violence, diminishing the user's control of aggressive behaviour, often with fatal results (Darke, 2009; Pilgrim, Gerostamoulos, & Drummer, 2014). Australian research shows that increases in violent crime are consistent with increased use of alcohol, and vice versa (Darke, 2009).

Cannabis has typically been considered a soft, or non-addictive drug (Murray, Morrison, Henquet, & Forti, 2007), with early research concluding it did not precipitate violence for most people who used it either occasionally or chronically (Abel, 1977). Indeed, an early ethnographic study of the effects of marijuana smoking on human social behaviour suggested that cannabis users were calm, passive and harmonious with society (Pliner, Cappell, & Miles, 1972). More recently, behaviours potentially triggering violence have been associated with cannabis use, including cannabis-induced psychosis and paranoia (Hall, Degenhardt, & Lynskey, 2001; Moss & Tarter, 1993). Symptoms of cannabis withdrawal including both irritability and aggression, may also precede violent behaviour (Budney & Hughes, 2006; Coffey et al., 2002; Sherman & McRae, 2016). There is also some evidence that cannabis may be used as a form of *self-medication* by some individuals who have a tendency towards violent behaviour (Lee, Sukavatvibul, & Conigrave, 2015). Indeed, cannabis use has been found to alleviate various psychological distress symptoms including intrusive thoughts and memories, and anger (Tull, 2018), and enhance relaxation (Turner, Mota, Bolton & Sareen, 2018). The concept of self-medication is discussed in further detail in Chapter 4.

Another major risk factor for violent behaviour for many young men, regardless of cultural background, is trauma (Carlson & Shafer, 2010; Spatz Widom & Wilson, 2015; Walsh, 2007). Types of trauma include physical illness or injury, harm, disability, torture, incarceration or persecution, relationship dissolution, job loss, migration and relocation, violence, and sexual abuse (Walsh, 2007). There is some evidence that childhood trauma is a determinant of aggression in incarcerated populations. For example, in an Italian study of 540 prisoners, Sarchiapone, Carli, Cuomo, Marchetti and Roy (2009) concluded that childhood trauma represented a developmental determinant that may interact with genetic factors to predispose prisoners to aggression. Further study is required, however, to generalise these findings to a wider, non-forensic, mixed-gender population.

A strong positive relationship between adverse and stressful childhood experiences and environments, and violent behaviour later in life, has been well established in overseas literature (Miller et al., 2011; Reavis, Looman, Franco, & Rojas, 2013; Silver & Teasdale, 2005; Tarabah, Badr, Usta, & Doyle, 2015; van Dorn, Volavka, & Johnson, 2012). A dose-response relationship is also evident, whereby multiple exposures to early life stressors, including experiencing and witnessing violence, may lead to structural changes in the brain, and play a role in the perpetration of future violent behaviour (Anda et al., 2006). Reinforcing this dose-response concept, a recent study in the Netherlands showed respondents with two or more negative life events were more likely to have used violence in the following three years (ten Have, de Graaf,

van Weeghel, & van Dorsselaer, 2014). The AIC (2015b) also reported that adverse childhood experiences such as witnessing violence, abuse, and family conflict may contribute to future violent behaviour. Similarly, childhood exposure to violence, abuse, and psychological distress have been found to increase the risk of Indigenous Australians perpetrating violence (AIC, 2015b).

While religion is generally thought to be protective against criminal or antisocial behaviour (Topalli, Brezina, & Bernhardt, 2012), there is also evidence that religion is used to excuse criminal behaviour. Topalli et al. (2012) found religious beliefs did not deter criminal behaviour, but rather were used to justify past crimes, and excuse current or future serious criminal behaviour. Further, the association between violence and schizophrenia with religious delusions and religious hallucinations is recognised (Brewerton, 1994; Siddle, Haddock, Tarrier, & Faragher, 2002; Thalbourne, & Delin, 1994; Walsh, Buchanan, & Fahy, 2002), however, only a small proportion of violence in society is perpetrated by persons with schizophrenia or other types of mental illness (Jorm & Reavely, 2014; Walsh et al., 2002).

Risk Factors for Violence for Indigenous Australians

It is becoming well documented that cannabis use is widespread in Indigenous communities in remote northern Australia, particularly where strict alcohol restrictions are in place (Bohanna & Clough, 2012; Lee et al., 2015). With this increased use of cannabis, also comes the increased risk of the associated aggression and violent behaviour (Hall, Degenhardt, & Lynskey, 2001; Moss & Tarter, 1993; Sherman, & McCrae-Clark, 2016). It is also well established that violence often occurs in the context of drinking alcohol in Indigenous Australian communities (ABS, 2010; Chapman et al., 2011; Dawes et al., 2017; Kenny & Lennings, 2007a; Wilson, Stearne, Gray, & Siggers, 2010). In addition, alcohol use was directly linked to offending, and identified as the primary instigator for many violent incidents resulting in jail for Indigenous Australian offenders (Putt, Payne, & Milner, 2005). The link between alcohol and violence, however, is not thought to be directly causal. For example, research in Indigenous Australian communities suggests alcohol provides a socially accepted excuse for, and courage to engage in, violent behaviour to solve disputes and tensions (d'Abbs, Hunter, Reser, & Martin, 1994; Shore & Spicer, 2004).

The risk of engaging in certain types of violence, including domestic or family violence is reported to be higher in Indigenous communities, with people of Indigenous Australian culture said to be at greater risk of perpetrating violent behaviour than non-Indigenous Australians (People, 2005). Contrary to this however, Kenny and Lennings (2007a) did not find Indigenous

status per se increased the risk of violent behaviour for Indigenous Australians. Indeed, apart from culture, explanations for violence in Indigenous communities include social exclusion and inequality (Dawes et al., 2017; Marmot, 2005), the structured use of fighting and swearing (Langton et al., 1991), and a lack of understanding of Indigenous cultural practices by criminal justice agencies (Homel et al., 1999). It has also been suggested that the concept of crime may be difficult to interpret for some Indigenous Australian cultural groups, by those unfamiliar with the social and historical associations with police racism, violence, deaths in custody, dispossession, and colonisation (Bushnell, 2017; Homel et al., 1999).

A widely held view is that the high rates of violence experienced in Indigenous Australian communities are due to widespread economic and social disadvantages in many areas, long-standing after-effects of the negative impact of colonisation and dispossession (Adams et al., 2017; Snowball & Weatherburn, 2008). During colonisation, rapid social change was also experienced, including the destruction of traditional Indigenous roles and values (Snowball & Weatherburn, 2008). The breakdown of social norms, rules and customs led to people in these communities, in particular Indigenous men, feeling alienated and losing their sense of purpose and identity (Langton, 1989; Memmott, 2010; Memmott et al., 2001; Reser, 1990). These Indigenous men, previously leaders and law-makers, resorted to violence to regain their authority and to express anger and frustration at their lack of power in society (Gale, 1978; Hunter, 1993; Langton, 1989). Furthermore, Atkinson (2002) described a study, conducted from 1993 to 1998, that found anger and violence in a central Queensland Indigenous community resulted from trauma stemming from the impact of colonisation. These historical events continue to generate feelings of frustration, anger and despair today, resulting in the high levels of violence still present. As Adams et al. (2017) reported, Indigenous Australian people have long identified the key driver of violence [against women], to be due to the unresolved intergenerational trauma associated with dispossession and colonisation.

1.2.5 Protective Factors Against Violent Behaviour

Various protective factors that prevent or reduce violent behaviour have been identified in Australian and international literature. These include employment (Hunter, 2001; Sabina & Banyard, 2015; Sampson & Laub, 2003), being married (Amato & Booth, 1997; Nock, 1998; Wilcox et al., 2005), education (Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011), positive childhood events and experiences (Resnick et al., 1997), and religion (Topalli et al., 2012). International research shows improved school performance and retention can reduce the risk of

an individual's involvement in crime (MacKenzie, 2002). Moreover, positive school experiences and learning achievements, starting as early as preschool, offer lifelong protective effects against antisocial and criminal behaviours (Barnert et al., 2015; Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011). Educational achievement and connections to school have been shown to protect Australian high school students from future violent behaviour (Chapman, Buckley, Reveruzzi, & Sheehan, 2014; Chapman et al., 2011; Hemphill et al., 2009). Research with Indigenous Australians also shows those with a higher level of education, or who had completed Year 12, had a reduced risk of arrest, charge and incarceration for violent offences (Weatherburn et al., 2006; Weatherburn, Snowball, & Hunter, 2008). Being married, or in a stable relationship, may also protect men against criminal behaviour. This may be due to the positive effects on men's daily functioning, mental and physical health, economic and educational opportunities and achievement, and overall life satisfaction that is attributed to marriage (Amato & Booth, 1997; Nock, 1998; Wilcox et al., 2005).

Social development theory proposes that positive experiences and strong bonds to others, including family, school, community and peers protect against behaviours that violate socially accepted standards, such as violent behaviour (Hawkins & Weis, 2015; Resnick et al., 1997). Reciprocal bonds of attachment and commitment set children on a positive developmental trajectory, resulting in more constructive outcomes and fewer risky behaviours later (Catalano & Hawkins, 1996; Hawkins & Weis, 2015; Resnick et al., 1997). International research also shows secure parental attachment buffers the effects of negative life events (Izard, 2002; Polan, Sieving, & McMorris, 2013), and compensates for cumulative effects of risk factors for violent behaviour (Fergus & Zimmerman, 2005). Australian research also suggests secure parental attachment shields individuals against negative life events, and emotional skills and emotion control are important protective factors against perpetrating bullying and violent behaviour for youth (Hemphill et al., 2009). Cultural engagement or having pride in one's culture and possessing knowledge about their traditional background, can lead to a reduction in violent reoffending for Indigenous Australian youth, according to Shepherd et al. (2017). The underlying consequences of cultural engagement, according to Shepherd et al., are self-assurance, self-esteem and life purpose, which all increase an individual's chances of avoiding further violent behaviour.

Religion has been described as a risk factor for criminal behaviours, however, it is also understood to have a protective influence (Topalli et al., 2012). Religion can strengthen connections between criminals and society via shared beliefs, commitment, principles, and behaviour inconsistent with law breaking. These positive beliefs and behaviours are continually

reinforced by law abiding role models, and participation in mainstream activities, thereby reducing criminal activity and promoting conformity with the group (Akers, 2010; Burgess & Akers, 1966; Hirschi, 1969; Topalli et al., 2012).

Employment is another important protective factor against violent behaviour and criminal activity in general populations (Sabina & Banyard, 2015; Sampson & Laub, 2003), and for Indigenous Australians (Weatherburn et al., 2006; Weatherburn, 2008). The protective influence of employment is likely due to the reduced time available to participate in illegal activities, reduced immediate financial disadvantage and improvement in positive interactions with society, which strengthen social bonds and connections to social institutions (Hunter, 2001; Sampson & Laub, 2003).

1.2.6 Incarceration Rates in Australia

As of March 2017, the daily average number of adult prisoners in Australian correctional centres was 40,577, or 215 per 100,000 of the adult population (ABS, 2017b). This represents an increase of 7% from the previous year, while from 2012 to 2017 the number of adult prisoners incarcerated in Australia increased by 38% (ABS, 2017a). By 2018, rates of Incarceration in Australia had risen to 221.4 per 100,000 of the adult population (Queensland Government Statisticians Office [QGSO], 2018). Incarceration rates also continue to rise in Queensland, with an increase of 5.7%, from 207.5 to 219.3 per 100,000 of the adult population, between 2016 and 2017 (ABS, 2017b); and up to 227.2 per 100,000 in 2018 (QGSO, 2018). It is also well documented that males of both Indigenous and non-Indigenous Australian heritage account for approximately 90% of all Australian prisoners (ABS, 2017b).

Incarceration Rates for Indigenous Australians

A disproportionate number of indigenous peoples across Western nations, including Australia, are involved with all stages of the criminal justice system (Barker et al., 2015). For example, Indigenous Australians make up only 2.8% of the total population but account for approximately 28% of the Australian prison population (ABS, 2016a, 2017a). In 2016 to 2017, Indigenous Australians were incarcerated at 13 times the rate of non-Indigenous Australians, with the average daily number of Indigenous Australian prisoners also increasing by 7% over this year (ABS, 2016b, 2017b). By 2018, the incarceration rate of Indigenous Australians in Australian prisons was at 2504.7 per 100,000, which is over 10 times the rate for all other Australians (QGSO, 2018).

Incarceration Rates in Queensland

In Queensland, approximately 4.0% of the population identify as being Indigenous Australian, however Indigenous population rates for regional and remote areas of Queensland are much higher (QGSO, 2018). For example, 23% in the Mt Isa region, 55% in Cape York, and 79% in the Torres Strait Islands (Queensland Treasury and Trade, 2013). In 2016, Queensland recorded the second highest rate (24% or 2,691 persons) of Indigenous Australian prisoners, slightly less than New South Wales who recorded highest rate (28%) (ABS, 2017a).

In 2018, Indigenous Australians in Queensland were imprisoned at a rate of 1,744 per 100,000 of the adult Indigenous population (QGSO, 2018). This is over ten times higher than the imprisonment rate for non-Indigenous Australian people in Queensland, which was 175.1 per 100,000 in 2018 (QGSO, 2018). Of even greater concern, on average, 71% of the population in one north Queensland correctional centre typically identify as Indigenous Australian (Queensland Corrective Services, 2015).

1.2.7 Risk Factors for Incarceration

The relationship between incarceration and mental health disorders such as schizophrenia, has been well established. Schizophrenia often includes symptoms such as religious delusions and normative religious hallucinations (Brewerton, 1994; Grover, Davuluri & Chakrabarti, 2014; Siddle et al., 2002; Thalbourne & Delin, 1994; Walsh et al., 2002). Religious activity and ideation have been associated with crime and incarceration in overseas research. Violent street criminals from North America actively referenced their religion to justify past crimes and excuse continuation of serious criminal behaviour, and religious beliefs did not deter them from negative consequences such as incarceration (Topalli et al., 2012). A percentage of prison detainees likely suffer from schizophrenia with religious symptoms, as persons with severe mental health disorders are over-represented among individuals arrested, detained and incarcerated in prison (Hiday & Moloney, 2014). While people with mental health disorders are not major contributors to police-identified criminal violence, public perceptions of mentally ill persons as criminally dangerous are often greatly exaggerated (Jorm & Reavley, 2014; Stuart & Arboleda-Flôrez, 2001).

Adverse experiences during childhood also increase the risk of incarceration as an adult. Youth in a North American detention centre identified chaotic and unsafe homes, schools and neighbourhoods; and a lack of role models, discipline, love and attention, as contributing factors

towards their incarceration (Barnert et al., 2015). Parental incarceration was also found to increase young people's own risk of incarceration (Ng, Sarri, & Stoffregen, 2013). Further, early onset behavioural problems were associated with incarceration for at-risk youth in North America; while school-based punishment or detention in 6th Grade predicted incarceration in 12th Grade (Reingle, Jennings, & Komro, 2013). Australian research parallels these findings, for example child abuse, school failure and lack of family support have been shown to increase the risk of future incarceration for Australian high school students (Homel et al., 1999).

Carlson and Shafer (2010) studied the trauma histories and stressful life events of 2,279 inmates in Arizona, USA. They found high rates of exposure to traumatic events, especially child abuse, across gender and ethnic groups. Other research shows youth involved in the criminal justice system typically have extremely high rates of trauma exposure from early life (Dierkhising et al., 2013; Ko et al., 2008). Furthermore, incarceration itself holds the risk of continued trauma and abuse, with vulnerable youth more likely to reoffend as a juvenile or adult, and to have poor long-term economic, academic and mental health outcomes (Justice Policy Institute, 2009; Widom & Maxfield, 1996).

Risk Factors for Incarceration for Indigenous Peoples

The legacy of colonisation, prohibition of language and cultural practices, removal of children into church-run residential schools and missions, intergenerational trauma, and economic marginalisation increase the risk of incarceration for indigenous peoples in Western countries (Barker et al., 2015; Saggars & Grey, 1998). Residential instability, low education levels, unemployment, substance use, poverty, and serious family conflict also disproportionality affect Western indigenous communities (Barker et al., 2015). Specific factors for Indigenous Australians have also been identified, including family problems and childhood conduct disorder (Kenny & Lennings, 2007a), removal from family, remote area living, overcrowded housing and economic disadvantage (Weatherburn et al., 2006), previous incarceration and low education levels (Putt et al., 2005).

Substance use also increases the risk of incarceration for indigenous people in Western countries, according to Barker et al. (2015). Alcohol abuse has been identified as a specific risk factor for incarceration for Indigenous Australians (Weatherburn et al., 2008; Wundersitz, 2010). In addition to alcohol almost two-thirds (62%) of Australian adult male prisoners had used cannabis in the six months preceding incarceration, with 68% of those using once a day or more (Payne, Macgregor, & McDonald, 2013). Violent offenders also self-report very high rates (78%) of cannabis use in the six months prior to their incarceration (Payne & Gaffney, 2012; Payne et

al., 2013). Additionally, a study in northern Australia found that 69.3% of Indigenous Australians entering prison had used cannabis within three months of their incarceration; two thirds of these inmates met the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) criteria for cannabis dependence; and 57% met the criteria for cannabis withdrawal syndrome (Rogerson, Jacups, & Caltabiano, 2014).

1.2.8 Protective Factors Against Incarceration

Positive school experiences beginning in preschool (Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011), and graduating high school (Lochner & Moretti, 2001) have been identified internationally as protective against future incarceration. Vocational education and training also have positive effects on at-risk youth in foster care (Ahrens et al., 2011; Spencer, Collins, Ward, & Smashnaya, 2010). Further, inmates enrolled in education and vocational training programs have been shown to have lower recidivism rates than those who did not attend the programs (Mohammed, Azlinda, & Mohamed, 2015).

In Australian research, men with low levels of education had a higher probability of being detained by the police than those with higher educational levels, with just 5% of male police detainees having completed tertiary education, compared with 41% who had completed Year 10 or less (AIC, 2015a). Finishing Year 12 also reduced the risk of later arrest for Indigenous Australians according to Weatherburn et al. (2006). Marriage can also protect men against engaging in criminal behaviour and incarceration, through positive effects on mental and physical health, economic and educational opportunities and achievement, and overall life satisfaction (Amato & Booth, 1997; Nock, 1998; Wilcox et al., 2005). Conversely, not being married has been shown to be a risk factor for incarceration for both war veterans and the general population in North America (Greenberg & Rosenheck, 2009).

Positive events and emotions during childhood protect many individuals against future adverse outcomes. Developing strong bonds to others, including family, school, community, social groups and peers, protects against behaviour that violates socially accepted standards. Attachment (positive emotional links), and commitment (personal investment in the group) are the basic elements of these social bonds (Hawkins & Weis, 2015; Resnick et al., 1997). Reciprocal bonds of attachment and commitment to and from others set children on a positive developmental trajectory, resulting in more constructive outcomes and fewer risky behaviours later (Catalano & Hawkins, 1996; Hawkins & Weis, 2015; Resnick et al., 1997).

The focus in recent times has been on research into risk-based explanatory models of why individuals commit crime (Farrington, Piquero & DeLisi, 2016). Many people, including Indigenous and non-Indigenous Australians do not commit violent offences or become incarcerated, despite exposure to a many risk and protective factors (Tomison, 2010). There is an urgent need to also investigate why individuals abstain from crime or desist from their delinquent lifestyles despite childhood adversities (Farrington et al., 2016; Tomison, 2010). The most influential risk and protective factors must continue to be identified to decrease the likelihood of violence and incarceration in many Australian and Indigenous Australian communities. This current study aims to explore these risk and protective factors for individuals from the North and Far North areas of Queensland, in order to fill this gap in research.

Various theoretical perspectives have been used to describe how individuals develop from childhood to adulthood, and how many different influences act to either decrease or increase the risk that the individual may perpetrate violent behaviour and become incarcerated. The following section, Part B, Theoretical perspectives Bronfenbrenner's EST in general, and in the context of violence in Indigenous populations.

1.3 Part B: Theoretical Perspectives

Various theories have been developed to explain individual development from childhood to adulthood, and how early childhood influences and experiences affect the behaviour that people exhibit during adulthood. Bronfenbrenner's ecological systems theory (EST) (Bronfenbrenner, 1979), is used as an exploratory framework for this research project and is now discussed further.

1.3.1 Bronfenbrenner's Ecological Systems Theory (EST)

Ecological systems theory, formulated by American psychologist Urie Bronfenbrenner (1979), explains how the intrinsic qualities of a child, along with the characteristics of the external environment in which the child lives and is involved in, interact to influence growth and development. Bronfenbrenner stressed the importance of studying children in the context of their multiple environments, or ecological systems, in order to understand individual development (TPNH, 2016). EST relies on the notion that environmental factors play a major role in human development, and that the social ecology of human development is composed of several nested layers (ecosystems) of influence. These ecosystems include the individual, microsystem, mesosystem, exosystem, macrosystem, and chronosystem (see Figure 2) (Bronfenbrenner, 1979, 1994). During their lifetime, an individual is simultaneously enmeshed in these ecosystems, from the most intimate (individual), to the wider microsystem (for example, the school system), and the most extensive macrosystem (society and culture). Each of the systems interact, influencing each other and every aspect of the individual's life and development (TPNH, 2016). Each of these systems will now be discussed.

At the centre of EST is the individual and their immediate environment, including characteristics such as personality, gender, age and health. A significant finding by Bronfenbrenner is that individuals, such as siblings, who live and grow up in the same ecological systems may experience very different social, emotional and physical environments and development (TPNH, 2016). Risk and protective factors that may be categorised within the individual system include gender, mental health (such as personality disorders, substance use disorders), personality traits and emotions.

Following from individual factors, the microsystem refers to the institutions and groups that directly and immediately impact the child's development, the smallest most immediate

environment in which the child lives (Bronfenbrenner, 1994; TPNH, 2016). This system comprises the daily home, school or day-care, peer group or community environment of the child, and the back and forth interaction between family members, peers, teachers, and caregivers, for example. The way in which the individuals within these groups interact with the child will affect how the child develops. Correspondingly, how the child reacts to others within their microsystem will influence how the child is treated in return. The more nurturing and supporting these interactions are, the more positive the child's development will be (Bronfenbrenner, 1979; TPNH, 2016).

Next, the mesosystem incorporates relationships or interactions between microsystems, such as the linkages between family and teachers, or the child's peers and their family. For example, children who have experienced conflict within the family unit may have difficulty developing positive relations with teachers or friends, therefore risking their education; or associating with negative peer groups against their family's wishes (Bronfenbrenner, 1994). Conversely, if parents are actively involved and supportive of the child's education and friendships, this support allows the child to develop positive relationships with others (Bronfenbrenner, 1979; TPNH, 2016).

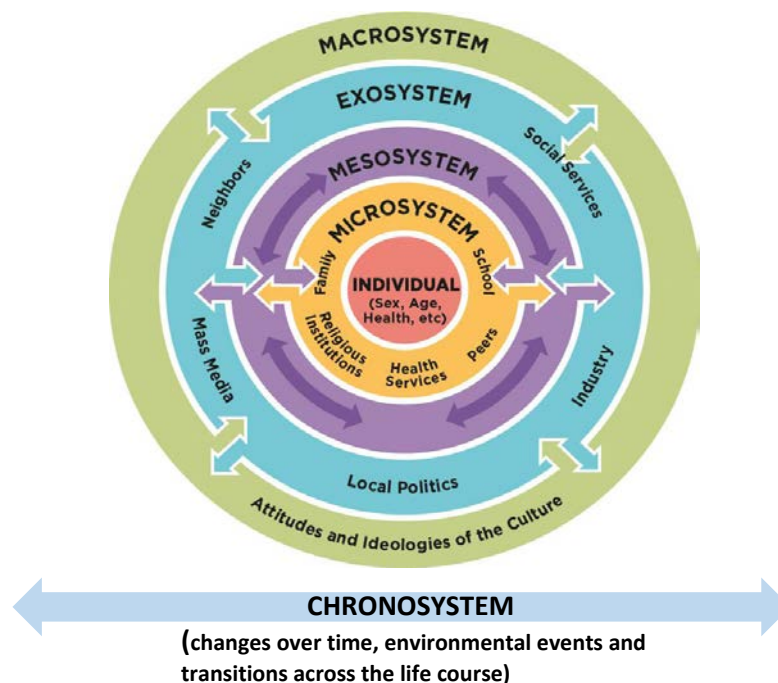


Figure 2. Visual representation of Bronfenbrenner's ecological systems theory (EST).

Note: Reprinted with permission from the National Academies Press. <https://www.nap.edu/read/23482/chapter/5#72>.

The fourth system, the exosystem, links the indirect social settings in which the individual does not have an active role. While the child may not be actually situated within these settings, they affect the child's development nonetheless (Bronfenbrenner, 1994; TPNH, 2016). For example, a child's experience at home would be influenced by a parent losing a job, resulting in low family income and straining their ability to parent effectively. This in turn increases the likelihood that the child will exhibit behavioural and emotional difficulties (Bronfenbrenner, 1994). Other factors within the exosystem include parents' workplaces, the larger neighbourhood and extended family, economic factors, living arrangements, community and social factors (Bronfenbrenner, 1994; TPNH, 2016).

The next system, the macrosystem, includes the largest and most distant group of people and places that exert a significant influence on a child's development (TPNH, 2016). This system includes the culture in which individuals live; dominant beliefs and ideas, attitudes and ideologies; socioeconomic status; poverty; ethnicity; and common identity, heritage, and values (Bronfenbrenner, 1979, 1994; TPNH, 2016). Children in war-torn regions, for example, will experience a different kind of development than children who have grown up without war (TPNH, 2016). Consequently, these social and cultural values evolve over time with each successive generation leading to the development of a unique macrosystem (Bronfenbrenner, 1994).

Lastly, the chronosystem works alongside all of the previous systems, and includes changes over time, or the patterning of environmental events and transitions over the life course (Bronfenbrenner, 1994). The chronosystem adds the useful dimension of time, which demonstrates the influence of both change and constancy in the child's environment (TPNH, 2016). The chronosystem may thus include a change in family structure, such as the divorce of parents; changing address; parents' employment status; or societal changes such as economic cycles and wars (TPNH, 2016).

EST and Indigenous Australian Culture

As is the case for the general population, there is no single cause of violent behaviour within Indigenous Australian communities. Rather, many factors operate at different levels within the environment. Memmott et al. (2001) divided factors into three categories based on a variant of Bronfenbrenner's EST of child development. These categories include: Precipitating causes – the specific event or trigger for a violent incident; situational factors – community, family or personal level circumstances that influence the individual, including unemployment and poverty; and underlying factors – due to the historical disruptions to Indigenous systems of law, morals,

authority and punishment, triggering the widespread social and psychological issues that are passed from generation to generation (Memmott, et al., 2001).

Zubrick and Robson (2003) have also noted the applicability of EST towards an understanding of violent behaviour for Indigenous Australians, with each level of EST generating different sets of risk and protective factors for violent behaviour. Micro factors (proximal factors) occur in close vicinity to the offender, and may include mental illness, drug abuse, social support and family conflict. Broader community characteristics, such as historical events, socioeconomic inequality, poverty and unemployment operate at some distance from the harmful behaviour (distal factors). The probability that a specific factor will cause violent behaviour reduces when moving from proximal to distal factors. While many proximal factors will not directly cause violent behaviour, they may indirectly increase the risk that such behaviour will occur (Zubrick & Robson, 2003). The usefulness of EST to explain violent behaviour for Indigenous Australians is the acknowledgement that there is not one single cause of violence, rather many factors and situations operate across time and space (AIC, 2010; Zubrick & Robson, 2003). This knowledge diverts attention away from the search for a cause, instead to an exploration of the links between the factors, and how they increase or decrease the risk that violence will occur.

1.3.3 Conclusion

Ecological systems theory considers the context of risk and protective factors in both the individual's direct, and wider environment (AIC, 2010; Bronfenbrenner, 1979, 1994). Fundamentally, a multi-faceted and holistic approach is required when identifying and confronting factors relating to violent behaviour and incarceration in Australia (Memmott, 2010; Memmott, er al., 2001). The importance of this theoretical perspective is that depending on which factors are significantly associated with violent behaviour or incarceration, the most influential systems can be discovered at an individual level (AIC, 2010; Bronfenbrenner, 1994). There must be a range of crime prevention options, both situation specific and broader, community targeted options, in individual community settings (Memmott et al., 2001). It is important to keep in mind, however, that the relevance and significance of such theories will vary depending on the community and the time period they relate to (Memmott et al., 2001).

The introduction and theoretical perspectives relating to violence and incarceration have now been discussed. The following chapter (Chapter 2) is a comprehensive review of Australian empirical research investigating risk and protective factors for violence and incarceration for Australian men.

Chapter Two: Literature Review

2.0 Background

For a full discussion on rates of violence and incarceration in Australia, and for information on risk and protective factors for violence and incarceration in both Australia and overseas, please refer to Chapter 1, section 1.4.

2.0.1 Paper 1

Honorato, B., Caltabiano, N., and Clough, A.R. Risk and protective factors for violent behaviour for Australian men - A literature review. *Trauma, Violence and Abuse*, submitted.

(For details of paper 1, see Appendix A).

Summary of Paper

An online search for English-language, peer-reviewed studies investigating risk and/or protective factors for violent behaviour/incarceration for Australian men revealed eight suitable publications.

Risk factors identified for violent behaviour for non-Indigenous men included substance abuse, family problems, low education, economic disadvantage, previous violence and incarceration, exposure to violence as a child, head injury, and mental health disorders. There were also several risk factors for violent behavior identified for Indigenous men, including conduct disorder, historical factors and jealousy. Protective factors for violent behaviour for non-Indigenous men included emotion control, secure attachment to mother, and educational attainment; while shame was identified as protective against violent behaviour for Indigenous men.

The only risk factor for incarceration that was reported across the 9 studies under review was having parents previously incarcerated, which was identified for Indigenous Australian men. There were no risk factors reported for incarceration for non-Indigenous men. Furthermore, no protective factors were reported for incarceration for Indigenous men or for non-Indigenous men in any of the studies reviewed.

Further investigation into risk and protective factors is warranted, particularly in the north of Australia where rates of violence and incarceration are extremely high, and research into these factors is inadequate. Identifying significant influences early on in life, and implementing early intervention and education programs, may halt or reduce high rates of violence and incarceration for future generations.

2.0.2 Review Aims

While various risk and protective factors have been previously identified in international and limited Australian research, this review aims to explore factors specific to Australian men, including Indigenous Australian men, with a particular focus on North Queensland where very high rates of violence and incarceration exist. The main aims of the review are:

Aim 1. Consolidate and critique empirical studies that examine/identify risk and/or protective factors for violent behaviour and/or incarceration for Australian men;

Aim 2. Report on identified risk and protective factors for Australian men; and

Aim 3. Report on unique factors, if any are identified, for Indigenous Australian men.

2.1 Methodology

Online databases including Medline, Cinahl, JStor, Scopus, Informit, PsychInfo and PsycArticles were searched for peer-reviewed empirical studies, investigating risk/protective factors for the perpetration of violence and/or incarceration for Australian males. Search terms included: *Indigenous, non-Indigenous, Australian, protective factors, risk factors, assault, incarceration, jail, violence, violent offending, violent behaviour, and men/males*. Grey literature that was not peer-reviewed (unpublished or published in non-commercial form) was not included as the review was focused on providing an empirically-based, peer-reviewed overview of factors identified in research studies, rather than the prevalence of certain offender characteristics where statistically significant association could not be established.

2.1.1 Inclusion and Exclusion Criteria

To meet the criteria for inclusion within this review, papers were required to be: Australian-based and peer-reviewed research published in English; focused on risk and/or protective factors for violent behaviour and/or incarceration; focused on offenders rather than victims of violence; report data for Australian male samples, or data for male participants reported separately; and studies with non-Indigenous and/or Indigenous Australian males, with data reported separately for each cultural group where possible. Studies that focused on victims rather than perpetrators, and studies not reporting gender separately were excluded as the aim was to describe the factors for Australian male perpetrators.

2.1.2 Search Strategy

As outlined in Figure 3, using the PRISMA approach (Moher, Liberati, Tetzlaff & Altman, 2009) search strategy, titles and abstracts were scanned for 592 potential publications, with 556 of these excluded for the following reasons: focused on victims, no male sample, focused on suicide or self-harm, no risk or protective factors reported, or not relevant to the review in general. The remaining 40 publications were reviewed thoroughly, with 31 excluded as they were grey literature that had not been peer-reviewed - commentaries, letters, or reports with no empirical research component; or did not include a gender breakdown or separate findings for male participants. A total of 9 studies met the full selection criteria and were retained for inclusion in the review.

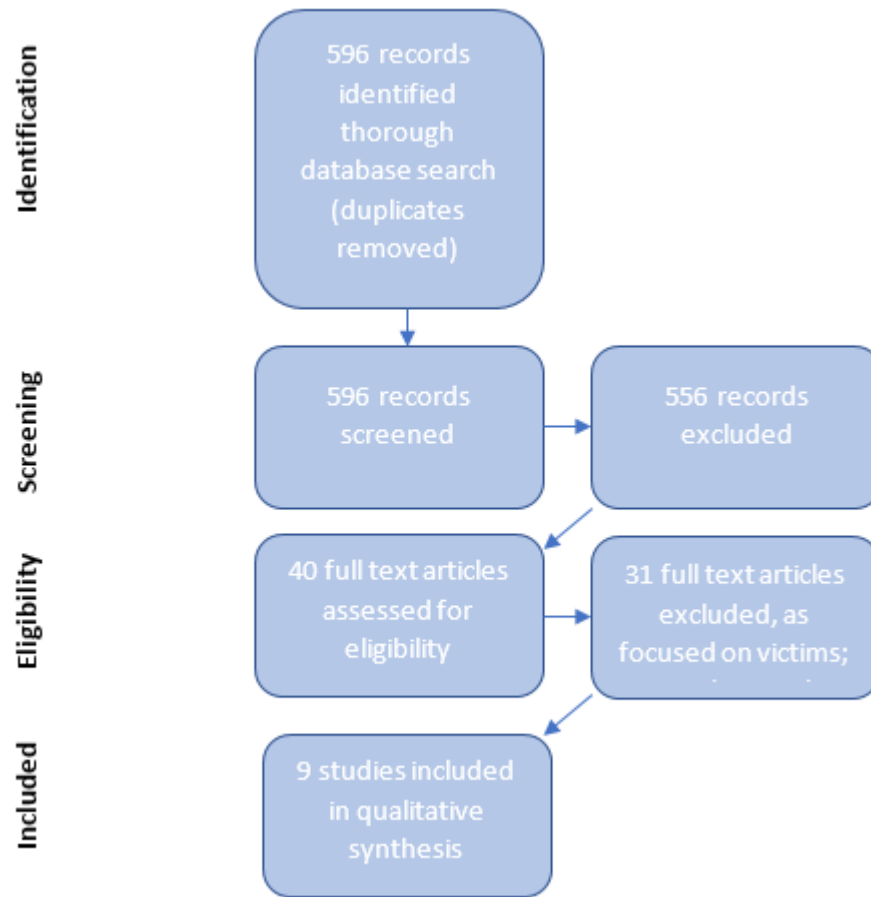


Figure 3. Search strategy for review of Australian studies on risk and protective factors for violence and incarceration using the PRISMA approach

The studies in this review represent the key types of research conducted in this challenging area, with the approach taken to contextualise Australian literature with the significant body of empirical and theoretical work that has been conducted internationally. BH was the only author making the initial selection of publications for this review, as logistically it was not feasible for other authors to assist. Selection bias was possible, however would be of little significance given the small number of relevant studies that satisfied the inclusion criteria. All authors (BH, NC, AC) agreed on the classification of the included literature.

2.2 Results

2.2.1 Description of Studies Reviewed

The first aim of the review was to consolidate and critique the empirical studies that examined and identified risk and protective factors for violent behaviour and incarceration for Australian men. Of the nine papers reviewed, all investigated risk factors for violence, two reported on protective factors for violence, and two reported on risk factors for incarceration. None of the studies reported on protective factors for incarceration for Indigenous or non-Indigenous Australian men (see Table 1). The study aims, methodology, sampling strategy (size, gender, age, location, Indigenous status of participants), and risk and protective factors identified are also summarised in Table 1.

Age, Location and Culture of Participants

As outlined in Table 1, samples included high school students from Victoria aged 15 to 17 years (Hemphill et al., 2009; Scholes-Balog, Hemphill, Kremer, & Toumbourou, 2013), students from South East Queensland aged 12 to 17 years (Fagan & Western, 2005), and juveniles aged 14 to 21 years from NSW detention centres (Kenny & Lennings, 2007a, 2007b). Amphetamine users aged over 16 years from Sydney and Brisbane were included in McKetin et al.'s (2014) study. Adult samples (aged over 18 years) included prison inmates from the Australian states of Queensland (QLD), Western Australia (WA), New South Wales (NSW), the Northern Territory (NT) and Tasmania (TAS) (Putt et al., 2005), offenders from the Queensland Mental Health Tribunal (Green, Schramm, Chiu, McVie, & Hay, 2009), and Indigenous men from north east Australia (Shore & Spicer, 2004).

Indigenous Australian males were included in varying proportions in three studies, including 42% (Kenny & Lennings, 2007a, 2007b), 25% (Putt et al., 2005), and 100% of participants (Shore & Spicer, 2004). Fagan and Western (2005) initially included Indigenous participants but removed them from the total sample, explaining there were too few Indigenous participants to enable precise data analysis. Kenny and Lennings also included English speaking background (ESB) and Culturally and linguistically diverse (CALD) participants in their sample. Four studies did not report the participants' cultural background (Green et al., 2009; Hemphill et al., 2009; McKetin et al., 2014; Scholes-Balog et al., 2013), therefore, these participants are described as non-Indigenous men for the purpose of this review.

Chapter 2 Literature Review

Table 1. Australian Studies Reporting on Risk and Protective Factors for Violent Behaviour and Incarceration for Australian Men

Author	Aim	Sample size Age, Culture	Methodology, Location, Participant group, Study date	Factors assessed
Fagan & Western 2005	Describe age/crime relationship - adolescence to early adulthood	<i>n</i> = 327 12-17yrs, (<i>M</i> 14.5yrs)	Longitudinal self-report survey; QLD; School students, at-risk adolescents & offenders; 1995,1998 & 1999	Younger age groups (adolescence)
Green et al. 2009	Examine association between severity of violence & psychotic symptoms	<i>n</i> = 160 (<i>M</i> 34yrs) Culture NA	Retrospective cross-sectional file review; QLD; Mental Health Tribunal offenders; 1985-2002	Capgras delusions & command hallucinations; acute danger & threat/control-override symptoms; grandiose delusions
Hemphill et al. 2009	Investigate predictors & protective factors for youth violent behaviour across individual, family, peer, school & community domains	<i>n</i> = 978 12-15yrs Culture NA	Longitudinal, self-report survey; International Youth Development Study; VIC; Grade 7 & 9 students; 2002	Family conflict; violent peers; arrests; low income; entrenched poverty; binge drinking alcohol; community disorganisation; school suspensions; community norms favourable to drug use; emotion control; recognition in community and school for prosocial activities
Kenny & Lennings 2007a	Investigate ethnicity, culture & offending in an incarcerated sample	<i>n</i> = 223 14-21yrs Indigenous 42%	Cross sectional, survey, K10, Childhood Trauma Questionnaire, Adolescent Psychopathology Scale; NSW; Juvenile inmates; 2002	Alcohol/drug use; family status; conduct disorder; Indigenous status; parents' prison history/status; conduct disorder; offend to obtain alcohol or drugs
Kenny & Lennings 2007b	Report incidence of head injury and association with severe violent offending in an incarcerated sample		Cross sectional, survey, Self-report retrospective head injury data	Mild head injury; moderate/severe head injury
McKetin et al. 2004	Determine increases in violence during methamphetamine use, & if violence is due to meth-induced psychosis	<i>n</i> = 200 Over 16yrs (<i>M</i> 31yrs) Culture NA	Longitudinal prospective cohort study, structured interviews; Sydney, Brisbane; Drug users; 2006-2010	Meth-induced psychosis; alcohol use; meth use
Putt et al. 2005	Compare Indigenous & non-Indigenous men's drug use & how to prevent/respond to drug-related crime	<i>n</i> = 6686 Adults Indigenous 25%	Cross-sectional, DUCA & DUMO surveys; QLD, WA, NT, NSW, TAS; Inmates; DUMA 2002-2003, DUCO 2001	Low education; alcohol; illicit drugs; previous incarceration; Indigenous younger age
Scholes-Balog et al. 2013	Examine relationship between alcohol & interpersonal violence in adolescence & emerging adulthood	<i>n</i> = 1030 12-17yrs Culture NA	Longitudinal, survey; VIC, Grade 5,7,9 students; 2002	Alcohol use - binge drinking
Shore & Spicer 2004	Examine circumstantial, community & individual factors of alcohol use & violence	<i>n</i> = 26 18-68yrs Indigenous 100%	Ethnography, survey; QLD – rural Indigenous community; 1993	Alcohol use; jealousy; historical conflicts; strained relationships, past confrontations; disputes over land ownership; social disadvantage; shame

Study Designs

Fagan and Western (2005) conducted longitudinal research, McKetin et al. (2014) conducted a prospective longitudinal cohort study, while Hemphill et al. (2009) and Scholes-Balog et al., (2013) utilised the same data set but with different methodology for their studies. Scholes-Balog et al. compared data over three time-points (Year 7, 9 and 11), and Hemphill et al. compared data for two time-points (Year 7 and 9). Shore and Spicer (2004) conducted a mixed-methods study, however, only the survey data is reported in this review, as a gender breakdown was not given for the other components of the study. The remaining studies were cross-sectional surveys (Kenny & Lennings, 2007a, 2007b; Putt et al., 2005), and a court file review (Green, et al., 2009). Kenny and Lennings used the same data set to report on different risk factors for violent offending (Kenny & Lennings 2007a, 2007b).

Dependent Variables Investigated in Studies

Violence. Seven of the studies investigated factors relating to violent behaviour, however, they all operationalised violence in different ways. Kenny and Lennings (2007a, 2007b) asked respondents about their violent offence history, including perpetration of assault, aggravated assault, or homicide. Kenny and Lennings' participants also completed the Adolescent Psychopathology Scale for aggression. Green et al. (2009) categorised participants into three groups according to their violent offence: (1) homicide, (2) serious violence (assault causing grievous bodily harm, and unlawful wounding), and (3) assault occasioning bodily harm. Green et al. also included the number of victims, evidence of planning, means of causing harm, relationship to offender, and delusion regarding victim (was the victim identified prior to, or at the time of, the offence). Shore and Spicer (2004) questioned participants about alcohol-related violence, rating responses on a five-point Likert scale. Items included: "When I am drinking I feel more: angry, aggressive, relaxed, depressed, sexy, sorry for myself, brave, jealous." They also asked, "Is there a relationship between drinking and fighting in the community?" and "Is shame/pride involved in this in anyway?"

Hemphill et al. (2009) and Scholes-Balog et al. (2013) used self-report measures of violence, including "How often in the past 12 months have you beaten someone up and they required medical treatment?" and "How many times have you attacked someone and seriously hurt them?" Response scores ranged from never to 40 times and were converted to dichotomous yes/no variables. A dichotomous measure was deemed appropriate as few students had engaged in high levels of violent behaviour, and the presence versus absence of the behaviour was the focus of the analysis (Hemphill et al. 2009). Fagan and Western (2005) had participants complete

the Involvement in Criminal Behaviour Australian Self-Reported Delinquency Scale. Participants' history of violence was assessed using the assault subscale: Have you: "forced someone to give you things?" "taken part in a fight between two or more groups?" "deliberately hurt or beaten up somebody?" and "used anything as a weapon in a fight?" Participants were shown a list of offences and asked if they had committed any in the past 12 months, with responses summed and means and prevalence of offending assessed.

McKetin et al. (2014) defined violent behaviour as severe hostility, including assault or damage to property, in the past month. Participants completed the Brief Psychiatric Rating Scale (BPRS), which includes a semi-structured interview, to rate psychiatric symptoms (see Ventura, Green, Shaner, & Liberman, 1993). Scores of 6 or 7 on the BPRS were categorised as severe. The anchor-point rating for a 6 was: "has assaulted others, but with no harm likely (for example, slapped or pushed) *or* destroyed property (for example, knocked over furniture, broken windows)" and for a score of 7: "has attacked others with the definite possibility of harming them, *or* with actual harm (for example, assault with a hammer or weapon)" (McKetin et al., 2014; Ventura et al., 1993).

Incarceration. Incarceration was defined as participants being detained in juvenile detention or adult prison. Putt et al. (2005) looked at risk factors and outcomes for men who were incarcerated in adult prisons and took part in the 2001 Drug Use Careers of Offenders (DUCO) and 2002/2003 Drug Use Monitoring in Australia (DUMA) surveys in QLD, WA, NSW, NT and TAS. Kenny and Lennings (2007a, 2007b) conducted research with young males in juvenile detention centres in NSW, also specifying the type of offence leading to incarceration, which included robbery, break and enter, other assault, aggravated assault and homicide.

Independent Variables Investigated in Studies

Substance use. Different methods were used across studies to measure alcohol and illicit drug use. These included asking participants about their substance use in the past 12 hours (Green et al., 2009), alcohol use in the past four weeks (McKetin et al., 2014), and alcohol use in the past year (Hemphill et al., 2009; Scholes-Balog et al., 2013). Hemphill et al. and Scholes-Balog et al. also measured binge drinking by asking participants "How many times have you had five or more drinks in a row in the past two weeks?" McKetin et al. (2014) used comprehensive measures, including the Opiate Treatment Index to record days of alcohol and drug use in the past four weeks, and hair toxicology to confirm abstinence.

Kenny and Lennings (2007a) used the Substance Abuse Disorder scale and the Psychosocial Substance Abuse scale to measure alcohol use. They also recorded whether

participants were aged 13 years or less the first time they were drunk (intoxicated), their hazardous alcohol consumption (not defined), if they had ever committed a crime to obtain alcohol and/or drugs, whether they were under the influence at the time of their offence, and if they had ever injected drugs. Putt et al. (2005) analysed data from the DUMA and DUCO surveys, where substance use was recorded with self-report surveys and urine samples used to detect drug use. To assess alcohol-mediated violence, Shore and Spicer (2004) used the Drinking Expectancy Profile, and items assessing participant's beliefs concerning effects of drinking on behaviour and emotion, such as "When I am drinking I feel more angry, aggressive, depressed, jealous" and "Is there a relationship between alcohol and fighting in the community?"

Family factors. Hemphill et al. (2009) measured family variables on a five-point scale, with items such as "People in my family often insult or yell at each other" and "Do you share your thoughts and feelings with your mother?" to measure parental attachment. Kenny and Lennings (2007a) used dichotomous variables to determine whether participants' parents were separated or divorced, and if a parent was currently imprisoned. They also recorded the history of parental imprisonment; however, the method of measurement was not defined further. Fagan and Western (2005) asked participants if they had two biological parents, or another family type (not defined), if their parents were employed, and about parental education levels.

Mental health. Green et al. (2009) assessed if participants had persecutory delusions, grandiose delusions, capgras delusions (victim is misidentified), threat-control override symptoms (perpetrator is in acute danger, with thought interference and replacement of will), disorganised thoughts, and command hallucinations, however, did not define these further. McKetin et al. (2014) measured methamphetamine-induced psychosis using the BPRS, and participants were only included if they met the DSM-IV criteria for methamphetamine dependence but did not meet the criteria for schizophrenia or mania. Only Kenny and Lennings (2007a) included conduct disorder as a variable, and assessed it using the Adolescent Psychopathology Scale, which is based on DSM-IV criteria (no symptoms, subclinical, mild, moderate, or severe symptoms).

Head Injury. Reporting on data from the same study sample as for their previous publication (2007a), Kenny and Lennings investigated whether head injury was associated with severe violent offending in a group of juvenile detention detainees (Kenny and Lennings, 2007b). To measure head injury, participants were asked to self-report if they had ever had a head injury, and if so to provide details on their worst head injury, including length of time unconscious, how long ago the injury occurred, if they had any behavioural or cognitive difficulties because of the

injury. The severity of the head injury was determined by considering these factors, and matching markers derived from literature to the participant's responses (Kenny and Lennings, 2007b)

Emotions and personality factors. The association between violence and jealousy 'over the perceived success and privilege of others' was examined by Shore and Spicer (2004), however, they did not specify how it was assessed. The emotion of shame, however, was measured with one question: "Is shame/pride involved in this [violence/fighting in the community] in any way?" Hemphill et al. (2009) assessed participants' ability to control their emotions, with one item: "I control my temper when people are angry at me."

Community and social factors. A variety of questions were asked to assess the type of negative community factors that may have existed in participants' neighbourhoods. These included asking about community disorganisation, for example the level of crime and/or drug selling in the neighbourhood, the perceived ability to obtain drugs in the neighbourhood, and community norms and attitudes favourable to drug use, such as "How wrong would most adults in your neighbourhood think it is for kids to drink alcohol?" (Hemphill et al., 2009). Fagan and Western (2005) asked participants 200 questions related to drug use and other delinquent behaviour to assess community factors and overall neighbourhood disadvantage. Hemphill et al. (2009) recorded participants' association with violent peers by asking "In the past 12 months how many of your best friends attacked someone with the idea of seriously hurting them?" Additionally, Hemphill et al. assessed the possible protective factor of 'recognition in the community for pro-social activities' by asking participants if "My neighbours notice when I do a good job and let me know about it."

Education. Hemphill et al. (2009) investigated whether school suspensions contributed to future violent behaviour by asking how many times participants had been suspended in the past 12 months (scored between 0 and 40 times). Low education was included as a variable by Putt et al. (2005), however there was no further explanation of the measurement method.

Criminal history. Kenny and Lennings (2007a) recorded whether participants had committed a crime in order to obtain drugs; along with previous incarceration history of both the offender and their parents. Incarceration history as a juvenile and an adult was also recorded by Putt et al. (2005). Hemphill et al. (2009) asked participants how many times in the past 12 months they had been arrested, with a score between 0 and 40 times recorded.

Age and culture. These variables were also included as independent variables in various papers reviewed and are described in the Age and Culture sections above, and in Table 1.

2.2.2 Risk Factors Identified for Violent Behaviour

The second aim of the review was to report on the risk and protective factors for violence and incarceration for Australian men that were identified in the studies under review.

Alcohol Use

Scholes-Balog et al. (2013) and Hemphill et al. (2009) examined the relationship between alcohol consumption and interpersonal violence using the same data set but analysed different cohorts. Measurement was taken over three time points (from early to late adolescence and emerging adulthood) for Grade 7, 9 and 11 students over a five-year period for the full study. Hemphill et al. (2009) reported on two cohorts, Grade 7 and 9, and found binge drinking (consuming five or more drinks in a session) in Grade 7 predicted interpersonal violence in Grade 9 for male students. This relationship remained significant even after controlling for peer drug use and behaviour, family conflict, depressive symptoms, parental education levels, early antisocial behaviour, and academic failure. Similarly, Scholes-Balog et al., reporting on the Grade 7, 9 and 11 cohorts, found binge drinking was a major risk factor for violent behaviour 12 months later for male students in Grade 9 and 11, even after controlling for social structural factors including low income, workless household and sole-parent status. The later study by McKetin et al. (2014) found heavy alcohol use (more than 16 days use in past month) increased the risk of violent behaviour threefold, after controlling for other drug use, sociodemographic factors, and psychotic symptoms.

Shore and Spicer (2004) investigated factors relating to alcohol-mediated violence in a small Australian Indigenous community, with a relatively small sample of survey respondents ($n = 26$). Alcohol use was confirmed as a risk factor for violence, as it provided individuals with the courage to confront sensitive issues that were usually suppressed, however, as this study was based on participant's beliefs and opinions, a causal relationship was not established. Putt et al. (2005) compared substance use and offending histories of Indigenous ($n = 533$) and non-Indigenous ($n = 1602$) men, and reported that for Indigenous Australians, alcohol was most directly linked with offending, was named as the cause of the most recent crime and was more often involved in violent incidents leading to jail. These results, however, should be interpreted with caution and not generalised outside of this study. Due to the self-report survey methodology with incarcerated drug users, recall bias may have been present, leading to concerns with the accuracy or completeness of their recollections of events occurring prior to incarceration. Finally, rather than establishing a direct link between alcohol and drug use and violent offending, Kenny and Lennings (2007a) found the 'commission of crime to obtain either alcohol or drugs' was a

significant motivator for criminal behaviour for substantial majorities of both English-speaking background (ESB) and Indigenous offenders.

Illicit Drug Use

McKetin et al.'s (2014) study with male drug users ($n = 278$) found a dose-related increase in violent behaviour when an individual was using methamphetamine, compared with periods of non-use of the drug. Violent behaviour was 6.2 times more likely when participants were using methamphetamine than when they were not using, and 15 times more likely when the drug was used more than 16 times in the past month. This relationship persisted after adjusting for other substance use and sociodemographic factors and was independent of the violence risk that was associated with psychotic symptoms. Putt et al. (2005) also found a strong causal relationship between offending and illicit drug use for non-Indigenous participants, with twice as many non-Indigenous (22%) compared with Indigenous prisoners (11%) attributing their most serious recent violent incident to illicit drug addiction.

Family Factors

Hemphill et al. (2009) found sole-parent status and family conflict increased the likelihood of future violence for male Victorian high school students. Earlier, Kenny and Lennings (2007a) identified that significantly more Indigenous offenders had separated or divorced parents compared with ESB offenders. Indigenous offenders ($n = 96$) also reported having more troubled family backgrounds than non-Indigenous offenders ($n = 146$), however, the author did not explicitly state these were risk factors for violent offending or incarceration. Kenny and Lennings did however, find that parental incarceration status was significantly different for Indigenous, compared with both ESB and CALD groups. For example, a higher percentage of Indigenous offenders had a parent previously in prison (69.6%), compared with ESB (28.6%) or CALD (13.9%) offenders; and had a parent currently in prison (20.5%) compared with ESB (6.1%) and CALD (2.9%) offenders.

Criminal History

Previous violence, arrest and incarceration strongly predicted future violence for male students in Australia, after controlling for social structural factors including low income, workless household and sole-parent status (Hemphill et al., 2009). Overall, previous violence was the strongest predictor of violent behaviour in Hemphill et al.'s analysis, increasing the risk of future violence (one year later) by five times.

Mental Health

Green et al. (2009) sought to investigate associations between the severity of violence and specific psychotic symptoms by analysing Queensland Mental Health Tribunal files for 160 men. Capgras delusions and command hallucinations were associated with homicide, threat/control override symptoms were associated with serious violence, while grandiose delusions were associated with occasioning bodily harm. These factors remained significant predictors of violent behaviour even after previous violence and substance use were controlled for (Green et al., 2009). McKetin et al. (2014) reported that the odds of violence increased two-fold (for drug users) when they were experiencing psychotic symptoms, after controlling for schizophrenia and mania. Overall, psychotic symptoms accounted for 22% to 30% of violent behaviour related to methamphetamine use (McKetin, 2014). Finally, having a diagnosis of conduct disorder increased the likelihood of violent offending for Indigenous participants, according to Kenny and Lennings. While Indigenous offenders were more likely to have had a diagnosis of conduct disorder than non-Indigenous offenders, the authors cautioned that the relationship between violence and conduct disorder was unclear (Kenny & Lennings, 2007a).

Head Injury

In Kenny and Lennings' (2007b) study, 85 participants (39%) reported having experienced a head injury in the past. Of these, 46% had committed no or mildly violent offences, 34% had committed moderately violent offences, and 20% had committed a severely violent offence. The rates of violent offending for those participants who had never had a head injury were similar, for instance 45% had committed no or a mildly violent offence, 46% had committed a moderately violent offence, and 10% had committed a severely violent offence. Statistical analysis revealed no significant difference in moderate to severe violent offending compared with non-violent or mildly violent offending, between groups with head injury and without head injury. Participants who had committed severe violent offences, however were found to have significantly higher rates of head injury, compared to those who committed less violent offences (20% versus 9.5%).

While the number of times participants had been unconscious had no effect on involvement in mild or non-violent offending, there was an effect on the likelihood of being involved in severe violent offending. These differences were not statistically significant, however, and the authors cautioned that it was difficult to tell if this was a real effect or a result of sampling variation (Kenny & Lennings, 2007b). Overall, Indigenous detainees (with or without head injury) had the lowest rate of severe violent offending; whilst CALD detainees (with or without head injury) had the highest rate (groups with and without head injury).

Education

Low school grades and low commitment to school significantly increased the risk of violent behaviour 12 months later for male students, by 2 and just over 2.5 times respectively (Hemphill et al., 2009). Putt et al. (2005) found that Indigenous participants generally reported lower levels of education than non-Indigenous participants, however lower education was not named as a significant predictor of violent offending as such.

Community and Social Factors

According to Hemphill et al. (2009), entrenched poverty and low income increased the risk of future violent behaviour at second assessment (12 months later) by 1.5 times for male students. Hemphill et al. also reported community norms favourable to drug use increased the risk of violent behaviour by 2.5 times, while community disorganisation increased the risk just over 2 times at the second assessment for the male students.

Age

Fagan and Western (2005) found that Australian school students and at-risk males, aged 15 to 19 years (adolescence), and 20 to 24 years (young adulthood), were at the highest risk for criminal behaviours including violence. The overall incidence of assault, however, was lower during early adulthood than adolescence, with a substantial decrease from timepoint one to timepoint two for the risk cohort (58% to 42%), and a small decrease for the school group (29% to 26%). Meanwhile, Putt et al. (2005) found that Indigenous Australian offenders were, on average, younger than non-Indigenous offenders, and highlighted some age-based trends. For example, Indigenous male police detainees were first arrested at a younger age compared with non-Indigenous detainees (14 compared with 19 years), however, the mean age of first offence was the same when aggregated across all offence types ($M = 15$ years). Furthermore, Indigenous male prisoners were younger than non-Indigenous offenders when they first committed violent offences (19 years compared with 20 years) and started regularly committing violent offences at a younger age than non-Indigenous offenders (18 years compared with 20 years). Similar to Putt et al, Kenny and Lennings (2007a) reported that Indigenous offenders started offending at a younger age ($M = 13.67$ years) than ESB ($M = 15.01$ years) or CALD ($M = 15.41$ years) offenders.

Culture

Fagan and Western (2005) initially included Indigenous participants in their study, but removed them from the sample, stating the low number of Indigenous participants precluded meaningful comparative analysis. However, they did add that analyses conducted with

Indigenous participants demonstrated no substantial differences in the findings. Kenny and Lennings (2007a) reported that Indigenous offenders committed significantly more offences ($M = 17.75$), than both ESB ($M = 12.61$) and CALD offenders ($M = 7.51$), however, CALD offenders committed more serious offences than the other groups. Overall, however, Kenny and Lennings found that serious violent offending was predicted by CALD status, and not by Indigenous status. For example, the rate of homicide as the most serious offence was much lower for Indigenous (1%), than CALD (16.2%) and ESB (5.8%) offenders. Using data from the DUMA and DUCO surveys, Putt et al. compared drug use and offending for Indigenous compared with non-Indigenous participants and found a statistically significant difference in the proportion of Indigenous compared with non-Indigenous prisoners who reported ever committing physical assault (72% and 58% respectively), and regularly committing physical assault (29% and 16% respectively). Despite these differences, both groups had similar rates of their 'most serious offence' being violent, for DUCO survey participants (58% Indigenous, 57% non-Indigenous) and for DUMA survey participants (28% Indigenous, 25% non-Indigenous).

2.2.3 Protective Factors Towards Violent Behaviour

The opportunity to be recognised for pro-social involvement, both within the community and at school, was outlined as protective against violent behaviour for Victorian high school students by Hemphill et al. (2009). Other protective factors against violence identified in the current review included emotion control and having a secure attachment to their mother as a child (Hemphill et al., 2009). The only protective factor identified for Indigenous Australian males was the emotion of shame. Shame was found to be important in regulating and protecting against alcohol-related violence for Indigenous Australians, in a small Indigenous community (Shore & Spicer, 2004). No other protective factors were identified for the Indigenous groups of participants.

2.2.4 Risk Factors for Incarceration

While Putt et al. (2005) did not specify that previous incarceration was a risk factor for future incarceration as such, Indigenous male prisoners did have more extensive experience of both juvenile detention and prison than non-Indigenous prisoners. A higher number of Indigenous male offenders (42%) had been in juvenile detention, or previously incarcerated (80%), compared with non-Indigenous male offenders, 26% of whom had been in juvenile

detention and 58% previously incarcerated.

2.2.5 Protective Factors for Incarceration

No protective factors towards incarceration were reported in the nine studies reviewed. Again, this does not signify that these factors do not exist, rather that the studies reviewed did not include protective factors for incarceration in their investigation or analysis or did not find statistically significant factors to report.

2.2.6 Differences in Factors for Indigenous Compared with Non-Indigenous Australians

The final aim of the review was to report on unique risk and protective factors relating to violent behaviour and incarceration, in particular for Indigenous Australian men. Only a small number of factors were identified that were unique to Indigenous participants. Shore and Spicer (2004) found disputes over traditional land ownership, past confrontations, and long running historical tensions surrounding mission settlement contributed to alcohol-related violence within the Indigenous Australian community. Shore and Spicer also revealed that the 'perceived success and privilege of other family groups within the community' increased violent behaviour for Indigenous Australian men, by adding tension and providing a catalyst for alcohol-related violence. It was noted that some families felt politically under-represented and that they were being denied access to opportunities within the community, and these tensions surface when people were drinking. Similarly, Putt et al. (2005) reported that while alcohol consumption often led to violence for Indigenous men, the underlying causes of the violence were unique factors including historical tensions, jealousy and strained relationships between family groups. Just one protective factor for violent behaviour was reported for Indigenous Australian males across the nine studies reviewed. As mentioned above, shame was found to reduce the likelihood of alcohol-related violence for Indigenous Australian men in a small Indigenous community, according to Shore & Spicer (2004).

2.3 Discussion

2.3.1 Risk Factors

Violent Behaviour

Consistent with the results of this review, alcohol consumption is a major preceding factor in a significant percentage of violent events for many individuals worldwide (Collins, 1981 cited in Hennessy & Williams, 2001; Wolf et al., 2014). Further, a significant proportion (23% to 73%) of reported assaults in Australia (Briscoe & Donnelly, 2001), and 55-87% of assaults resulting in head, neck, face and jaw trauma in Great Britain and Australia (e.g. Hutchison, Magennis, Shepherd & Brown, 1998; Verma & Chambers, 2015) are associated with alcohol use. While the association between alcohol use and violence is clear, as Livingston (2018) states, it is a highly complex relationship. Furthermore, the link is likely not directly causal, for example, alcohol may provide a socially accepted excuse for violent behaviour (d'Abbs et al., 1994; Shore & Spicer, 2004), or be used to self-medicate to cope with painful suppressed emotions (Lee et al., 2015; Khantzian, 1997). Illicit drugs have also been associated with violent behaviour in the Australian literature (McKetin et al., 2014). Consistent with this, cocaine and amphetamines/methamphetamine, for example, have been associated with increased aggressive and violent behaviour (Atkinson et al., 2009), while international research found violent behaviour was correlated more highly with adolescents' drug use than with other risk factors (Brook et al., 2003).

Community disorganisation, neighbourhoods with favourable attitudes towards drug use, association with violent peers, and social disadvantage were also identified as risk factors for violent behaviour for men in the current review (Hemphill et al., 2009; Shore & Spicer, 2004). Social disorganisation theory, which describes the relationship between neighbourhood disadvantage and crime (Shaw & McKay, 1942), may help to explain these findings. Factors such as low socio-economic status, ethnic heterogeneity and residential mobility disrupt a community's social organisation, leading to delinquent behaviour and crime (Shaw & McKay, 1942). Consistent with this, another social factor, overcrowded housing has also been identified as a risk factor for criminal behaviour overseas as well as in Australia. It is often the only housing option for families who rely on government assistance or low wage employment and situated in socially disorganised neighbourhoods (Corrado & Cohen, 2011). Additionally, unemployment is a risk factor for general criminal behaviour in communities with high levels of social exclusion or lack of social cohesion (AIC, 2012). This may be of particular relevance for many Indigenous

Australian communities, where some of the most marginalised and disadvantaged groups of people in the country are situated (ABS, 2010).

Consistent with Australian research (Hemphill et al., 2009; Putt et al., 2005), it is well recognised internationally that violent behaviour continues over time (Ellickson & McGuigan, 2000), and that future behaviour is best predicted by past behaviour (Farrington & Loeber, 2000). Repeated and chronic childhood exposure to community violence, either as a witness or a victim, can also lead to later aggressive behaviour (Donnelly & Ward, 2015). Violence within the family of origin does not, however, dictate that an individual will perpetrate violence as an adult (Edwards, Dixon, Gidycz, & Desai, 2014). Although connections have been made between childhood abuse (such as witnessing and being a victim of violence), distinct pathways and processes leading directly to perpetration of violence in the future have not been determined (Whiting, Simmons, Havens, Smith, & Oka, 2009).

Family conflict and having separated or divorced parents increased the likelihood of violence for Australian men (Hemphill et al., 2009; Kenny & Lennings, 2007a). Indeed, criminological theories of violent behaviour for young people include family as a central factor, as family is where most critical factors affecting children's development originate (Corrado & Cohen, 2011). Nevertheless, there is conflicting evidence for the role these factors play. For example, single parenthood may act as a risk for violent behaviour due to family conflict leading to divorce, however, it may also be protective when the child is no longer exposed to an abusive, violent or criminal parent (Corrado & Cohen, 2011).

The findings of Putt et al. (2005) and Shore and Spicer (2004) indicate that cultural discord, including historical conflicts and land ownership disputes, increase the risk of violent behaviour for men in some Indigenous Australian communities. This is supported by the knowledge that ongoing cultural dispossession, assimilation and separation of families over the past 200 years had devastating social, economic, physical and psychological consequences for many Indigenous people in Australia (Memmott, 2010; Memmott et al., 2001; Victorian Indigenous Family Violence Task Force, 2003). Indeed, a more recent report (Adams et al., 2017) conveyed that Indigenous people have long recognised this unresolved intergenerational trauma as a key driver of violence, particularly against Indigenous women and children, by Indigenous Australian men.

One study in this review found psychotic symptoms to be associated with violence for non-Indigenous Australian men (Green et al., 2009). Another mental health disorder, conduct disorder, was not a significant predictor of behaviour for Indigenous men, despite a higher

incidence and more severe diagnosis compared with ESB and CALD participants (Kenny & Lennings, 2007a). Despite various studies suggesting mental health disorders increase the risk of violent behaviour, people with mental health disorders are not major contributors to police-identified criminal violence (Stuart & Arboleda-Flórez, 2001; Jorm & Reavley, 2014). In fact, public perceptions of mentally ill persons as criminally dangerous appear to be greatly exaggerated (Stuart & Arboleda-Flórez, 2001; Jorm & Reavley, 2014).

Kenny and Lennings (2007b) found a significant relationship between head injury and severe violent offending in young offenders in juvenile detention. This finding is consistent with findings for adult violent offenders (Kenny & Lennings, 2007b). Head injury, including Traumatic brain injury (TBI) has also been associated with violent offending for young people in overseas literature. For example, Huw-Williams, Cordan, Mewse, Tonks and Burgess (2010) reported that a higher number of TBIs (self-reported) was associated with a greater severity of violence in offences for a group of young offenders. Huw-Williams et al suggest that many young, violent offenders may have neuropsychological dysfunction that may be associated with irritability and disinhibited behaviour, leading to continued violence, even within custodial settings. Other research from Australia also reports that head injury / TBI can lead to violent offending for Indigenous Australians (for example, Jamieson, Harrison & Berry, 2008).

Consistent with Shore and Spicer (2004), international research confirms that jealousy can predict the perpetration of violence by both men and women (Langhinrichsen-Rohling, McCullars, & Misra, 2012), and sexual abuse perpetrated by men (Sesar, Pavela, Šimić, Barišić, & Banai, 2012). Jealousy was also noted as a key motivating factor for sexual violence, for both men and women, in a remote Australian Indigenous community (Senior, Helmer, & Chenhall, 2016). Young men described jealousy as a major problem in their relationships, most often with private retaliation towards their partner. Women described being jealous of other women trying to take their partners from them, often leading to public retaliation such as fighting. While jealousy has been identified in the current review as a unique factor for Indigenous participants, this does not suggest that it is not relevant for non-Indigenous men, rather, there is a lack of empirical research investigating this phenomenon in Australia.

The findings by Fagan and Western (2005) that adolescents and young adults aged 15 to 24 years were at a higher risk for violence and criminal behaviour than other Australians is supported by statistical data. For example, in 2014/2015 the national offender rate was highest for the 15 to 19-year age group, while in Queensland, the main offender age group was aged 20 to 24 years (ABS, 2017c). As Fagan and Western (2005) reasoned, however, delinquency may

simply be a rite of passage undertaken by most youth at some point during teenage and early adult years.

Incarceration

Supporting the current review, a clear link between low educational achievement and involvement in the justice system has been established. For example, Weatherburn et al. (2006) analysed data from the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), for both men and women, and found respondents who completed Year 9 or below had a 1 in 2.4 chance of being charged with an offence and a 1 in 10 chance of being imprisoned, compared with those who stayed at school longer. Furthermore, Canadian research shows that early school problems and poor performance were strong risk factors for anti-social and criminal behaviour for Indigenous youth (Corrado & Cohen, 2011).

Differences in Factors for Indigenous Compared with Non-Indigenous Men

Differences in factors were identified between Indigenous and non-Indigenous participants, for example Indigenous offenders were younger, had lower school grades, and committed more offences including higher rates of physical assault compared with non-Indigenous offenders (Kenny & Lennings, 2007a; Putt et al., 2005). Despite this, CALD, rather than Indigenous status predicted serious violence (Kenny & Lennings, 2007a). There are proponents of a cultural theory of violence, in that violence is a fundamental element of traditional Aboriginal culture. For example, Nowra (2007) argues that contemporary family violence in Indigenous communities has its roots in inherently violent and misogynist traditional law and practices. Rates of violence, however, are not higher in communities on traditional homelands, where adherence to traditional law, clan obligations and ceremonies remains strong (Wundersitz, 2010). Further, there is no evidence that Aboriginal Law is the reason for high levels of violence in Indigenous communities (Wundersitz, 2010). Indeed, the argument that violence is an inherent feature of Indigenous culture is rejected widely (Snowball & Weatherburn, 2008).

2.3.2 Protective Factors

Violent Behaviour

The findings by Hemphill et al. (2009) add further support that attachment and commitment to school may protect against behaviours, such as violence, that violate socially accepted norms (Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999). Graduating from high school also corresponds with a significant reduction in the risk of incarceration for many students

(Lochner & Moretti, 2001). Beginning as early as preschool, positive school experiences and learning achievements have lifelong protective effects against antisocial and criminal behaviours (Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011).

The protective influence of 'prosocial involvement in the community' against violent behaviour (Hemphill et al., 2009) is consistent with social development theory. This theory suggests that when social groups produce strong bonds of attachment and commitment, clear standards for behaviour in members are promoted, ensuring an increase in behaviour consistent with, and preventing behaviour that violates, these standards (Hawkins et al., 1999; Hawkins & Weis, 2015).

Hemphill et al. (2009) identified emotion control and secure parental attachment as protective against future violent behaviour for Australian male students. Supporting this, British research shows that emotional skills are important protective factors against perpetrating bullying and violent behaviour for youth (Polan et al., 2013). In addition, secure parental attachment is thought to enhance health and wellbeing and buffer the effects of negative life events (Izard, 2002), and can compensate for the cumulative effects of prior violent behaviour, victimisation, substance use, and school problems that may contribute towards the perpetration of violent behaviour (Fergus & Zimmerman, 2005).

Shame was also deemed protective against violent behaviour for Indigenous Australians (Shore & Spicer, 2004). Indeed, shame has been shown to decrease the link between emotional vulnerability and aggression for men (Bierbrauer, 1992). Acting as a form of social control, other's judgement of an individual's behaviour is the modulating force against 'bad' behaviour (Bierbrauer, 1992). This may be of particular significance for traditionally collectivist cultural groups, including traditional Indigenous Australian communities, who may respond with a higher degree of shame as a consequence of norm violation compared with the response from those in individualistic societies (Bierbrauer, 1992).

Incarceration

Australian findings are consistent with international research showing that improved school performance and retention can reduce the risk of an individual's involvement in crime and with the criminal justice system (Barnert et al., 2015; MacKenzie, 2002). In an Australian study analysing data from the 2002 NATSISS survey, Indigenous Australians (male and female) who stayed at school until Year 12 were less likely to be charged (1 in 5 chance) or imprisoned (1 in 30 chance) than those who left school earlier (Weatherburn et al., 2006).

2.3.3 Limitations of Studies Reviewed

The use of cross-sectional designs (e.g. Kenny & Lennings, 2007a, 2007b; Putt et al., 2005) limits the ability to establish whether risk or protective factors existed prior to the outcomes (or absence) of violence and incarceration. Longitudinal research is required to provide more robust evidence into whether risk and protective factors do in fact increase or decrease the risk of violence and incarceration. Reliance on self-report data in various studies increased the chance of social desirability bias, and possible problems with disclosure about sensitive issues such as violent offending and incarceration (Kenny & Lennings, 2007a, 2007b; Putt et al., 2005). As Green et al. (2009) conducted a file review, reports and files may have varied in quality, such as possible over-reporting the seriousness of charges. Additionally, data collected in the 1990s (Fagan & Western, 2005; Shore & Spicer, 2004) may not reflect causal influences on violent behaviour and incarceration in Australian society today. Further, studies using psychological scales whose Western constructs may not have been culturally appropriate for Indigenous Australians may have distorted the results (e.g. Kenny & Lennings, 2007a). Such scales, however, have mostly demonstrated cross-cultural applicability in previous assessment studies (Allan & Dawson, 2002; Shepherd, Luebbers, Ferguson, Ogloff, & Dolan, 2014). Sampling bias, undermining external validity and the ability to generalise findings to other groups, may also have been present in various studies (Green et al., 2009; Hemphill et al., 2009; Putt et al., 2005; Shore & Spicer, 2004).

Confounding variables may have also distorted results, for example Green et al. (2009) did not control for personality disorder, while Scholes-Balog et al. (2013) conceded that associations found between alcohol use and violence may have been due to other unmeasurable influences. Additionally, Green et al. (2009) assumed the seriousness of the legal charge was related to the severity of violence. Longitudinal studies however strengthened the validity of findings in various studies (Hemphill et al., 2009; Scholes-Balog et al., 2013; Shore & Spicer, 2004), as did large sample sizes (Hemphill et al., 2009; Putt et al., 2005).

Several factors were identified that were particularly important to Indigenous participants. These include shame which was protective against aggressive and violent behaviour, as discussed above, and jealousy – a contributor to alcohol fuelled violence in many Indigenous communities (Shore & Spicer, 2004). While these factors were significant for Indigenous Australian participants, the lack of non-Indigenous comparison groups makes it impossible to draw any conclusions about their uniqueness for Indigenous Australians.

2.4.4 Further Research

It is evident that alcohol use is a major contributing factor towards violent behaviour and incarceration for Australian males, however, it cannot be established as a causal factor. Further research is required to examine the underlying causes of alcohol-related violence. Associations between violent behaviour, incarceration, and mental health disorders, and the perceived versus actual risk of violence, also warrant investigation due to the conflicting results found in the existing research. Furthermore, additional investigation of specific risk and protective factors for preventing violent offending and incarceration for Indigenous men is of great importance, given the high number of Indigenous offenders incarcerated in Australian correctional centres for violent offences.

An emphasis on reporting of qualitative associations between factors and outcomes, due to a lack of nuanced understandings of these processes, is required. Qualitative research with Indigenous and non-Indigenous offenders and non-offenders from a variety of geographical regions is justified. This may lead to the discovery of patterns of behaviours depending on variables including environment, cultural background and place of residence during childhood and adolescence. The investigation of these factors at crucial developmental periods including childhood, adolescence and early adulthood is of great importance. Early intervention and crime prevention initiatives at a community level, where the combination of risk and protective factors is precariously balanced, is crucial to breaking the cycle of violence and incarceration for young men.

The current literature review sought research conducted in the North / Far North Queensland region with Indigenous and non-Indigenous men, pertaining to risk and protective factors for violent behaviour and/or incarceration. This type of research has not been conducted in this geographical area, as confirmed by the lack of research found during this review. Only one study was conducted in rural Queensland, while other locations included regional/urban Queensland, Victorian city/regional areas; New South Wales juvenile detention centre; Sydney and Brisbane city; and Queensland, Western Australia, Northern Territory, New South Wales and Tasmanian adult inmates (no further information given on where the inmates usually resided). Five of the studies had young adult/teenage samples, the rest with adults; while only three studies included Indigenous Australian men, the remainder did not specify the culture of participants. Taking this into consideration, there is a clear lack of research into these factors in the geographical region for the population under question. As highlighted in Table 2, the population in North and Far North Queensland region does differ considerably from many other

regions, especially urban/regional areas, therefore this review exposes a significant gap in research, that should be addressed in future studies. Indeed, as mentioned in the Introduction chapter, previous research has tended to focus on risk-based models of why individuals commit crime, including violent crime (Farrington et al. 2016). As the majority of individuals in Australia do not in fact commit violent crimes, there is an urgent need to investigate why certain individuals can grow up with adversity and abstain or desist from violent criminal behaviour (Tomison, 2010).

2.4 Conclusion

The first aim of this review was to consolidate and critique studies that reported on risk and protective factors for violent behaviour and incarceration for Australian men. Overall, nine studies were reviewed, with risk and protective factors identified for violent behaviour for both Indigenous and non-Indigenous men; and risk factors identified for incarceration for Indigenous men but not for non-Indigenous men. Finally, there were no protective factors reported for incarceration for Indigenous or non-indigenous men in any of the studies reviewed.

Aim 2 was to report on risk and protective factors for violent behaviour and incarceration. Risk factors for violence that were identified in the studies included alcohol and drug abuse; family conflict and problems; low education levels and poor school grades; economic disadvantage; previous violent behaviour, arrest and jail; exposure to violence as a child; head injury; and psychotic symptoms. For Indigenous Australians in particular, risk factors for violent behaviour included conduct disorder, historical tensions and jealousy. Protective factors against violence for non-Indigenous men included emotion control; secure attachment to a primary caregiver or mother; and high educational attainment and connectedness to school. Shame was identified as a protective factor against violence for Indigenous men.

The only risk factor reported for incarceration for Indigenous men was having a parent previously incarcerated. No risk factors were identified for incarceration for non-Indigenous men. This does not signify that these factors do not exist for non-Indigenous men in Australia, it merely reflects the dearth of this kind of information in existing Australian studies. Similarly, no specific protective factors for incarceration for Indigenous or non-Indigenous men were identified in this review, also most certainly due to the lack of formal studies in this area.

The third aim was to identify unique risk and protective factors for Indigenous Australian men. Risk factors for violence that may be unique to Indigenous men include historical conflicts and tensions and jealousy. The only unique protective factor against violence for Indigenous men was shame. It is unknown, however, if these factors are indeed unique to Indigenous men, due to the lack of empirical studies with comparison groups of non-Indigenous men in these areas.

Variations between the eight studies in methodology, operational definitions of the dependent and independent variables, sample size, location, culture and demographics in each study limited the ability to compare the results with confidence. Consequently, the results of these studies, either individually or collectively, cannot be generalised outside of their sample

populations with any certainty. Additionally, the small number of empirical studies that were available limited the ability to compare factors for Indigenous and non-Indigenous Australian men; or report comprehensively on factors for incarceration for either group.

Further research is required to investigate and explore risk factors but also in particular protective factors towards incarceration and violent behaviour for both Indigenous and non-Indigenous men in Australia. Many Australians, both Indigenous and non-Indigenous, experience numerous risk factors and do not offend, therefore research investigating what stops and inhibits violent behaviour is required. There is also a lack of empirical research of this type with men in North Queensland, a unique setting with a mixture of regional and remote cities and towns with their own specific social and economic issues. These include exceptionally high rates of violence and incarceration, particularly for Indigenous men. It is imperative that such studies are conducted, to gain knowledge and inform future efforts for early intervention and prevention programs, in a bid to reduce the very high rates of violence and incarceration in many of these isolated and challenging locations.

Now that the results of the literature review have been discussed, the next section to be presented is Chapter 3. This chapter describes in detail the methodology for Phase 1 (qualitative) and Phase 2 (quantitative) of the research project.

Chapter Three: Methodology

3.0.1 Ethics Approvals

Approvals were granted from James Cook University (JCU) Human Research Ethics Committee (H5273 and H5983), and from Queensland Corrective Services (QCS) research committee (see Appendix E). Annual progress reports related to these approvals were provided to the relevant ethics and research committees as required.

3.0.2 Data Sources

Data for this thesis is drawn from a two-phase research project, incorporating an interview phase followed by a survey phase. This study was conducted in North Queensland, Australia. Participants included inmates incarcerated at Lotus Glen Correctional Centre (LGCC), a high security, all male correctional centre, and community members primarily residing or working in the geographical regions within North Queensland where LGCC inmates would normally reside. Data collection during the interview phase of the project was conducted from January until April 2014, while surveys were completed between March and April 2015.

3.0.3 Study Setting

The target population for participants in the current study were primarily from the geographical areas of North and Far North Queensland, including Townsville and Mt Isa, Cairns, remote areas of Cape York Peninsula, and the Torres Strait Islands (See Figure 4, Remoteness Index Map of Queensland). These areas are collectively referred to as *North Queensland* throughout this thesis.

Far North Queensland

Far North Queensland covers an area of 339,606 kilometres, covering a large portion of the Queensland coastline. The region stretches from the city of Cairns, north to the Torres Strait Islands and west to the Gulf Country, and lays claim to the most northerly point of Australia. Far North Queensland is the northernmost and largest part of Queensland, covering 20% of the state (Business Queensland, 2017). The main population and administrative centre for the region is the city of Cairns. Other key population centres include Cooktown, the Atherton Tablelands, Weipa, Innisfail and the Torres Strait Islands.

As of 2017 the population of Far North Queensland was approximately 283,864 people, representing 5.7% of Queensland's total population and 1.2% of Australia's total population (Queensland Government Statistician's Office [QGSO], 2018). Based on current trends, the region is predicted to grow by an average of 1.4% per year to 2031 (Business Queensland, 2017). Aboriginal and Torres Strait Islander (Indigenous) peoples made up 15.2% of the total population of the Far North Queensland region, representing approximately 22.2% of the state's total Indigenous population (QGSO, 2018). In 2011, 13.4% of the far north's population spoke a language other than English at home. Over 88.6% of people in Far North Queensland live in outer regional centres, with the remaining 11.4% residing in remote or very remote locations (ABS, 2011b, 2013; QGSO, 2018).

North Queensland

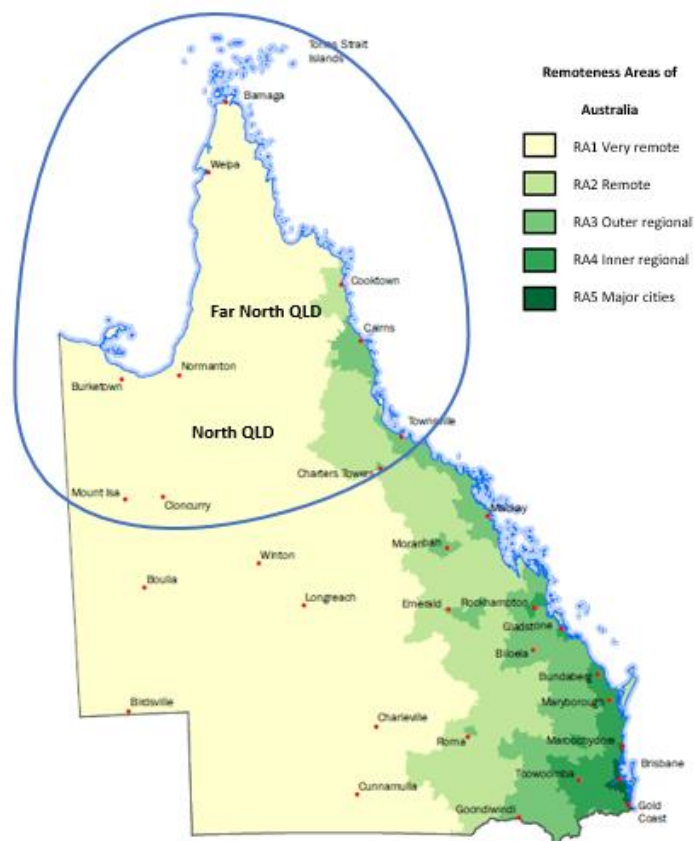
The main administrative centres for North Queensland are Townsville and Mt Isa. In 2017, the population of North Queensland was approximately 235,683 people (QGSO, 2018). Townsville is Australia's largest tropical city, home to 87% of the North Queensland population, and is the main government and business support centre (Business Queensland, 2017). The economic strengths of North Queensland, which encompasses the area from Townsville to Mt Isa and from Ayr to Ingham, have been built upon its diverse natural resources. The environmental landscape includes rich agricultural soils, abundant water, extensive grazing areas and mineral resources (Business Queensland, 2017). Also see Table 2 for population information for these regions.

Geography and Accessibility of the Study Setting

Many areas in North and Far North Queensland (North Queensland) are classified as rural, remote or very remote. Towns and communities in these areas often have limited access to many goods, services, opportunities for employment, education or social interaction. The Accessibility/Remoteness Index of Australia (ARIA+) is an index of the accessibility of places to service centres, or conversely of remoteness of places. Geographical areas are given a score (continuous between 0 to 15) based on the road distance to service towns of different sizes (Queensland Treasury and Trade, 2017). The Remoteness Index Map of Queensland (Figure 4) outlines the geographical location of these remoteness areas (RA). The ARIA+ was used to determine the RA of residence for each study participant (see Table 6).

The main categories and their ARIA+ scores include:

- *RA1. Major Cities* - Highly accessible (ARIA score $0 \leq 0.20$) - relatively unrestricted accessibility to a wide range of goods, services and opportunities for social interaction;
- *RA2. Inner Regional* - Accessible (ARIA score greater than 0.20 to ≤ 2.40) - some restrictions to accessibility to some goods, services and opportunities for social interaction;
- *RA3. Outer Regional* - Moderately accessible (ARIA score greater than 2.40 to ≤ 5.92) - significantly restricted accessibility to goods, services and opportunities for social interaction;
- *RA4. Remote* - (ARIA score greater than 5.92 to ≤ 10.53) - very restricted accessibility to goods, services and opportunities for social interaction; and
- *RA5. Very Remote* - (ARIA score greater than 10.53 to ≤ 15) - very little accessibility to goods, services and opportunities for social interaction (Queensland Treasury and Trade,



2017).

Figure 4. Remoteness index map of Queensland Note. Reprinted from ABS, 2014b;

Australian Government, 2006.

3.0.4 Important Differences Between Populations in Various Regions of Queensland and Australia

As Table 2 shows, there are some important differences in the populations of North and Far North Queensland, when compared with both Queensland and Australia as a whole. Firstly, the population of Indigenous persons varies greatly within Australia and Queensland. Indigenous Australians typically represent around Australia typically 2.8% of the population, while for Queensland as a whole that figure rises to 4.0%. In the far north of the state, up to 53.6% of the population identify as Indigenous Australian (Queensland Government Statistician's Office, 2016, 2018). Further, the majority of people in the Far North Queensland region live in Very Remote areas (RA5), at 68.4%, compared with Queensland as a whole, at just 1.1%. As for socio-economic status, in 2016 62.9% of Far North Queensland's population were within the most disadvantaged SES quintile in the country, compared with North Queensland at 24.4% and Queensland as a whole at 20.0%. Median household incomes also vary considerably between these regions. In Australian, the median household income, as of 2016, was \$1438.00 (Australian Dollars), compared with North Queensland (from \$1106-1424), and Far North Queensland (\$1184). Unemployment in the far north of the state was around 17.6% as of 2018, which is much higher than the Australian rate of 5.0%. (Queensland Government Statistician's Office, 2016, 2018).

While education levels show less variation across the regions than the rates of other factors in Table 2, in Far North of Queensland in 2016, only 45.0% of the population had completed high school to Year 11 or 12, compared with 55.3% for North Queensland, 58.9% for Queensland, and 60.2% for Australia as a whole (Queensland Government Statistician's Office, 2016, 2018). Incarceration rates are very high in the North of Queensland, with 2015 rates for Indigenous prisoners at 1867/100,000 of the Indigenous population, compared with Queensland as a whole at 1744.9/100,000 of the population. Typically, the incarceration rates for Indigenous Australians are around 10 times higher than for non-Indigenous Australians. The overall incarceration rate for Indigenous Australian people in 2018 was considerably higher than these areas, at 2504/100,000 (ABS, 2015, 2016c; AIC, 2018).

While data for the rates of imprisonment of indigenous persons in Far North Queensland was not available for comparison, in one correctional centre in this region up to 71% of the inmates at any one time are Indigenous Australian persons (Queensland Corrective Services, 2015). In 2017, rates for Offence against Person were extremely high in the Far North Queensland region, ranging between 274 and 11,886/100,000 of the population. This is

considerably higher than the rates for North Queensland (1294 to 1472/100,000), Queensland (730/100,000), and Australia at 751/100,000 (AIC, 2018). From this evidence, it is clear that that compared with the rest of Australia, and Queensland as a whole, the population of North and Far North of Queensland face many disadvantages and challenges that the rest of the country may not experience. In turn these differences likely have a direct effect on the kinds of risk and protective factors towards both violent behaviour and incarceration that may be important for this population, and distinct from factors for people in other areas of Australia.

Table 2. Comparison of Rates of Population, Indigenous Population, Incarceration, Offence Against Person, Highest Education Level, Unemployment, Household Income, SES, and Remoteness Between Far North and North Queensland Statistical Area (SA3) Regions, the State of Queensland, and Australia.

Category and Year of Data	Far North QLD* (SA3)	Far North QLD plus Cairns# (SA3)	North QLD^ (SA3)	Queensland	Australia
Population, 2017	34119	283,864	235,683	4,929,152	23,401,893
Indigenous Population, 2017	53.6% (17,354)	15.2% (41,316)	7.9% (18,010)	4.0% (186,482)	2.8% (649,171)
Remoteness area, 2016:					
Outer regional (RA3)	16.1% (5,493)	88.6% (251,503)	96.6% (227,669)	14.2% (699,939)	
Remote (RA4)	15.5% (5,288)	3.3% (9,367)	3.1% (7,306)	1.5% (73,937)	Data not available
Very remote (RA5)	68.4% (23,337)	8.1% (22,992)	0.3% (707)	1.1% (54,220)	
% Persons in SES quintiles, 2016:					
Most disadvantaged	62.9% (21,460)	34.7% (98,500)	24.4% (57,506)	20.0% (985,830)	Data not available
Least disadvantaged	4.3% (1,467)	10.8% (30,657)	13.7% (32,288)	20.0% (985,830)	
Household income (median weekly) \$AUD, 2016	\$1,184	\$1009-\$1554	\$1,106-\$1,424	\$1,402	\$1,438
Unemployment rates, 2018	17.6% (6,004)	7.5% (21,289)	9.1% (21,447)	6.1% (300,678)	5.0% (1,170,094)
Education – highest level year 11/12, 2016	45.0% (10,495)	53.7% (111,815)	55.3% (97,175)	58.9% (2,146,809)	60.2% (14,064,537)
Incarceration rates/100,000 population, 2018					
All persons	Data not available	Data not available	Data not available	227.2/100,000^^	221.4/100,000###
Indigenous persons			≈1867/100,000 (2015)	1744.9/100,000^^	2504.7/100,000###
Non-Indigenous persons			Data not available	175.1/100,000^^	164/100,000###
Offence against person (OAP**) rates/ 100,000 population, 2017	274 – 11,886/100,000	1252 - 2747/100,000	1294 - 1472 /100,000	730/100,000	750.9/100,000

*Far North QLD (SA3) Aurukun, Cape York, Croydon – Etheridge, Kowanyama - Pormpuraaw, Northern Peninsula, Tablelands, Torres, Torres Strait Islands and Weipa

Far North QLD and Cairns (SA3) Far North – Port Douglas – Daintree - Cairns - Innisfail – Cassowary Coast – Tablelands (East) – Kuranda

^North QLD (SA3) Charters Towers – Ayr – Ingham – Townsville **OAP includes Homicide and related offences; Acts intended to cause injury; Sexual assault and related offences; Dangerous /negligent acts; Abduction / harassment; Robbery/ extortion. ^^These rates are age-standardised. ###These rates are crude rates.

3.1 Methodology - Phase 1 Qualitative Study – Interviews

In-depth interviews were conducted with 19 inmates from Lotus Glen Correctional Centre (LGCC), a high security correctional centre for men, located in Mareeba, in the north of Queensland. A further 20 participants from the surrounding region and communities were interviewed, giving a total sample size of 39. This section explains the methodology for Phase 1 of the study. The overall methodology is depicted in Figure 5.

3.1.1 Aim of Interviews

The aim of the interviews was to explore and document participants' experiences and attitudes concerning risk and protective factors relating to violent behaviour and incarceration, relating to themselves or other men from the North Queensland region. The information gained from these interviews was then used to formulate a survey to be circulated to a wider population, to ascertain whether the interview data was consistent with the experience and opinions of a broader range of people. The differences in factors between Indigenous and non-Indigenous Australians were also to be explored, to determine if there were any common, or any unique factors for these two groups.

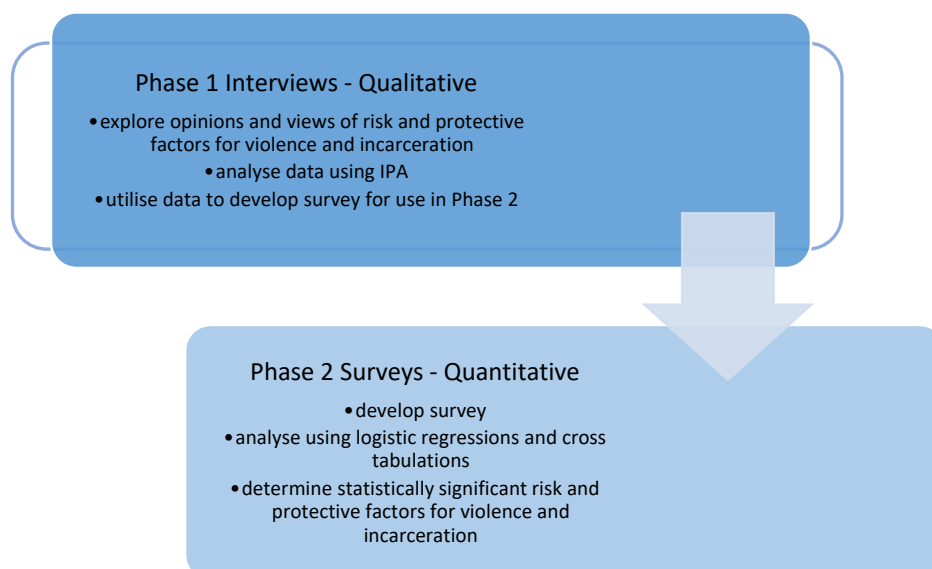


Figure 5. Visual representation of methodology for Phase 1 of research project

3.1.2 Study Design

Qualitative research methods use open-ended techniques, including interviews and focus groups to collect data. Non-statistical data analysis provides detailed, diverse understandings of individuals' experiences, imparting useful quotes to bring pragmatism to applied research, and information about how different research settings operate (Forman, Creswell, Damschroder, Kowalski, & Krein, 2008). Qualitative research can highlight the processes underlying statistics, inform intervention development, and demonstrate how interventions produce different outcomes (Forman et al., 2008). The methodology for the interviews in the current study was based on the understanding, experience and opinions acquired by initially working with a small sample of knowledgeable participants, in line with interpretative phenomenological analysis (IPA) (Smith & Osborne, 2003), therefore, four female participants were also included to ensure their perceptions and views were heard.

When compared with other methods, IPA was determined to be the most suitable type of analysis for this exploratory study, for several reasons. Firstly, content analysis aims to generate a quantitative analysis of discrete categories from qualitative data, whereas IPA retains the narrative depiction as of paramount importance (Brocki & Wearden, 2006). Grounded theory on the other hand moves beyond description, aiming to generate theory or discover theory for a process or action. The data provides an explanation of the process or action shaped, or 'grounded' by the views of many participants, by reaching saturation. While discourse analysis was also considered, it was discounted as it is not concerned with cognitions, as IPA is (Brocki & Wearden, 2006). The final IPA analysis provides a detailed interpretative exploration of themes as experienced by the participant and explores how these have occurred over time. It is over time that the processes in which IPA is interested in, are able to unfold (Brocki & Wearden, 2006). Table 3 describes the IPA analysis process in detail.

3.1.3 Sample Recruitment Method

IPA requires a closely defined, more homogenous group of participants for whom the research question will be significant (Smith & Osborne, 2003). The non-randomised snowballing recruitment method used for the current study ensured participants were familiar with the topics under exploration, including knowledge and experience of the risk and protective factors involved in the pathways to violent behaviour and incarceration from childhood through to adulthood. This type of non-randomised recruitment, known as purposive sampling, is acceptable for exploratory, qualitative research as participants are selected based on their knowledge of the

topic of interest (Babbie, 2016). While selection bias may have been present, as the sample was selected from a specific target group (incarcerated males and community members from North Queensland), it was the most appropriate sampling method available to the researcher, considering both study design, logistics, time and financial constraints.

The method, as recommended by Voicu (2011), ensured hard-to-reach members of the specific population (including those from remote Indigenous communities, and within the prison environment) were located. As there are no lists or other obvious sources for locating participants in a study such as this, previous contact and communications with known associates were used to then gain access to new participants. Another important consideration is that research within Indigenous Australian communities relies on partnerships, cooperation and trust, therefore it was imperative to establish good relationships with key members of these communities to be granted permission to visit and conduct the study in the first instance. For these reasons, random sampling would not be possible or practical in these areas.

To recruit community participants for the interviews, a snowballing technique was used, including word of mouth and networking. Prison participants were recruited in a non-randomised manner, due to restrictions on who was able to participate. While the sample in the current study was relatively small ($n = 39$), qualitative analyses typically require a smaller sample size than quantitative analyses. Sample sizes only need to be adequate to obtain feedback for most or all perceptions until saturation is reached. Saturation occurs when adding more study participants does not result in new information or perspectives (Glaser & Strauss, 1967; Saunders et al., 2018). There are no specific rules for determining an appropriate sample size in qualitative research, however recommended sample sizes have been suggested in the past. For example, at least six participants (Morse, 1994), 5 to 25 participants (Creswell, 1998), or until saturation is reached (Glaser & Strauss, 1967; Saunders et al., 2018). Thematic saturation was reached, as agreed upon by BH, NC and AC (co-authors) with the sample who were interviewed in the current study. Other considerations, including the time allocated for data collection, available resources for the project, and the objectives of the study were also taken into account when deciding whether adequate participants had been recruited and interviewed.

Table 3. Interpretative Phenomenological Analysis Process

IPA stage	Description of IPA stage
<i>Individual case</i>	Close, line by line analysis (coding) of the interview, including claims, concerns and understandings of each participant
<i>Identify emerging patterns</i>	Within material emphasising convergence and divergence, commonality and nuance, first for single cases then across multiple cases
<i>Develop dialogues</i>	Between researcher, coded data and psychological knowledge about what it might mean for participants to have these concerns in this context; leading to the development of a more interpretative account
<i>Develop structure</i>	To illustrate the relationship between themes
<i>Organise material</i>	Into a format that allows coded data to be traced back through analysis – from initial codes in transcript, clustering and theme development - into final structure of theme
<i>Supervision/collaboration</i>	To audit, help test and develop the coherence and plausibility of the interpretation and explore reflexivity
<i>Develop narrative</i>	Evidenced by detailed commentary on data extracts, which takes the reader through this interpretation usually theme by theme and supported by some visual guide (simple table or heuristic diagram)
<i>Reflection</i>	On one's own perceptions, conceptions and processes should occur throughout the process and is usually captured in a systematic fashion, such as a reflexive journal

Note. Adapted from Larkin and Thompson (2012).

3.1.4 Interview Script

LGCC Participants

Interviews were conducted using an unstructured *research yarning*-style approach of listening, talking and observing, congruent with cultural processes for Indigenous participants, and also suitable to use with non-Indigenous participants (Bessarab & Ng'andu, 2010). This yarning style used in the current study was not necessarily a fixed method of interviewing, rather a yarning style of communication, used in order to build trust and rapport with the participants. Participants will not automatically bring up the information that is required for the qualitative study, therefore prompts were used when necessary to gather this information. As information related to violence and incarceration was required for this study, the interviewer used the various prompts to begin discussion on these topics. The general interview started with “Tell us

your story - how did you end up in prison?" tell us why you are here" or a general chat about football, the weather, some other topic to build rapport. Once established, the researchers guided the interview using various topic prompts. Participants were also initially asked their age, marital status, education level and occupation prior to prison.

Various topics were explored including participants' histories of violent behaviour and incarceration, attitudes towards incarceration, reasons for their offence/s, and thoughts on what may have kept them out of prison if circumstances were different. Where consent was provided by the participant, interviews were audio recorded and transcribed verbatim by the principal researcher or research assistant at a later time. Some interviews were not recorded, for example when participants preferred or when circumstances did not permit. Each interview was between 30 minutes to an hour duration, allowing ample time for each participant to describe their experiences in rich detail and for the researcher to probe topics of interest in depth.

Community Participants

Participants were initially asked to provide demographic information, including their age, marital status, education level, occupation, culture and religion (See Appendix G for full demographic question list). Then, using a checklist to guide the interviews (Appendix H), participants were asked open-ended questions including:

- "What do you think are the reasons that young men in North Queensland become violent and end up incarcerated?" and
- "What are the factors that could prevent young people in North Queensland from becoming violent and being incarcerated?"

This unstructured, yarning style of interview enabled the disclosure of rich accounts of participant experiences in a non-threatening way. It also allowed the researcher flexibility to probe interesting and significant areas that emerged as the interview progressed. Topics explored with community members included what they thought were the risk and protective factors for young men towards violent behaviour and incarceration, and how these problems could be prevented in the future. There was also discussion on why community participants and inmates thought they differed from each other, particularly relating to their childhood experiences and upbringing, and how these influenced their adult life.

3.1.5 Participant Recruitment

LGCC Recruitment

Research in the custodial setting must comply with all requirements, protocols and schedules of Queensland Corrective Services (QCS). Accordingly, the manager of residential accommodation (MRA) at the correctional centre was delegated responsibility by LGCC's general manager to recruit inmates who were both suitable and willing to participate in the study. The MRA approached inmates who met the following inclusion criteria for the study: must be aged 18 years or over; be able to speak and understand English; be incarcerated (either sentenced or on remand) for violent offences; and be physically and psychologically capable and willing to participate in the study.

The MRA was also required to consider the inmate's work schedules and behaviour when recruiting participants. The study was described to the potential participants by the MRA, and if interested, they were provided with an information sheet (Appendix I) to explain the study and asked to sign an informed consent form (Appendix J) which was returned to the MRA. The MRA then contacted the researcher to advise the number of participants who had been recruited and arranged a suitable date and time for the researcher to attend the centre to conduct the interviews. The set of interviews was completed over several weeks to accommodate prison routines, prisoner work schedules, availability to attend the interview session, and any other unexpected events occurring within the prison, such as lockdowns and behavioural issues of potential participants.

Community Recruitment

Following the compilation of a list of potential community participants, based on networking and snowballing methods of recruitment, individuals were initially emailed or telephoned directly to gain their consent to be interviewed. Assistance was sought from an Indigenous research assistant to identify potential interview participants within remote Indigenous communities. Once a participant had agreed to an interview, a suitable time and place was arranged, with the researcher/s attending the location, providing each participant with an information sheet (Appendix I), and informed consent form (Appendix J), and gaining written consent from each participant prior to any interviews taking place. Interviews took place in locations that the participants and researchers were comfortable with, including community centres, places of business, and private residences.

3.1.6 Data Collection

LGCC Data Collection

Upon arrival to LGCC, the MRA provided the researchers with the list of participants and their signed informed consent forms. The principal researcher, together with an experienced research assistant conducted interviews in a private room in the residential accommodation division. This allowed confidentiality for all participants and enabled them to comfortably disclose information relating to sensitive issues that may have arisen. The MRA or other prison officers were always on hand to ensure the safety of the researchers and the wellbeing of participants during the interview process. Prior to commencing the interview, each participant was again provided with written and verbal information on the study and asked if they were still willing to participate. This ensured that the participant fully understood the nature of the study and what their participation entailed and offered them an opportunity to decline participation if desired.

To minimise any distress arising from the interviews, and in accordance with QCS research committee and JCU ethics requirements, participants were advised that counselling was available following the interviews if required. Furthermore, participants were advised that, while interviews were strictly confidential, ethical standards and QCS research committee regulations regarding when confidentiality should be breached were in place. These regulations stipulated that if participants divulged information relating to plans for self-harm, harm to others, or about any previously undisclosed crime, then these details must be reported to prison staff by the researchers.

Community Data Collection

Research staff met with each participant at a location of the participant's choice, typically private offices or meeting areas that would ensure confidentiality so that the participant felt comfortable to discuss any sensitive issues. Each participant was provided with an information sheet and informed consent form (Appendix I and J), and the nature of the study was verbally described to each participant. Participants were asked if they were still willing to participate, and if so, upon signing the consent forms, the interviews commenced. Interviews for both inmates and community members typically lasted between 30 minutes to an hour, and were audio recorded with participant consent. Where consent was not provided to audio record interviews, notes were hand written by the researchers while the interview was in progress.

3.1.7 Data Analysis

Interviews were transcribed verbatim from either hand-written notes or audio recordings by two researchers. Data was then organised and coded into themes using NVivo© qualitative data management software (see Figure 6). Each interview script was read in its entirety, with individual quotes coded to appropriate nodes (subthemes), which were then coded to major themes (overarching categories) (see Figures 6 and 7). As only one main coder was responsible for coding the interview data for this PhD project, it was not possible to calculate a statistical value for inter-rater reliability. Therefore, an alternative method, “peer-checking/peer-debriefing” (Guba, 1981; Padgett, 1998) was used to check reliability and consistency in coding. Two experienced researchers (one PhD supervisor and one research officer) were asked to review and code several samples of interview data to ensure inter-rater reliability. To do this, they referred to the established themes and subthemes (codebook) for reference, and once they had completed their coding, the results were compared to the main coder’s results. The assessment indicated at least 80% agreement between the three coders. The coded data was then interpreted and analysed according to the IPA framework, described in Table 3, and depicted in Figure 7.

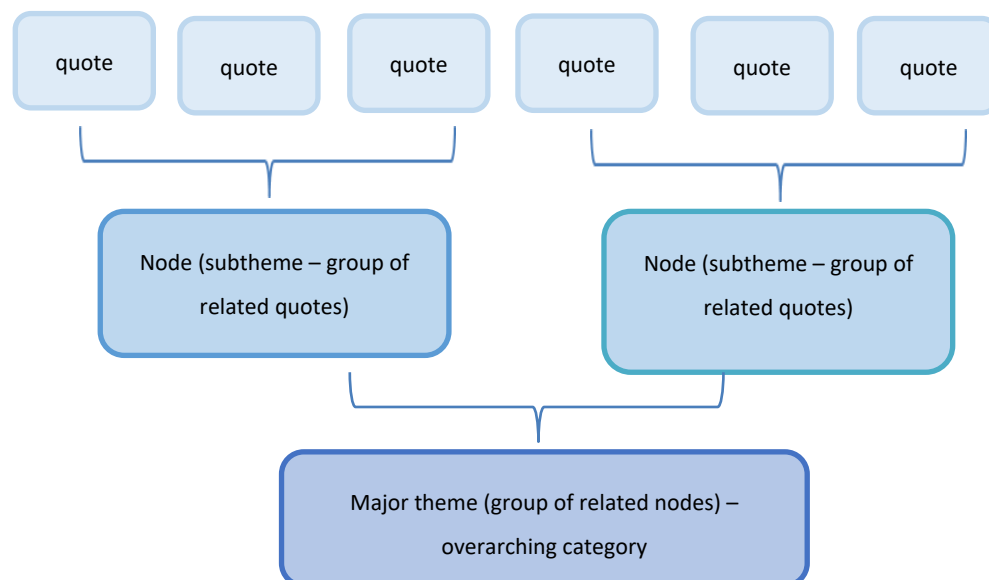


Figure 6. Coding process for interview transcripts using NVivo

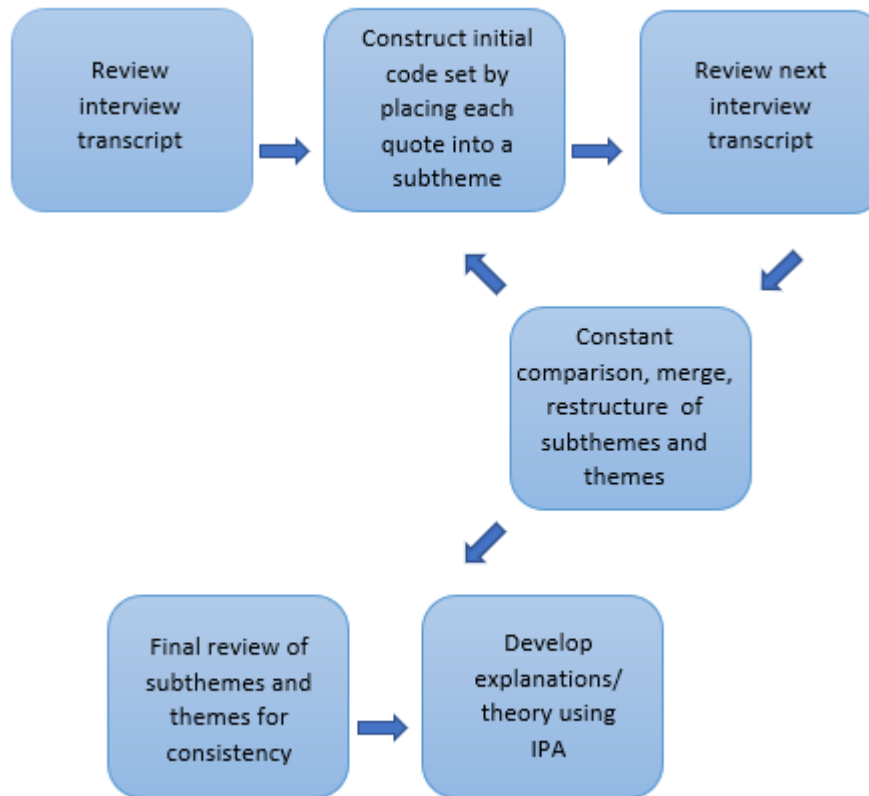


Figure 7. Process for data analysis using IPA

Now that methodology has been discussed for Phase 1 of the study, the following section of this chapter details the methodology for Phase 2, the quantitative phase. This includes the process for surveying male participants from both inside the correctional centre and community members from North Queensland.

3.2 Methodology - Phase 2 Quantitative Study – Surveys

As outlined in Figure 8, the following section focuses on Phase 2, the quantitative survey methodology. Full details of the survey aim, study setting, survey design, refining and pilot testing, participant recruitment, data collection, variables and data analysis are presented.

3.2.1 Survey Aim

Upon completion of the interview phase, including finalisation of data coding and analysis, a new group of participants were invited to respond to a survey. The survey was developed to explore the important issues pertaining to violent behaviour and incarceration, for both Indigenous and non-Indigenous men in the North Queensland region. The survey was distributed to a wider target population, both within the prison and broader community.

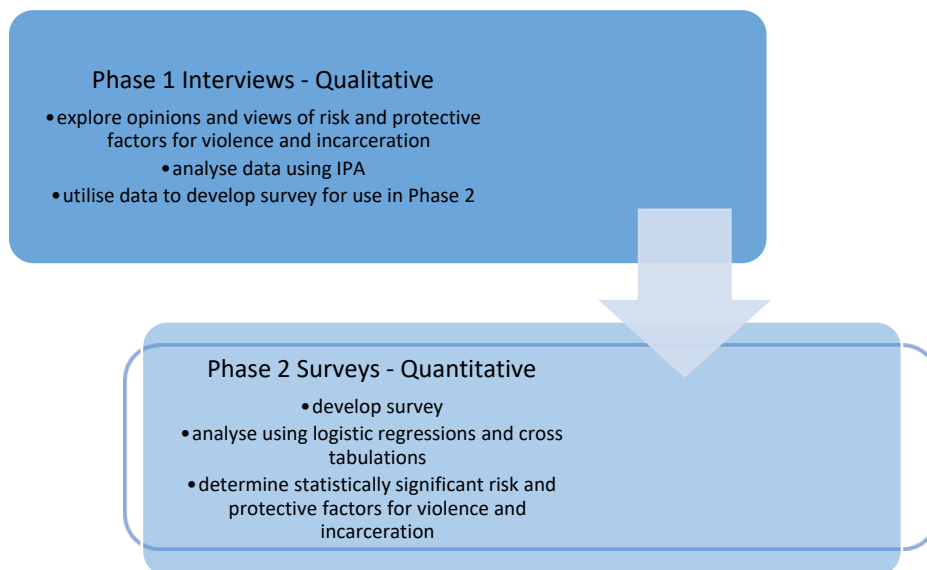


Figure 8. Visual representation of methodology for Phase 2 of research project

3.2.2 Study Setting

Data collection was conducted in two main settings. The first was at Lotus Glen Correctional Centre (LGCC), located at Mareeba, 63 kilometres south west of the regional Queensland city of Cairns. The other consisted of various locations in North Queensland that LGCC inmates indicated that they typically resided in. A breakdown of geographical location for all participants is included at Table 6, Chapter 4. The survey was also completed by several interstate participants due to the nature of the online delivery. These participants were excluded if they did not indicate having any history of growing up in the North Queensland region.

3.2.3 Survey Design

The 50-item survey comprised demographic questions, new items from information received during Phase 1 of the project and known risk and protective factors identified from existing research.

3.2.4 Survey Refining and Pilot Testing

Reliability Testing

Questions from the interviews that had not been taken from a validated scale were checked for test-retest reliability. A convenience sample ($n = 12$) was asked to answer the non-standardised questions to check if they all gave consistent answers. A week later, these participants were retested, to ensure the same answers were given as for the previous week. A Pearson correlation was conducted to demonstrate consistency in answers, with any items that were not above .6 removed from the survey, as these were not considered reliable.

Validity Testing

Once the final draft of the survey was complete, a test for validity was conducted. A panel of five experts including university professors, research officers and an Indigenous research assistant were asked to comment on the survey's *face validity* (does it look as if the questions are measuring what they are supposed to measure?); and the *content validity* (is it asking the right sort of questions? is there anything missing?). Once the panel had reviewed the survey and made suggestions for improvements, any changes were made. The Indigenous research assistant completed a final review to ensure cultural appropriateness and understanding of terms for the Indigenous participants.

Pilot Testing

To pilot test the survey in the community, a small group ($n = 4$) were asked to complete both online and paper versions, to check their understanding of the questions, and to ensure sections flowed logically. Testing also ensured that the online system was working correctly and there were no errors with the delivery of the survey. To test the survey with the inmates, the first session at LGCC was dedicated to allowing a small group ($n = 4$) to complete the paper survey and highlight any areas that they did not understand. Only minor amendments were required, and these were made prior to further participants completing surveys.

3.2.5 Participant Recruitment

LGCC Participants

In alignment with QCS guidelines, the MRA at the centre was delegated to locate and recruit participants who were willing to participate in the study. Eligibility requirements included being aged 18 years or over, be able to speak or understand English, and be incarcerated (either sentenced or on remand) for violent offences. Participants were excluded by the MRA if necessary, to ensure work or prison schedules were not disrupted, if they had mental or physical health issues, or if they had been sanctioned due to behavioural issues. Suitable inmates were approached by the MRA, who described the study to them, and asked them if they would like to participate. If they agreed, a consent form was signed, and researchers were advised via email or phone that suitable participants had been recruited. A date and time were then arranged with the researchers to travel to the centre to distribute the surveys and be on hand to assist any participants who required help to complete the survey.

Community Participants

Recruitment for the community participants was primarily conducted via snowball sampling, including word of mouth and social media networking. Snowball sampling is a non-probability type of sampling where research participants are asked to assist researchers in identifying other potential subjects (Babbie, 2016). Snowball sampling is a useful choice of sampling strategy when the population being studied is hidden or difficult to reach. This includes populations that may be subject to social stigma and marginalisation, such as minority groups, individuals engaged in illicit or illegal activities or drug use, or who have had a difficult upbringing (Babbie, 2016). A link to the online survey (via Survey Monkey®) was emailed to many individuals and groups, including local sporting clubs, community groups, and other potentially interested

parties. The link was also shared on the researcher's social media pages and by others in the North Queensland region who may have known of other individuals who may have been interested in participating.

3.2.6 Data Collection

LGCC Data Collection

Due to security constraints against the use of internet within LGCC, all inmates who volunteered to participate were provided with paper copies of the information sheet (Appendix I), informed consent form (Appendix J), and the survey. Small groups of inmates were invited to a meeting room within the correctional centre, where two researchers were in attendance to distribute surveys and answer any questions participants had. A small percentage of participants required assistance to help them complete the survey, mainly due to limited literacy, however their understanding of the survey items was found to be adequate.

Community Data Collection

For community participants, the survey was completed online via Survey Monkey® unless they specifically requested a paper copy to complete. The information sheet and informed consent form were integrated into the online survey (Appendix K), therefore consent was provided by the participant ticking yes to the question "Do you consent to participate in this survey?" and continuing to complete the survey online. If a paper survey was requested, this was distributed and then returned to the researcher, in sealed envelopes - with the consent form in a separate envelope to ensure confidentiality and anonymity of all participants.

3.2.7 Variables

As this was a descriptive study, the results being explored included any factors that predicted either the perpetration of, or protection from, violent behaviour and/or incarceration for Indigenous and non-Indigenous men from North Queensland. Using the survey items asking participants about their history of violence and incarceration (detailed in Appendix K), the following two questions were formulated:

- "Have you ever committed violence towards another person?" and
- "Have you ever been to jail as an adult?"

These two questions produced the outcome (dependent) variables of violence and incarceration. These variables were dichotomous (yes/no), providing two groups for comparison within each variable - those who had and those who had not perpetrated violence towards another person, and those who had and those who had not been incarcerated as an adult. Where possible, these variables were further broken down into cultural groups - Indigenous and non-Indigenous, to allow for comparison between these groups in relation to risk and protective factors for violence and incarceration. Consistent with other studies investigating violent behaviour (Hemphill et al., 2009), dichotomous measures were deemed appropriate for the current study, as not all of the participants had engaged in high levels of violent behaviour, or had been incarcerated, and the presence versus absence of violent behaviour and incarceration was the focus of the analysis.

Data Reduction

The full survey included 50 items, with various multi-choice questions, leading to a large amount of data (see Appendix K for the full survey). Consequently, this data set was reduced to eleven key variables as agreed upon by the principal researcher and supervisors (BH, AC, and NC). These variables, defined and outlined below, were included in the final data analysis. The process for data reduction is described below in section 3.2.8.

Dependent variables. The primary outcome variable, *violent behaviour* (violence), was operationalised by asking participants about their history of violent behaviour towards others. Those who reported having committed one or more violent acts, such as assault, assault with a weapon, payback (an act of revenge or retaliation in Indigenous customary law) and square up (to settle an argument by organised fighting), were included in the violent category. A binary variable, with violent coded as 1 and non-violent coded as 0, was created. This method of operationalising violence as a dichotomous dependent variable is consistent with other studies conducted in Australia to assess violent behaviour (Hemphill et al., 2009; Scholes-Balog et al., 2013). The dependent variable, *incarceration*, was operationalised by recording participants' adult incarceration history. Those who were currently or had previously been incarcerated at least once as an adult for a violent offence, were included in the incarcerated category. All others were included in the non-incarcerated category. Again, a binary variable was created, with incarcerated coded as 1 and non-incarcerated coded as 0.

Independent variables. Eleven key independent variables were constructed from the survey data, after taking into consideration risk and protective factors identified by reviewing existing Australian and international research, and the interview data from Phase 1 of the

research project. The variables and the definitions used are described in Table 4.

Categorical independent variables.

Culture was defined as being either Indigenous (coded as 1), or non-Indigenous Australian (coded as 0). Indigenous included Aboriginal, Torres Strait Islander, or both.

Relationship included being in a relationship - married, de facto (coded as 1), or not in a relationship - widowed, single, divorced, separated (coded as 0).

Education included three categories: Completed Year 9 or under - including did not go to school, went to primary school only, completed Year 8 or Year 9 (coded as 0); completed Year 10 to 12 (coded as 1); and tertiary or further education, including university, trade, college, TAFE or apprenticeship (coded as 2).

Employment comprised being employed - fulltime or casual employment (coded as 1); or not employed - stay at home, not looking for work, volunteer, unemployed, or student (coded as 0). Inmates indicated their most recent employment status prior to their incarceration.

Religion included either having religious beliefs (coded as 1), or not having religious beliefs (coded as 0).

Cannabis use was defined as being a frequent cannabis user - daily, weekly (coded as 1), or infrequent cannabis user - monthly, yearly, less than yearly, never (coded as 0).

Alcohol use was defined as being a frequent user - daily, weekly (coded as 1), or infrequent user of alcohol - monthly, yearly, less than yearly, never (coded as 0).

Interval independent variables.

Positive childhood and family life events were scored by combining the average 'yes' scores on answers to 21 positive statements included in the survey (scored from 0 to 21).

Positive childhood emotions were scored by combining the average 'yes' scores on answers for the 12 positive statements included in the survey (scored from 0 to 12).

Negative childhood and family life events were scored by combining the average 'yes' score on answers to 15 negative statements on the survey (scored from 0 to 15).

Negative childhood emotions were scored by combining the average 'yes' scores on answers to 13 negative statements on the survey (scored from 0 to 13). For more information on interval variables see Table 4, and Appendix K.

3.2.8 Statistical Model Development and Data Analysis

The study used a mixed methods approach, drawing from qualitative interviews (Phase 1) and a survey (Phase 2). The data were collected using a sequential explanatory design (Ivankova, Creswell & Stick, 2006), with the qualitative interview data collected and analysed first, and the survey data collected and analysed second. Data were integrated at the level of interpretation whereby qualitative and survey data supplemented one another, providing a more nuanced, complex understanding of the research findings.

Data derived from the interviews, Phase 1, was coded and analysed using NVivo software, with the most frequently mentioned themes used to inform the survey development for Phase 2. Along with this qualitative data, learnings from existing literature (as revealed in the literature review, Chapter 1) and other known risk and protective factors from international research were integrated to develop the survey questions. This method ensured the questions accurately reflected both current research and more relevant issues pertaining to the target population, as identified by the interview participants, who had experience and knowledge regarding the issues of violent and incarceration in the North and Far North Queensland regions.

As a large amount of data was gathered during the project, it was necessary to condense this data into a more manageable and meaningful data set for the target population. As detailed above in section 3.2.7, eleven key variables were used for the development of the statistical models. Where necessary due to insufficient numbers of participants in each category, these variables were condensed to become either two- or three-response categories, as described in section 3.2.7. The variables included in the final data set were those that came through the strongest in both the survey and the qualitative interviews, as they were deemed to be more relevant to the target sample of participants (See Table 4).

Using IBM SPSS[®] data analysis software, univariate binary logistic regressions were used to estimate odds ratios (ORs) for violent compared with non-violent and incarcerated compared with non-incarcerated groups of participants for each of the independent variables. During this analysis, factors were analysed one by one, and those that were significantly associated with one or both of the dependent variables, *violent behaviour* or *incarceration*, were then included in the multivariate models (as shown in Tables 13, 14, 17 and 18).

Using these variables identified in univariate analysis, multivariate logistic regression was then performed to examine the variables with the strongest associations with violence and/or incarceration. The multivariate models for both risk and protective factors were analysed as separate groups (risk factors violent behaviour, protective factors violent behaviour; risk factors

incarceration, protective factors incarceration). The reason for the separate analysis was that information from literature review and interviews allowed us to infer which factors were likely to be risk factors (alcohol use, cannabis use, negative childhood events, negative childhood emotions); and those that were thought to be protective (employment, relationship, education, positive childhood events, positive childhood emotions). Two variables religious beliefs and culture were included in both risk and protective models, due to varying results in the literature. Religious beliefs have been identified as both risk and protective factors in various research; while culture was found to be a risk in some studies and had no effect in others.

Due to the relatively small number of participants within each cultural group when separated out, it was not possible to explore differences in important factors between Indigenous and non-Indigenous participants using regression analysis. To ensure that we were able to answer this main aim of the study, Cross tabulations were conducted using the categorical variables used in the regression models (alcohol use, cannabis use, employment, education, relationship status, religion, culture) (see Tables 15 and 19). Cross tabulations were performed for Indigenous participants, then for the non-Indigenous participants. Results were compared to determine if any differences existed in which of these variables were statistically significant for each cultural group.

All results from these analyses are included in full in Chapters 5 and 6, Quantitative Research. The discussion of the methodology for both Phase 1 (qualitative) and Phase 2 (quantitative) of the research project is now complete. The next section to be presented is Chapter 4, the results of the qualitative study. This chapter also includes a published paper relating to a common trajectory, from trauma to incarceration that was identified during the interview process for eleven of the inmate participants.

Table 4. Dependent and Independent Variables (Risk and Protective Factors) for Violent Behaviour and Incarceration for Australian Men from North Queensland

	Risk Factors		Protective Factors
Alcohol use	Frequent or infrequent user	Employment	Being employed (full- or part-time) or not. Inmates indicated their most recent employment status prior to incarceration
Cannabis use	Frequent or infrequent user	Relationship	Being in a relationship (married, defacto) or not (widowed, single, divorced, separated)
Negative Childhood events	Parents abused alcohol or drugs Others in family had been to jail There was domestic violence Parents abused me Took a lot of risks Family/friends suicide Racially discriminated against Verbally abused Neglected by parents/carers Witnessed/involved in trauma Bullied at school Physically abused Sexually abused No friends Lived in foster care	Education	Completed Year 9 or under (did not go to school, primary school only, Year 8 or Year 9); Year 10 to 12; or Technical and further education (TAFE), university, trade, college, or apprenticeship
Negative Childhood emotions	Helplessness Jealousy Judged by others Paranoid Rebellious against authority Unloved No sense of belonging Worthlessness Unwanted Lacked self-belief Shame Stubbornness Anger	Positive childhood events	Extended family helped raise Mother and father lived together Had a routine, rules Had good role models (parents or others) Parents had skills to bring me up Father was around Parents were supportive Parents expected a lot from me Advice from Elders or other role models English language skills Food and other necessities Family activities Community activities Cultural activities (fishing, hunting, art, music, dance) Religious activities Police and Citizens Youth Clubs (PCYC) Remote stations, farms Alcohol free activities Sports Advice & mentoring Drug and alcohol education
Religion*	Having religious beliefs (belief in God) or not		
Culture*	Indigenous (Aboriginal, Torres Strait Islander or both), or non-Indigenous Australian *Religion and Culture are not determined as risk or protective factors, rather exploratory variables included in the analysis	Positive Childhood emotions	Resilience High self-esteem High self-confidence Acceptance from others A sense of self identity Self-belief Self-reflection skills Tolerance for others Respect from others Respect for others Knowledge of my culture Dreams, hope, opportunities for the future

Chapter Four: Qualitative Study of the Risk and Protective Factors for Violent Behaviour and Incarceration for Men in North Queensland

Part A. Results of Qualitative Study

4.0 Methodology

Once thematic saturation was reached, interviews were coded using NVivo software, with themes and subthemes categorised according to the Interpretative Phenomenological Analysis (IPA) framework. For a detailed description of the methodology, refer to Chapter 3, section 3.2. The IPA data analysis process is also detailed in Chapter 3 (Table 3, Figures 6 and 7).

4.1 Results

4.1.1 Description of Sample

As shown in Table 5, 39 participants completed in-depth interviews, taking approximately one hour each to complete. Of the 39 participants, 67% ($n = 26$) identified as Indigenous Australian, and the majority ($n = 35$, 90%) of participants were male. Approximately half of the participants ($n=19$) were currently incarcerated in Lotus Glen Correctional Centre (LGCC), with the remaining participants ($n=20$) residing in the North Queensland region.

LGCC Participants

A total of 19 male current prison inmates, who typically reside in North Queensland were recruited for the study. Of these, 68% ($n = 13$) identified as Indigenous Australian. These participant's ages ranged from 18 to 44 years. At the time of the interviews, inmates were either on remand or under sentence for the following types of violent offences: assault, grievous bodily harm, attempted murder, murder, intent to rape, rape, domestic violence and domestic violence breaches, armed robbery, robbery on the run, break and enter, and drug offences.

Community Participants

To provide a contextual comparison between incarcerated and non- incarcerated groups, a further 16 males and 4 females who were not incarcerated, and who resided in North Queensland were interviewed. As this was an exploratory study, the community group of participants was not designed to be an exact comparison per se to the incarcerated group, more so they were included to provide a more nuanced context to each person/group's response. This comparison was in terms of qualitative elements that could shed light on the interpretation of qualitative data and to inform the quantitative surveys, providing more context to the participant's responses depending on their incarceration or community location. The intention was to tease out the differences in important themes for the community compared with the incarcerated participants.

Of these 20 community participants, 13 identified as Indigenous Australian. The ages of the community-based participants ranged from 18 years to over 65 years. Community participants included magistrates, psychologists, Indigenous rangers, school principals, teacher aides, court workers, and local community members.

Table 5. Culture, Age Group and Gender of Interview Participants

Category	Inmates <i>n</i> = 19, %	Community members <i>n</i> = 20, %
Culture:		
<i>Indigenous</i>	13 (68%)	13 (70%)
<i>Non-Indigenous</i>	6 (32%)	7 (30%)
Age (years):		
18-24	3 (16%)	1 (7%)
25-34	8 (42%)	5 (33%)
35-44	8 (42%)	4 (27%)
45-54	-	3 (20%)
55-64	-	1 (7%)
65+	-	1 (7%)
Gender:		
Male	19 (100%)	16 (80%)
Female	-	4 (20%)

Geographical Location and Usual Place of Residence

A description of the geographical location and usual residence for each participant is provided in Table 6 (also see Figure 9). Community members lived between 63 and 309 kilometres from LGCC; whereas the inmates resided in a wider geographical range, between 0 and 1846 kilometres from LGCC. The reason for the variation in location is that some of the inmates had been transferred from other areas of Queensland or interstate (Northern Territory), however had spent significant amounts of time residing in the study region during childhood and adulthood and considered North Queensland their home. Some inmates specified their place of residence as the correctional centre itself, therefore the distance of 0 kilometres is included. The remoteness area (RA) of each location is also included in Table 6 to illustrate the isolation and lack of access to goods, services and opportunities for many participants during their childhoods.

Of the 39 participants interviewed, 23% ($n = 9$) were from very remote regions (RA 5), 13% ($n = 5$) from remote regions (RA 4), and 31% ($n = 12$) from outer regional areas (RA 3). While 20% ($n = 8$) of participants currently resided in major city areas (RA 1) or other areas of Queensland, they were included in the analysis as they had spent some or all of their childhood in North Queensland. No participants were from RA 2 locations, while 13% ($n = 5$) did not disclose where they usually lived. Most inmates were from RA 5, the most remote ($n = 8$), while most community participants lived in RA 3 locations. For further information regarding the RA index, please refer to Figure 4, in Chapter 3.

Table 6. Location and Remoteness Area of Interview Participants' Usual Residence

Place of usual residence	Inmate participants		Community participants		Total participants		Distance from LGCC (kms*)	Remoteness Area (RA) [‡]
	n	%	n	%	n	%		
<i>Mareeba</i>	-	-	3	20.0	3	8.8	0	3
<i>Atherton</i>	1	5.3	-	-	1	2.9	34	3
<i>Cairns</i>	3	15.6	2	13.4	5	14.8	63	3
<i>Port Douglas /Mossman</i>	1	5.3	-	-	1	2.9	73	3
<i>Yarrabah</i>	-	-	1	6.6	1	2.9	112	3
<i>Tully</i>	1	5.3	-	-	1	2.9	183	4
<i>Hopevale</i>	-	-	4	26.7	4	11.9	309	4
<i>Townsville/ Palm Island</i>	1	5.3	-	-	1	2.9	389	3
<i>Coen</i>	1	5.3	-	-	1	2.9	492	5
<i>Lockhart River</i>	1	5.3	-	-	1	2.9	751	5
<i>Aurukun</i>	1	5.3	-	-	1	2.9	765	5
<i>Torres Strait Islands</i>	4	21.0	1	6.6	5	14.8	≈794	5
<i>Bamaga/ New Mapoon</i>	1	5.3	-	-	1	2.9	899	5
<i>Brisbane/ other</i>	4	21.0	4	26.7	8	23.6	1743	1

Note: † RA Index from *Australian Standard Geographical Classification - Remoteness Area* (Australian Government, 2006). *kms = kilometres.



Figure 9. Map of Australia and Queensland showing location of study participants' usual residence

4.1.2 Major Themes Identified

The main themes and subthemes arising from analysis of the qualitative interview data are explained in more detail in Table 7. These include health and mental health, culture, extracurricular activities, role models and mentors, violence – both witnessing and a history of being violent, personality and personal attributes, coping skills, education and school, social and peer group, family and childhood factors, substance use and abuse, socio-economic factors, previous criminal behaviour, and future hopes and dreams.

Table 7. Main Themes and Subthemes Arising from Interpretative Phenomenological Analysis of Interview Data

Theme	Sub-themes
<i>Health and mental health</i>	Mental health; sexual abuse; trauma as a child, Foetal Alcohol syndrome disorder, health and hygiene, teenage pregnancy.
<i>Culture</i>	Traditional beliefs and practices; Murri law; historical issues; cultural differences; Indigenous versus non-Indigenous life; sharing obligations; black magic; loss/change of culture.
<i>Extracurricular activities</i>	Fishing and hunting; sport; family activities
<i>Role models and mentors</i>	Male leaders; community support and acceptance; good role models
<i>Violence – witnessing and history</i>	Payback/square up; alcohol-related violence; witnessing violence; domestic and family violence
<i>Personal attributes</i>	Grow up and change own behaviour; self-belief; self-identity; remorse; life skills; self-reflection; values/morals; shame; self-acceptance; anger; free will/own choice; jealousy; respect for/from others
<i>Coping skills</i>	Dealing with problems; coping mechanisms; counselling; support; guidance/advice; communication skills; running away from problems
<i>Education and school</i>	School experience, environment and attendance; TAFE and university
<i>Peer group and social</i>	Leaving home community; peer group influence
<i>Family and childhood</i>	Parents as good role models; childhood behaviour; generational issues; parents have high expectations; child safety; good relationships; parenting education and training; discipline; normalised behaviour; father absent from home; family member in jail; family structure
<i>Substance use and abuse</i>	Alcohol use; substance use in the family home; binge drinking; early initiation to alcohol/drugs; witnessing substance abuse; education about drugs/alcohol; social pressure to drink
<i>Socio-economic circumstances</i>	Welfare dependency; disadvantage; economic environment; lack of opportunity; overcrowded housing; employment; negative social environment
<i>Future hopes and dreams</i>	Dreams and future aspirations; lack of future aspirations
<i>Previous criminal behaviour</i>	Opportunities to commit crime; youth and childhood crime

Most Common Themes According to Culture and Incarceration Status

As shown in Figures x and x, and Tables 8 and 9, and 10 and 11 the ten most common themes are listed in order of frequency both overall, and for each of the participant groups: Indigenous, non-Indigenous and; and incarcerated, not incarcerated. Inclusion for participants in these groups were not all mutually exclusive, for example, a participant in the indigenous group may also have been in the incarcerated or the non-incarcerated group; whilst an inmate may have been also in the indigenous or non-Indigenous group, as depicted in Figure 10.

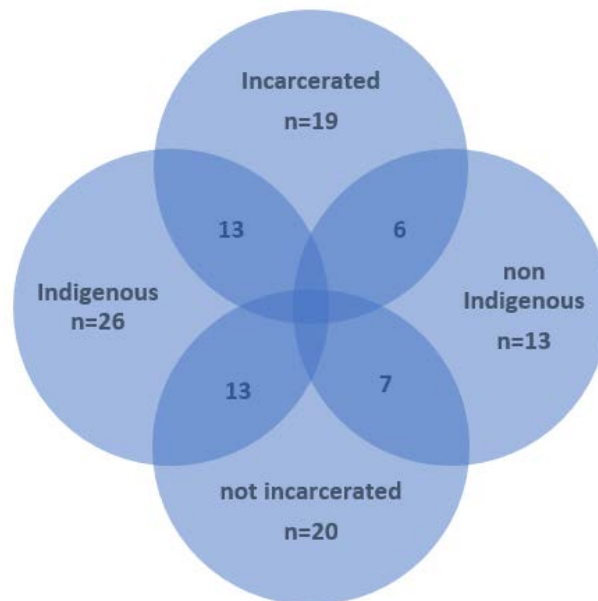


Figure 10. Venn diagram depicting distribution of participants across Indigenous, non-Indigenous, incarcerated and not incarcerated groups

These themes have been categorised into either risk or protective factor themes, depending on the context given when the participants mentioned these topics. In general, recording of risk factors represent participants mentioning negative or adverse aspects of the theme, while protective factors represented positive aspects of the themes. The figures in these tables represent the total number of times each theme was mentioned by the participants in the particular group, covering a wide range of sub-themes, as described in Table 7.

Top Most Common Themes Mentioned by All Participants Combined (n=39)

Risk factors. As depicted in Figure 11, from a total of 2064 mentions, the most common risk factor themes were, from most to least, family and childhood factors (17%, 358 mentions), personal attributes (268, 13%), socio-economic circumstances 256, 12%), violence – witnessing and history (252, 12%), peer group and social factors and substance use and abuse (11% each), health and mental health, education and school, and coping skills (11% each) and culture (110,5%).

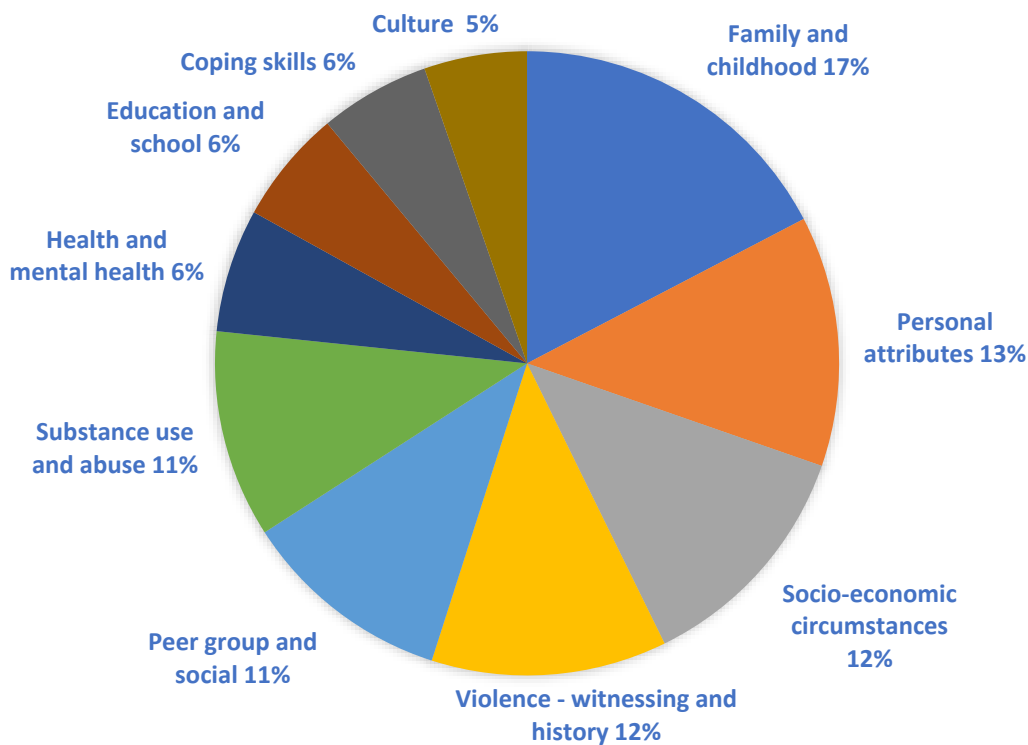


Figure 11. Top ten most frequently mentioned risk factors for violent behaviour and incarceration – all participants

Protective factors. Of the 1320 protective factor mentions, as shown in Figure 12, the most frequent was role models and mentors, with 202 mentions (15%). The next most frequent were personal attributes and family and childhood factors (14% each), coping skills (12%), socio-economic circumstances (11%), and extracurricular activities (10%). The final four were education and school, culture, peer group and social factors, and future hopes and dreams, with 9%, 6%, 5%, and 4% of mentions respectively.

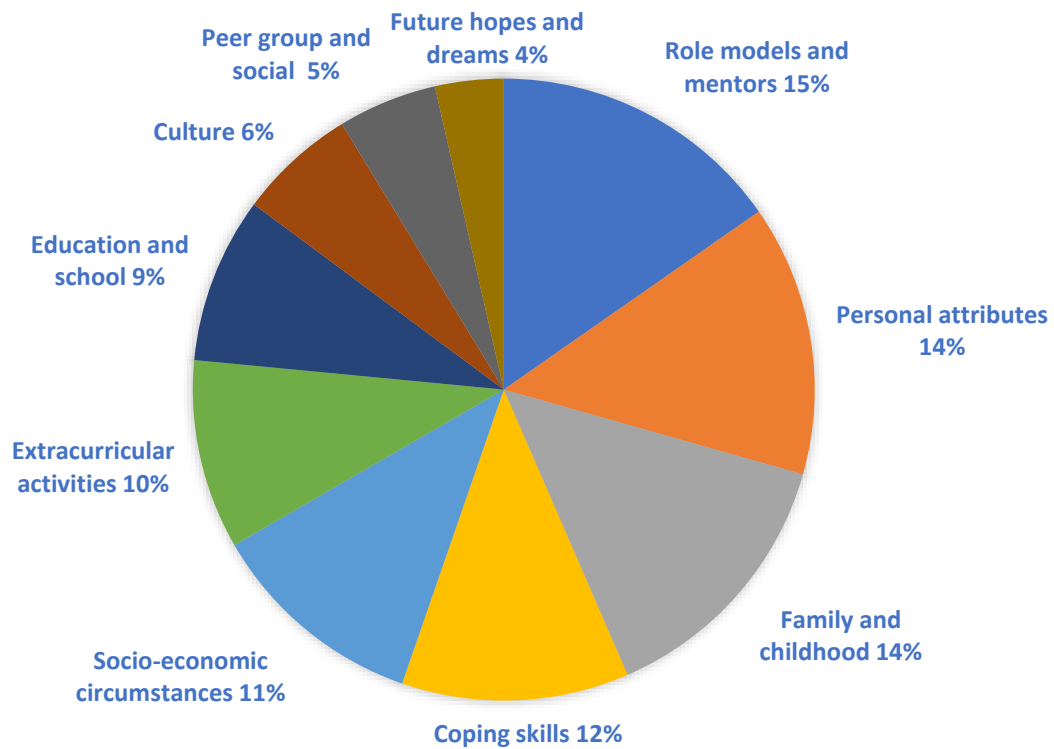


Figure 12. Top ten most frequently mentioned protective factors for violent behaviour and incarceration – all participants

Risk Factor Themes – Indigenous Participants

Table 8 outlines the most commonly mentioned risk themes by participants according to cultural group. For Indigenous Australian participants, negative family and childhood factors were mentioned as the most frequent contributor to violent behaviour and incarceration, with 131 (21%) mentions. The types of comments surrounding family and childhood factors included a lack of parenting and fathers being absent from home, as described by the following participant:

See at the moment we've got deadbeat dads. I call them deadbeat dads. They're not, the role is more um, left with the mum, and the grandparents...you probably only see about 5 percent of parents interacting with their children playing. The kids are left to their own devices, you know. And they [sic] in survival mode.[Indigenous, non-incarcerated, remote community, age 55-64]

Personal attributes were the next most frequent theme (82 mentions, 14%), including the issues surrounding of anger and jealousy. The following quote relates to the negative feelings that contributed to this participant's violent behaviour towards his partner:

Um, when I was turning 17, I was like, keeping with this girl from [remote community], like we was [sic] going out, and after that probably for a couple of months, 6 or 7 or 8 months, like the love was getting strong and start getting violence and getting jealous.
[Indigenous, incarcerated, very remote community, age 25-34]

Negative peer group and social factors, witnessing and a history of violent behaviour, and adverse socio-economic circumstances were also commonly mentioned. At sixth place was substance use and abuse (50, 9%). The next comment portrays the issue of drinking in Indigenous communities, and how the culture of drinking is passed to younger children:

Everyone drinks. But it definitely is an issue for Indigenous communities, and maybe because it is like [community] is so remote it does stand out. But there's definitely a culture of it's cool to drink, and that's what they want to do. And that gets passed on to little kids, pretty much. I guess if you are a kid growing up and you see your parents doing that it becomes normality I guess, the violence too. [Indigenous, not incarcerated, remote community, age 25-34]

Risk Factor Themes - Non-Indigenous Participants

Also shown in Table 8, non-Indigenous participants most often referred to socio-economic circumstances and substance use and abuse as increasing the risk of violent behaviour and incarceration for young men in North / Far North Queensland, with 65 and 61 mentions each.

This comment from a non-Indigenous participant reflected the views regarding the socio-economic circumstances that may contribute to violent behaviour and incarceration:

You know, the reality is, as a general statistical state of affairs, those at the lowest socio-economic end of the spectrum are more in [at risk] because of the disadvantage of their upbringings and the bad influence of association they may have, compared to others in a better socio-economic situation, and are more likely to offend. [Non-Indigenous, not incarcerated, outer regional city, age 45-65]

The next most common themes were violence – witnessing and history (12%) and health and mental health issues (12%), which included the subthemes such as psychological effects of sexual abuse, trauma, and mental health disorders. Family and childhood factors, personal attributes, coping skills were the next most common. Peer group and social factors received 8% of mentions, with comments such as the following reflect the views of some non-Indigenous participants regarding young men and boys having a negative peer group influence and associated risks:

Without a doubt there's a very very strong connection between that peer social groupings, disadvantaged people getting together and making bad choices, to, I think you could get exactly that same group of kids as an experiment and put them with a different group of peers and I'm very sure they'd be successful. [Non-Indigenous, not incarcerated, outer regional city, age 35-44]

Culture and education and school factors were ninth and tenth most common, with 5% of mentions each by the non-Indigenous participants.

Table 8. Top 10 Most Frequently Mentioned Risk Factor Themes by Culture of Participant

Position	Indigenous participants (n=26)	Number of mentions (total 574)	Non-Indigenous participants (n=13)	Number of mentions (total 486)
1	Family and childhood	121 (21%)	Socio-economic circumstances	65 (13%)
2	Personal attributes	82 (14%)	Substance use and abuse	61 (13%)
3	Peer group and social	72 (13%)	Violence – witnessing and history	60 (12%)
4	Violence – witnessing and history	66 (11%)	Health and mental health	59 (12%)
5	Socio-economic circumstances	63 (11%)	Family and childhood	58 (12%)
6	Substance use and abuse	50 (9%)	Personal attributes	52 (11%)
7	Education and school	39 (7%)	Coping skills	43 (9%)
8	Culture	36 (6%)	Peer group and social	41 (8%)
9	Coping skills	23 (4%)	Culture	25 (5%)
10	Criminal behaviour	22 (4%)	Education and school	22 (5%)

Protective Factor Themes – Indigenous Participants

As shown in Table 9, the most common protective factor themes for Indigenous participants were thought to be having good role models and mentors (59, 15%) and positive family and childhood experiences (52, 14%). The importance of good family and childhood experiences are described in the following two quotes from Indigenous interview participants:

My grandparents were there, and we always had uncles and aunties. I think that is, that's a part of Indigenous families, we're all sitting around with the family as well as kids, so we'd go live with the uncles or aunties sometimes. [Indigenous, not incarcerated, age 25-34, inner regional town]

Yeah, it's basically keeping in with that status of looking after our family and looking after our mob. My grandfather did it, my father and then I spose [sic] with me and my brothers so... [Indigenous, not incarcerated, age 25-34, outer regional city]

Coping skills and personal attributes accounted for 13% of mentions each, while extracurricular activities and socio-economic circumstances were the fifth and sixth most commonly mentioned themes. While culture was not as commonly mentioned as other factors mentioned, the

importance of Indigenous people having connections and knowledge of their culture was portrayed in quotes such as the following:

We got a lot of kids coming down on this program as well, all the Wik [Indigenous Australians from Cape York] kids and that, especially from [very remote community] and [very remote community], and they are very cultural... they're great. But that's another thing, that culture scares the shit out of them and they get, won't put a foot wrong because they're terrified of what will happen. [Indigenous, not incarcerated, age 25-34, inner regional town]

Protective Factor Themes - Non-Indigenous Participants

The most common protective theme mentioned for non-Indigenous participants was the importance of positive personal attributes (38, 17%) and having good role models and mentors while growing up (38, 17%) (see Table 9). The following participant provided an insight into the importance of the influence that positive role models and mentors could make:

If someone could have took me under their wing, a bit. Maybe got me involved in some sort of work or something like that, you know. Something that I had an interest in, some one that could have supported me. [Non-Indigenous, incarcerated, age 35-44, outer regional city]

Socio-economic circumstances were the third most frequent protective theme mentioned by non-Indigenous participants, with 14% of the mentions. The importance of socio-economic factors such as (rewarding) employment and being able to function as a normal member of society in order to stay out of prison is described in this extract:

So when you're looking at the confines of existing generation, how to make them change, certainly it seems the prospect of recidivism is reduced where an offender has re-joined society and is in paid work, rewarding work, that is a major major factor statistically I'm sure, I haven't looked, but if they remain disjointed from the capacity to earn a normal living in society, the odds of things going astray again are higher. [Non-Indigenous, not incarcerated, age 45-54, outer regional city]

The next four themes, family and childhood factors; coping skills; extracurricular activities; and education and school were quite similar in importance according to the non-Indigenous participants. The following quote describes the importance of school attendance in keeping young men out of jail:

From my perspective so kids that tend to for example come to school every day there's that expectation that they are going to be doing that tend to be more successful and less likely to go into activities that will get them incarcerated. [Non-Indigenous, not incarcerated, age 35-44, outer regional city]

Finally, cultural factors and future hopes and dreams make the ninth and tenth most commonly mentioned themes, albeit with only 5% and 4% of mentions respectively.

Table 9. Top 10 Most Frequently Mentioned Protective Factor Themes by Culture of Participant

Position	Indigenous participants (n=26)	Number of mentions (total 447)	Non-Indigenous participants (n=13)	Number of mentions (total 222)
1	Family and childhood	68 (15%)	Role models and mentors	38 (17%)
2	Role models and mentors	63 (14%)	Personal attributes	38 (17%)
3	Coping skills	56 (13%)	Socio-economic circumstances	32 (14%)
4	Personal attributes	55 (12%)	Family and childhood	25 (11%)
5	Extracurricular activities	45 (10%)	Coping skills	22 (10%)
6	Socio-economic circumstances	43 (10%)	Extracurricular activities	20 (10%)
7	Education and school	39 (9%)	Education and school	18 (8%)
8	Culture	34 (8%)	Culture	11 (5%)
9	Peer group and social	26 (6%)	Future hopes and dreams	10 (5%)
10	Future hopes and dreams	18 (4%)	Peer group and social	8 (4%)

Risk Factor Themes –Incarcerated Participants

As depicted in Table 10, the most commonly mentioned risk factor theme for incarcerated participants, personal_attributes (80, 17%), while peer group and social factors were the second most common type of risk factor mentioned (64, 14%). The third theme, family and childhood factors attracted 13% of mentions. The next quote describes one of the participant's thoughts on the issue of having early intervention so young people grow up in functioning families, rather than with their incarcerated 'family' group:

Half their family's here, especially the community people, it's like a big family reunion for them, you know. So it's no deterrent for em [sic] to come to jail and that's why I think it is important with early intervention to get to a lot of young before they start going down that path. [Non-Indigenous, incarcerated, age 35-44, outer regional city]

Coping skills and substance use and abuse were the fourth and fifth most common themes with 52 and 50 mentions respectively. Health and mental health factors were mentioned 43 times, including the following quote describing the impact of trauma on both the young person and the family's mental health. This participant attributed his anger issues [due to his brother's death when they were teenagers] to becoming violent and incarcerated:

Yeah, just sort of seemed to carry a lot of anger around, when I should like, got help, to get me through it [brother's death]. Cos my, not my family but my dad was always busy working, and mum was really, like she still is, is really messed up because of it. Still. And yeah, it was really hard. [Non-Indigenous, incarcerated, age 35-44, outer regional city]

The next category was education and school factors, for example negative school experiences, low or no school attendance, and leaving school before Year 10, with 9% of mentions. Following this was witnessing, or having a history of violent behaviour, with 37 mentions. One of the participants described the the 'normalisation' of violence that he experienced, due to witnessing family and domestic violence as a child / young person is described in this next quote:

Yeah, he'd come home drunk and beat me mum up and that, you know...I dunno [sic] if I thought it was normal, but it was just a normal part of what happened in the household, you know. Yeah, just. It's hard to sort of remember where your mind's at right back then. Used to happen sort of regularly, you know. And um, often, when he beat my mum up was worse than him beating me up....[Non-Indigenous, incarcerated, age 35-44, outer regional city]

Risk Factor Themes –Non-Incarcerated Participants

Family and childhood factors (20%) and socio-economic circumstances (19%) were the top two most commonly mentioned types of risk factors for violent behaviour and incarceration, according to the participants who were not, or had never been, incarcerated (see Table 10). The following interview extract explains the way in which socio-economic factors are very difficult to avoid for many people, especially those living in remote communities:

I mean most of the offenders that we see are long-term unemployed and very few of them would have been able to hold down a job, especially in the communities because there aren't the work opportunities, so it's not entirely their fault. But it's pretty rare that you have somebody that's in full time employment who is before me for violent offending.
[non-Indigenous, not incarcerated, age 45-54, outer regional city]

The third theme was violence – witnessing and history, with 89 (15%) mentions. This participant reflected on the cycle of violence that many young men in North and Far North Queensland grow up with, and the normalisation of this type of behaviour:

It all comes down to your childhood. I mean my childhood I never encountered a lot of violence I never seen my father hit my mother or vice versa, some family members outside my main family, yes I've seen some violence, but I think a lot of people that end up in jail it's a revolving door, they grow up seeing their father hit their mother, and a lot of people think it's their right, not right sorry, I should say they think that's normal. That if you're wife or girlfriend or missus backchats you, you can slap her across the face, or you know if something you don't like you have the right to assault, or, cos you're the man, you know.
[Indigenous, not incarcerated, age 24-34, outer regional community]

Substance use and abuse was also commonly revealed as a risk, especially for young children, when it came to future violent behaviour and incarceration, as this quote portrays:

Yeess... Yep and I've also seen 10-year-old kids that have been sniffing petrol, because they're not getting their hands on the alcohol they're getting their hands on what they can. And it's pretty sad, but violent behaviour, and like we go there and my uncle, who's an alcoholic, the first thing he tells the kids is 'there's no rules here! [Indigenous, not incarcerated, age 25-34, very remote community]

Personal attributes, culture, peer group and social (49, 8%) all received a fairly equal amount of mentions (54, 49, 49 mentions); as did health and mental health (30, 5%), education and school factors (19, 3%), and past criminal behaviour (17, 3%).

Table 10. Top 10 Most Frequently Mentioned Risk Factor Themes by Incarceration Group

Position	Incarcerated participants (n=19)	Number of mentions (total 468)	Non-Incarcerated participants (n=20)	Number of mentions (total 599)
1	Personal attributes	80 (17%)	Family and childhood	118 (20%)
2	Peer group and social	64 (14%)	Socio-economic circumstances	113 (19%)
3	Family and childhood	61 (13%)	Violence – witnessing and history	89 (15%)
4	Coping skills	52 (11%)	Substance use and abuse	61 (10%)
5	Substance use and abuse	50 (11%)	Personal attributes	54 (9%)
6	Health and mental health	43 (9%)	Culture	49 (8%)
7	Education and school	42 (9%)	Peer group and social	49 (8%)
8	Violence – witnessing and history	37 (8%)	Health and mental health	30 (5%)
9	Criminal behaviour	24 (5%)	Criminal behaviour	19 (3%)
10	Socio-economic circumstances	15 (3%)	Education and school	17 (3%)

Protective Factor Themes - Incarcerated Participants

The following Table (11), highlights the top protective factors for violent behaviour and incarceration, according to participant's incarceration status. The following two quotes capture the importance of having adequate coping skills to avoid the cycle of violent behaviour and incarceration. This theme was deemed the most important type of protective influence by incarcerated participants.

And that's um, yeah that why it becomes important like when you are getting out and progressing, to have a good support network people that'll actually believe in ya [sic] and help ya [sic] make that transition. [Non-Indigenous, incarcerated, age 35-54, outer regional city]

Counselling. Um, I don't know how much that's gonna [sic] help, but I'd like to go and see a counsellor, you know. Cos sometimes pressures do build up and I reckon letting them out through talking to a professional would seriously do something to me, I reckon. [Indigenous, incarcerated, age 18-24, remote community]

Role models and mentors, and personal attributes received an almost equal number of mentions (17% and 16%), while education and school factors were the fourth most mentioned type of

protective theme for the men who were incarcerated (23, 9%). The themes including extracurricular activities, socioeconomic circumstances, family and childhood factors, and future hopes and dreams received similar numbers of mentions, at 7% each. Peer group and social factors came in at ninth most common (17, 6%). Being able to overcome negative peer influences was an important step for the following participant, who attempted to devote his time to looking after his baby daughter instead, and avoid the negative consequences of his previous substance use and violent behaviour:

I took her [baby daughter] and I gave up drinking, I gave up smoking. I gave up partying with my friends. My (fake) friends “come out aye, you come party”. Number one, I said “nah, I gotta [sic] do everything for her.” [Indigenous, incarcerated, age 35-44, remote community]

The importance of education surrounding safe use of alcohol and drugs (substance use education) was the tenth most important theme identified by incarcerated participants, with 5% of the mentions.

Protective Factor Themes – Non-Incarcerated Participants

Non-incarcerated participants mentioned family and childhood protective factors 74 times, making it the most common type of protective theme for this group. Having supportive parents, who were first and foremost concerned with their children’s upbringing, was portrayed in the following comment:

Yeah, certainly it's about having parents whose interest is about for us to have the basics, clean house, motor car to drive around in, go to school every day. it's interesting, mum and dad have limited schooling themselves, dad went to junior high, but he only went so far, mum only went to year 6, and that's as far as mum could go. You know they've been pretty supportive mainly, they still, when we went to High school they still didn't know what we were doing but... lol... Either did we, we just went to school and did what you did. [Indigenous, not incarcerated, age 45-54, outer regional city]

The second most commonly mentioned theme was role models and mentors, followed by socioeconomic circumstances, personal attributes, and extracurricular activities. The importance of extracurricular activities such as sport, rather than other adverse behaviours, is explained in the next quote:

...all the young kids say they want to play football. And it is something I subscribe to activity, other than drinking and fighting. And yeah it kept, mum threw us into everything

you know what I mean. So it was good. It kept us busy and yeah, we loved it. We didn't have any problems really. [Indigenous, not incarcerated, age 25-34, inner regional town]

The protective nature of Indigenous Australian culture and heritage (sixth most common theme) for many young men was conveyed in the following quote:

They see they're bloodlines, family lines, back thousands of years. Some of them know exactly where they've been for the last 5000 years, you know...So they'll sort of worship their totems and story lines more than they would a god...A lot of them, some of them still know language out there, and they do know their skins and their storylines and totems and that...I mean they have that sort of belief a bit more so. [And do you think that sort of helps them?] Absolutely, I reckon that cultural connection. [Indigenous, not incarcerated, age 24-34, inner regional town]

Education and school factors, coping skills, peer group and social factors and reducing violence made up the remaining top ten themes mentioned by the non-incarcerated participants.

Table 11. Top 10 Most Frequently Mentioned Protective Factor Themes by Incarceration Group

Position	Incarcerated participants (n=19)	Number of mentions (total 270)	Non-Incarcerated participants (n=20)	Number of mentions (total 406)
1	Coping skills	49 (18%)	Family and childhood	74 (18%)
2	Role models and mentors	45 (17%)	Role models and mentors	56 (14%)
3	Personal attributes	44 (16%)	Socio-economic circumstances	55 (14%)
4	Education and school	23 (9%)	Personal attributes	49 (12%)
5	Extracurricular activities	21 (8%)	Extracurricular activities	44 (11%)
6	Socioeconomic circumstances	20 (7%)	Culture	36 (9%)
7	Family and childhood	19 (7%)	Education and school	34 (8%)
8	Future hopes and dreams	19 (7%)	Coping skills	29 (7%)
9	Peer group and social	17 (6%)	Peer group and social	17 (4%)
10	Substance use education	13 (5%)	Violence – reducing	12 (3%)

4.2 Discussion

4.2.1 Risk Factors

Family and Childhood Factors

Family and childhood factors were the most commonly mentioned type of risk factor for violence and incarceration overall, and also the top for both Indigenous and the non-Incarcerated participants. Australian and international research supports these findings with childhood exposure to violence, abuse, and psychological distress increasing the risk of violent behaviour for Indigenous and non-Indigenous peoples both in Australia and overseas (AIC, 2015b; Miller et al., 2011; Reavis, Looman, Franco, & Rojas, 2013; Silver & Teasdale, 2005; Tarabah, Badr, Usta, & Doyle, 2015; van Dorn, Volavka, & Johnson, 2012). Further, Kenny and Lennings (2007a), found that for Indigenous men, family problems and having divorced or separated parents were significant risk factors for violence, while having a family member in jail was associated with a higher risk of incarceration. Also supporting these findings, Australian male high school students were also at a higher risk of violent behaviour if they had experienced family conflict, however culture of these participants was unknown (Hemphill et al., 2009).

Personal Attributes

This category, including negative attributes including anger, jealousy, lack of self-belief and lack of respect for self or others, was the second most common overall and for Indigenous participants, the first for non-incarcerated participants, and the third for incarcerated participants. In support of these results, jealousy (of the perceived success and privilege of other families in the community) was found to increase tension and provide a catalyst for alcohol-related violence for Indigenous men in a remote Indigenous Australian community (Shore & Spicer, 2004). Other negative/adverse personality traits commonly associated with violent behaviour include low levels of agreeableness; characterised by callous, rude, antagonistic and sarcastic behaviour and attitudes (Pailing, Boon, & Egan, 2014).

Socio-Economic Circumstances

Adverse socio-economic circumstances, including welfare dependency, social disadvantage, negative economic environment, lack of opportunity, overcrowded housing and unemployment, were the third most common theme overall, the top theme for non-Indigenous participants, however were number 10 for incarcerated participants. It is well recognised that adverse socio-economic circumstances are associated with violence and incarceration for both

Indigenous and non-Indigenous people in Australia and overseas. For example, entrenched poverty and low income were found to increase the risk of perpetrating violent behaviour for male high school students (Hemphill et al., 2009), while social disadvantage increased the risk of Indigenous Australian men perpetrating violence towards others (Shore and Spicer, 2004). This has been attributed to the socioeconomic indicators of remote Indigenous communities often being far worse than other Australian regions (Hudson, 2013). With little or no constructive economic activity, few educational and employment options, it is understandable that many people living in these communities are at a greater risk of adverse outcomes, including violence, crime and incarceration than other Australians (Hudson, 2013).

Violence – Witnessing and History

Payback (a form of customary Indigenous Australian law); witnessing violence; domestic and family violence were all main concerns for the participants in the current study. Overall, and for Indigenous participants, this theme was fourth most commonly mentioned, and third most common for non-Indigenous and non-incarcerated participants. Consistent with these findings, the perpetration of previous violence strongly predicted future violence for Australian male high school students, even after controlling for social structural factors including low income, household unemployment and sole-parent status (Hemphill et al., 2009). Overall, previous violent behaviour increased the risk of future violence by 5 times. As cultural background was not specified in Hemphill et al.'s study, it is unknown if these results included Indigenous students. Despite this, both groups in the current study believed that previous violent behaviour, including witnessing and perpetrating violence as a child or as a young adult was a major risk factor for future violent behaviour.

Peer Group and Social Factors

The negative influence of peer and social groups was the fifth most frequently mentioned risk factor for violent behaviour and incarceration overall, while it was the second for incarcerated participants and the third for Indigenous participants. In support of these results, associating with violent peers has been identified as a risk factor for future violent behaviour for Australian male high school students (Hemphill et al., 2009). Furthermore, this finding may be particularly important for Indigenous Australians, due to the systematic and persistent attack on Indigenous Australian peoples' social and kinship structures brought about by colonisation. According to Adams et al. (2017), the breakdown of social and kinship structures is a key factor in the erosion of spiritual wellbeing for Indigenous people, and a significant contributor to the levels of violence in many Indigenous communities.

Substance Use and Abuse

At number six overall, the use and abuse of alcohol was not the most often cited reason for violent behaviour and incarceration, however it was mentioned most frequently by both non-Indigenous (second most common theme) and non-incarcerated participants (fourth most common theme). A body of research, in both Australia (Hemphill et al., 2011; Kenny & Lennings, 2007a; McKetin et al., 2014; Putt et al., 2005; Scholes-Balog et al., 2013), and internationally (e.g. Briscoe & Donnelly, 2001; Livingston, 2018) supports this association, therefore this result was not surprising. The relatively low level of perceived importance of alcohol abuse (sixth for Indigenous participants) was unexpected, as alcohol abuse is well-documented as a precipitator for much of the violence in many Indigenous Australian communities, with some arguing it is the root cause of such violence (Pearson, 2001).

Health and Mental Health

Health and mental health issues, including trauma from physical and sexual abuse as a child, foetal alcohol syndrome disorder, and mental health disorders were deemed the seventh most important risk factor theme overall, but the second most important according to non-Indigenous participants, but only the seventh for Indigenous participants. Reasons for this difference in belief may include a lack of awareness of mental health issues; a lack of access to health and mental health services in remote and rural areas for Indigenous men; not wanting to speak up about mental health issues; cultural reasons; and normalisation of these issues due to the cycle of generational transmission of violence and trauma (Adams et al., 2017). Research from Darwin, Australia also suggests that Indigenous men do not access services that may support them or address risk factors, due to inflexible and inaccessible service models. Such models disregard or do not include men's perceptions of wellness and are often staffed by people with negative stereotypes about men (Adams et al., 2017; Arney & Westby, 2012).

Furthermore, Green et al. (2009) reported an association between the severity of violent offending and certain psychotic symptoms for Australian men (Indigenous status was not specified). Conduct disorder has also been linked to an increased risk of both violent behaviour and incarceration for Indigenous Australian men (Kenny & Lennings, 2007a), and with violent behaviour by drug users, after controlling for drug use (Torok et al., 2012). Indeed, a common public perception is that mentally ill people are dangerous, however, most individuals with mental health disorders do not exhibit criminally violent behaviour towards others (Jorm & Reavley, 2014; Stuart & Arboleda-Flórez, 2001).

Low Education

In the current study, the role of education factors, including negative school experiences, low attendance and educational attainment, were not given as much importance as would be expected in contributing to violence and incarceration for men in North Queensland (eight overall, seventh for Indigenous participants and incarcerated participants, and tenth for non-Indigenous participants and those participants who were not incarcerated). Despite this, low school grades and being suspended were found to increase the risk of violent behaviour for male high school students in Australia (Hemphill et al., 2009), while low education attainment was detrimental for Indigenous Australian men, increasing their risk of incarceration (Putt et al., 2005). The reason for the lower level of importance of educational factors is not understood, however may also be partly explained by research from the United States, showing that while there is strong evidence for compulsory schooling laws being associated with reduced crime, this is not the case for all individuals (Bell, Costa and Machin, 2015). Bell et al. found no evidence for a significant relationship between compulsory schooling, educational attainment and reduced crime for 'white' individuals, however there was an association for 'black' individuals (Bell et al., 2015, p. 224). The authors concluded that other factors may lie behind the causal impact of education on crime and requires further investigation.

Coping Skills

Participants described various factors within the theme of coping skills, including a lack of support, advice or counselling; running away from problems; and unhealthy coping mechanisms. These types of factors were ninth most often mentioned overall and for Indigenous participants, seventh for non-Indigenous participants, fourth for incarcerated participants, and surprisingly, not in the top ten for non-incarcerated participants. The belief that these types of factors may increase the risk of violent behaviour and incarceration for men in North Queensland is supported by empirical evidence. As Walsh (2007) states, poor quality coping skills and support following trauma, for example, often leads to self-destructive behaviour. The self-medication hypothesis may also help to explain this type of destructive coping, where participants turn to drugs and alcohol to escape or cope with their intense emotions (Khantzian, 1997; Lee, et al., 2015).

Culture

As the results indicate, Indigenous culture was commonly mentioned as a risk factor for violence and incarceration, however was not deemed to be as important as other factors, coming in at tenth, after family, peer group and substance abuse. The types of factors mentioned within

this theme included identifying as Indigenous, the loss / change of culture, and cultural differences between the Indigenous and non-Indigenous Australian worlds. While previous research has identified Indigenous status as a risk factor for violent behaviour (People, 2005) this finding is contentious, with others arguing that Indigenous status does not contribute to violent behaviour or incarceration. Rather it is more likely due to other factors including disadvantage and marginalisation (Kenny & Lennings, 2007a; Snowball & Weatherburn, 2007; Wundersitz, 2010), the structured use of fighting (Langton et al., 1991), and a lack of awareness of Indigenous cultural practices within the criminal justice system (Bushnell, 2017; Homel et al., 1999). Furthermore, as Collins (2015) explains, looking at the circumstantial factors, such as the historical context for Indigenous disadvantage and the political context in which law and policy changes are made, the suggestion of crime and incarceration as a direct link to indigeneity is overly simplistic (Collins, 2017). It is more likely that an increasingly punitive criminal justice system, and a move towards governing through crime, contributes to rising Indigenous imprisonment, for example, rather than Indigeneity itself (Collins, 2017).

4.2.2 Protective Factors

Role Models and Mentors

As the most often mentioned protective factor overall, the top factor for non-Indigenous and non-incarcerated participants, and the second most commonly mentioned for Indigenous participants and incarcerated participants, the presence of positive role models and mentors is a very important factor that cannot be overlooked. Previous research has shown the importance of role models and mentors for young Indigenous men. As Adams et al. (2017) states, there are many strong, resilient Indigenous Australian men, who should be supported to lead other Indigenous men and boys, reconnecting them to their core cultural and traditional customs and protocols. This is a central factor towards lessening violence [particularly towards women] in Indigenous Australian communities (Adams, et al., 2017). There is also a body of research supporting the importance of positive role models for non-Indigenous men (Akers, 2010; Burgess & Akers, 1966; Hirschi, 1969; Topalli et al., 2012), therefore this is an area that requires further consideration in an effort to reduce violent behaviour and incarceration for men in North Queensland.

Personal Attributes

Coming in as the second most frequently mentioned theme overall and for non-Indigenous participants, third for incarcerated, and fourth for Indigenous participants, the

importance of individual personality and emotional factors was highlighted. The types of factors that were frequently referred to included being able to change your own behaviour, control emotions, having self-belief and a sense of identity, being able to self-reflect on your behaviour, and having good morals and values. Consistent with this finding, previous Australian research suggests that certain personal and emotional states may offer protection against the perpetration of violent behaviour. As previous research shows, the ability to control emotions offered protection against violent behaviour for male high school students, as did having a secure attachment with their mother during childhood (Hemphill et al., 2009). Activities surrounding personal healing (counselling, breathing, relaxation), along with drug and alcohol education programs, have been suggested by male Elders in a remote Indigenous community in northern Australia, as ways to reduce violence for Indigenous men and boys (Adams et al., 2017). Furthermore, low impulsivity, easy temperament and prosocial attitudes have a protective effect against violent behaviour for youth, according to Losel and Farrington (2012).

Family and Childhood

Family-based influences were considered very important, at number three overall and number one for Indigenous participants, and those participants who were not incarcerated. The role of parents as positive role models, having high expectations of their children, parents having a good knowledge of raising children, and providing discipline were the factors that were most often discussed, which aligns with previous research. The benefits of having a stable, loving upbringing (Resnick et al., 1997), and positive childhood emotions and attachment (Fergus & Zimmerman, 2005; Hemphill et al., 2009; Izard, 2002; Polan et al., 2013) have been shown to reduce the risk of violent behaviour for men in Australia and overseas. Other, more practical protective family factors have recently been identified by a group of Indigenous men from Darwin, Australia. These include building relationship and communication skills, parenting skills, and education in health and hygiene (including nutrition, living skills, cooking, cleaning, and home budgeting) (Adams et al., 2017).

Coping Skills

The protective nature of factors such as being able to deal with problems, having good communication skills, support and coping mechanisms were the fourth most common type theme overall. For Incarcerated participants, however, the protective nature of these coping skills was the most often mentioned category, while for Indigenous participants it was the third. These findings are consistent with research by Polan et al. (2013), who reported greater interpersonal skills and greater stress management skills were significantly associated with lower risk of involvement in violent behaviour for young adolescents in the United States of America. Polan et

al.'s findings suggest that developing young people's socio-emotional skills may reduce their risk of involvement in bullying and violence. Furthermore, the benefits of enhanced coping skills, including behaviour change techniques such as Cognitive Behavioural Therapy (CBT) were shown to reduce violent behaviour in men who physically abuse their spouses in an earlier study. In this study, Hamberger and Hastings (1988) evaluated a 15-week CBT skills training program for male perpetrators of domestic violence, and found dramatic decreases in violent behaviour following treatment, and at the one-year follow up phase of the study.

Socio-economic Circumstances

The type of factors mentioned frequently in this category included employment opportunities and positive economic and social environments within the community or neighbourhood. These factors were fifth most commonly mentioned overall, third by non-Indigenous and non-incarcerated participants, and sixth by Indigenous participants and incarcerated participants. Indeed, employment has been shown to help reduce negative outcomes such as violent behaviour and incarceration for both Indigenous (Weatherburn et al., 2006; Weatherburn, 2008), and non-Indigenous people (Sabina & Banyard, 2015; Sampson & Laub, 2003). It is likely that this is due to those who are employed having less time to participate in illegal activity, more financial stability, and improved connections with positive, constructive social networks (Hunter, 2001; Sampson & Laub, 2003). Furthermore, as Adams et al. (2017) outlines, pre-employment programs, including adult numeracy and literacy skills, have been recommended by Indigenous men from the Northern Territory, as critical in reducing the high rates of violent behaviour within their community.

Another consideration with the protective nature of higher socio-economic status and circumstances is that people from more advantaged backgrounds are less likely to become involved deeply in the criminal justice system. For instance, factors that are typically associated with involvement in crime and incarceration, including delinquency, delinquent peers, and low self-control, are less pronounced amongst those from higher socio-economic groups (Dennison & Demuth, 2018). Furthermore, those from higher socio-economic groups also have increased resources and access to superior legal representation, minimising their chances of incarceration (Irwin, 1985 cited in Dennison & Demuth, 2018; Reinman & Leighton, cited in Dennison & Demuth, 2018).

Extracurricular Activities

Fishing and hunting, sport and family activities that did not involve alcohol were and the sixth most common protective factor overall and for non-Indigenous participants, while the other

groups mentioned extracurricular activities slightly more (fifth most common). According to Adams et al. (2017), cultural and family activities are very important for Indigenous Australian men, as they lead to increased self-esteem, and enhance the ability for men to cope with negative circumstances. Involvement in sport has been found to act as a diversionary activity that detracts from violent and criminal behaviour and acts as a means of providing young people with opportunities for achieving wider goals including education attainment and gaining employment (McMahon & Belur, 2013). Other research however, suggests that violent behaviour is made more acceptable through sport, being more understandable and excusable as it is “all part of the game” (Wenn, 1989, p. 5). Further, a study by Mutz and Baur (2009) found that participating in sport activities did not automatically prevent violent behaviour for German youth. Rather, other variables, including gender, education, social and immigration background, family violence and peer group attitudes influenced violent behaviour. Membership and participation in sport, however, were not significant factors towards reducing violent behaviour for German youth (Mutz & Baur, 2009).

Education

Indigenous and non-Indigenous participants, and those who were not incarcerated believed education to be equally important (seventh) as a protective factor against violence and incarceration for men in North Queensland. This belief is supported by evidence, for example positive engagement with school was found to be protective against violent behaviour for youth overseas (Barnert, et al., 2015) and for Australian youth (Hemphill et al., 2009), while for Indigenous Australians, finishing Year 12 reduced their likelihood of being incarcerated, according to Weatherburn et al. (2006). Graduating high school has previously been identified internationally as protective against future incarceration (Lochner & Moretti, 2001).

Culture

Cultural factors were considered the eighth most important protective factor overall in reducing violent behaviour and incarceration for Indigenous Australian men from North and Far North Queensland in particular. The types of factors thought important included connecting or reconnecting with traditional beliefs and practices, and the use of Murri law as opposed to laws of mainstream society (the Murri are the Indigenous Australians from modern-day Queensland and North-west New South Wales). There is much evidence for the importance of reconnecting Indigenous Australian men with their culture in a bid to reduce violent behaviour and incarceration. For example, research in Australia by Ferrante (2013) found cultural ‘strengths’ to be associated with a reduced prevalence of arrests for Indigenous Australians in remote

communities. Shepherd et al. (2017) also found that Indigenous Australians who had been incarcerated, but who had strong identity and cultural engagement were significantly less likely to violently re-offend, underscoring the importance of cultural engagement and connections for Indigenous Australian inmates. Shepherd et al. caution, however, that these findings do not imply that strong cultural identity and cultural attachment will reduce violent offending per se. As Adams et al. (2017) states, however, strong Indigenous Australian men must be supported to lead and work with other Indigenous men and boys, reconnecting them to their core cultural practices and traditions, as a central factor to creating change.

Peer Group and Social Factors

Peer group and social factors were ninth most commonly mentioned overall and by all groups, apart from non-Indigenous participants (tenth most common). The beneficial effects of positive peer group influences have been demonstrated in previous research. For example, the influence of positive peers may reduce the chances of young men becoming involved in violence and other risk behaviours (Tomé, Gaspar de Matos, Simões, Camacho, & Alves Diniz, 2012). Peers have a direct influence on adolescents' risk behaviour, with the positive influence of friends connected with protective behaviours. Having friends with few risk behaviours and more protective behaviours can prevent violent and risky behaviour (Tomé et al., 2012).

Future Hopes and Dreams

Coming in at tenth overall, there is supporting evidence to suggest that future hopes and dreams do provide some protective effects against violent behaviour. For example, having future plans, motivations, hopes and positive feelings about the future (future orientation) lead to decreases in violent behaviour over time, as shown with at-risk African-American youth, according to Stoddard, Zimmerman, and Bauermeister (2011). Additionally, future orientation was found to act as a protective factor for these youth, with interventions that support the development of future goals and aspirations playing a vital role in preventing future violent behaviour (Stoddard et al., 2011).

4.3 Conclusion

In conclusion, the most common risk factor categories - being family and childhood factors and personal attributes - were found to be closely aligned for Indigenous, non-Indigenous, incarcerated and non-Incarcerated groups. Socio-economic factors were frequently mentioned by all groups apart from incarcerated men, for whom it was only the tenth most common theme. Similarly, previous violence was less frequently mentioned by incarcerated participants. Coping skills, however were deemed more important to the incarcerated participants than to the remaining groups. Both indigenous and nonindigenous participants rated family and childhood factors as the most frequent risk factor theme for violent behaviour and incarceration.

The results also show that the most commonly mentioned protective factors these being role models and mentors, personal attributes, family and childhood factors and coping skills were similar for the different participant groups. The importance of themes varied slightly for each group. For example, having positive family and childhood experiences and upbringing was the most commonly mentioned for Indigenous and non-incarcerated participants, and fourth most common for non-Indigenous participants, but was only the seventh most common for the incarcerated participants. Conversely, both coping skills and education were more frequently mentioned by the incarcerated participants than the other participant groups.

During the data analysis stage of the qualitative study, a common progression to incarceration was recognised for a group of eleven inmate participants. This trajectory included participants having experienced various types of trauma as a child or young person, a lack of coping skills or no support for the trauma, substance abuse to cope with the mental and physical pain, and spontaneous violence, described as having a 'brain snap' or 'losing it', leading to incarceration.

The term *trajectory* has also been used throughout the qualitative study to explain this progression of circumstances for the eleven participants. While this may indicate that there may have been a causal effect, this is not what the intended meaning was. Rather, it was a common pattern that was identified by these participants during the interviews. This trajectory is reported on in the next section, Part B, with a published article adapted for inclusion in the thesis.

Part B. Exploring the Trajectory from Trauma to Incarceration

4.4 Introduction

This section of Chapter 4 provides further results from Phase 1 of the study. An adapted version of a publication, reporting on a trajectory from trauma to incarceration is also included. A summary of the publication is presented, followed by the results. This includes a description of the sample, and excerpts from inmates' interviews surrounding the topics of trauma, lack of support, substance abuse, losing control, and incarceration. The discussion and concluding paragraph follow.

4.4.1 Paper 2

Honorato, B., Caltabiano, N. & Clough, A.R. (2016). From trauma to incarceration: Exploring the trajectory in a qualitative study in male prison inmates in North Queensland, Australia. *Health and Justice*, 4(3). doi.10.1186/s40352-016-0034-x.
<http://www.healthandjusticejournal.com/content/4/1/3>

(For full details of paper 2, see Appendix B).

Summary of Paper

Of the 34,000 prisoners incarcerated in Australia in 2014, 27% identified as Indigenous Australian. In some areas, such as North Queensland, Indigenous Australians comprise a staggering 71% of prison populations. The most common offences in Australia in 2014 were acts intended to cause injury, comprising 35% of total offences for Indigenous inmates and 18% for non-Indigenous inmates. Previous research has suggested that risk factors for violence and incarceration may differ for Indigenous compared with non-Indigenous Australians. Trauma, either single events or ongoing, has been identified in international research as a risk factor for violence and incarceration regardless of culture. Substance abuse is also a factor commonly associated with violent behaviour across cultures, however, the relationship is complex.

This paper analyses qualitative data from in-depth interviews with eleven Indigenous and non-Indigenous Australian inmates from a high security male correctional centre in North Queensland. A common trajectory to incarceration was identified for both Indigenous and non-Indigenous prisoners, including: childhood and adolescent trauma, a lack of support or treatment

for trauma experiences, substance abuse to mask the pain, and a brain snap (sudden, without conscious thought), precipitating a violent offence, leading to incarceration. Early detection and intervention for trauma victims is imperative to reduce exposure to such a harmful trajectory to incarceration. Further research is required into factors leading to violence and incarceration generally, while the different factors that bring about much higher rates of imprisonment for Indigenous Australians require closer investigation.

4.5 Methodology

This component of the research study involved conducting interviews with male inmates of a high-security correctional centre in the north of Queensland and complements the data that was presented in the preceding section. For a full description of methodology, including participant recruitment, data collection and data analysis, refer to Chapter 3, section 3.2. A total of 39 participants were interviewed for this phase of the study, however the following information is based on the compelling narratives of eleven of the correctional centre participants, who all described a common pathway from trauma to incarceration.

4.6 Results

4.6.1 Description of Sample

Eleven men who were incarcerated, aged from 18 to 44 years (mean age 33.3 years), who were part of the larger qualitative study sample of 39 participants, took part in the current study. A relatively small sample size is acceptable for this type of challenging work due to the use of IPA methodology, with a focus on intensity and richness of information (quality) rather than quantity (Smith, 2004). Most participants grew up in the North Queensland region, with six participants identifying as non-Indigenous and five as Indigenous Australian. Seven participants were single, and the rest were married or had a partner. Four were employed full-time, three had casual work, and three were not employed prior to incarceration. The participants' education levels ranged from Grade 6 to Year 12, with the majority having completed either Year 9 or 10 ($n = 7$). Offences for which the participants were under remand or sentenced for at the time of interviews included: assault, grievous bodily harm, attempted murder, murder, intent to rape, rape, domestic violence, domestic violence breaches, armed robbery, robbery on the run, break and enter, and drug offences.

4.6.2 Themes Identified

Several prominent recurring themes (refer to Figure 13) were identified in the interview data, including various types of trauma as a child or young adult, a lack of coping skills or support, substance abuse, and spontaneous violence (described as a brain snap, and losing it). These themes will each be explained in further detail including the participants' own depiction and narratives of how they lived through and interpreted these experiences.

Trauma

Each of the eleven participants interviewed, including both Indigenous and non-Indigenous Australians, reported trauma in their childhood or adolescence, ranging from one-off events to prolonged exposure. The types of trauma disclosed included: sexual abuse by family or others; family members being assaulted, sexually assaulted, killed or committing suicide; being subject to severe bullying; and not having a father around. Upon reflection during the interviews, several of the inmates recognised and acknowledged, perhaps for the first time, that the trauma was the likely catalyst for their violent behaviour and resulting incarceration.

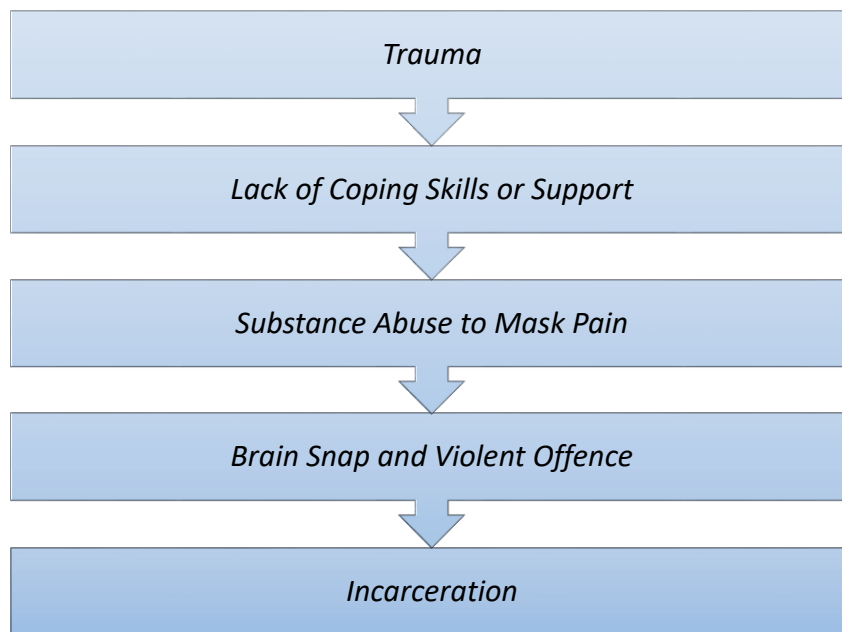


Figure 13. Path diagram of the trajectory from trauma to incarceration

Trauma in the form of abuse and sexual abuse, both at home and in juvenile detention during their childhood and adolescence, was a common occurrence, as the following three inmates articulated:

He was a bad alcoholic my stepfather, um that led to some pretty violent abuse and sexual abuse... this probably went on till I was in Grade 8, when I was 13... When I'd gone from 17 to 18 [years old], you go from boy's yard to mainstream, and then I was sexually assaulted pretty badly at [a previous correctional facility] when I was 18... (non-Indigenous, age 32).

This next inmate described how he was also subjected to repeated trauma, with multiple sexual assaults in various locations:

At one stage because I was so young they put me in the paedophiles yard, cos they said they couldn't put me in with the mainstream population, so they put me in a protected yard with all the paedophiles. That caused a couple of little things there [sexual assault in a previous correctional facility] (non-Indigenous, age 42).

And the third, a 39-year-old man, attributed his drug use to the trauma and embarrassment of being abused:

Yeah, and I think the abuse and that, that I got there [in the boy's home], I think that's why I first started smoking dope, yeah... And they put me in a dorm with older boys there

who then abused me...And I couldn't do anything about it, I couldn't... and I didn't want to tell anyone because it was so embarrassing (non-Indigenous, age 39).

Other participants, both Indigenous and non-Indigenous, recognised the loss or absence of a family member as the likely catalyst for their self-destructive behaviour. For example, this non-Indigenous participant described:

I started using, cos one of my brothers was killed, back when I was 15 and I had a lot of anger issues and I started yeah, like using drugs and drinking... (non-Indigenous, age 43).

Another inmate had lost his father as a young person:

Yeah, since to be honest, since my dad, suicided himself, shot himself, then I started [offending]...My dad shot himself, in 1985, yeah (Indigenous, age 44).

Not having a father around also played a huge role in the negative outcomes for this man:

Oh, I'd never got [a dad] ...Well, the one thing I've always wondered is, I've just wanted to meet my dad (Indigenous, age 19).

And this man attributed his sister being raped and murdered, then being offered drugs in jail as the start of his downfall:

I first had my first lot of heroin in 1994, my older sister was raped and murdered at the time, and someone offered me some heroin when I was in jail, and that's what started it...not just that, a lot of other things happened around the same time, mum passed away shortly after (non-Indigenous, age 43).

Witnessing violence as a child and being helpless to act had a significant effect on one non-Indigenous participant, who as a young child saw his father seriously assaulted and left for dead. During the interview, he began to reflect on whether the childhood incident had any influence on his offence as an adult:

I remember, I reckon I don't know if it's got any bearing on my offence, but I remember my fifth Christmas, when I was only five my dad did have that agro [aggressive] streak, everything like that, I did witness getting the living shit beat out of him by five other people who've come in to try and calm him down, but he went off...watching my dad get the living shit kicked out of him next to the Christmas tree, so... (non-Indigenous, age 23).

One inmate reported that chronic bullying and a lack of friends triggered a yearning for acceptance, which had a devastating effect on his life:

I had a terrible time at school, and all through my younger years I was always picked on, even me [sic] brothers used to pick on me...but real, like I mean really badly bullying all the time... [I was] always in fights, so it was never, it wasn't a good time for me whatsoever, growing up. And um [I] always found it really hard to gain acceptance off people... And like just to have one friend when I was growing up would have been good, but I didn't have any (Indigenous, age 30).

Another participant reflected on how a family tragedy contributed towards his violent behaviour and later incarceration. He was aware of the influence that this event had on his life, and how the trauma and chaos that followed subsequently set him on a path of self-destruction:

Um, oh we've had a fair share of dramas in my family, like we had a house burn down when I was a kid, and um so I, my parents weren't around much, because they had to work because they didn't have insurance...Um, yeah, I was pretty much a normal kid, well I thought I was, wasn't really...[I] wasn't really [delinquent]...no, not at that stage. But I think yeah, that house burning down put a lot of pressure on our family (non-Indigenous, age 39).

Untreated mental health issues, likely resulting from trauma, were also mentioned by several participants. The following excerpts highlight issues of anger and psychosocial distress experienced, either at the time of the trauma or in the following months or years. For example, participants often recognised they had anger management problems or other mental health issues, but never sought or had access to help:

I had a problem, but I never really talked to anyone. And I carried it around for years, I had like an anger problem and I don't know...Yeah, just sort of seemed to carry a lot of anger around, when I should like, got help, to get me through it...And yeah, it was really hard... (non-Indigenous, age 43).

A young Indigenous man explained how his anger escalated quickly, even from a young age:

Like I've always been suspended and expelled from schools for being violent... cos back when I was young...like, a trigger I could go from zero to 100 in a second, I got this really...sort of like the anger where you'd cry and you'd be shaking and that angry that you just want to destroy things...So there was [sic] times there, like I've choked other schoolmates in class, you know, assaulted the principal, assaulted teachers stuff like that (Indigenous, age 30).

And this next participant described how his anger stemmed from the circumstances around his family's tragedy:

Yeah, post traumatic. Yeah. I was pretty angry with my parents too, at the time, for not having insurance. And my brother for burning it down [the house] (non-Indigenous, age 39).

Unfortunately, many participants had little or no access to the type of support needed to come to terms with their trauma at the time, including counselling, family support, or other mental health interventions.

Lack of Support or Coping Skills

Seldom did the participants have access to resources that may have assisted them to cope with the trauma and begin to recover. Several discussed how the lack of parental support had contributed to their ultimate outcome of incarceration:

And cos I didn't have a fatherly figure around me, so well, I didn't notice until now, like until now, well it hit me in jail, like I didn't have a fatherly figure around for me to like guide me and stuff. So back then I wanted to try things myself, instead of like, well if I reckon if I had a fatherly figure back then I wouldn't be in here (Indigenous, age 19).

The lack of recognition that mental health support was needed, therefore not provided, resulted in anger issues for the following man:

Yeah, you don't cry or anything, you know, you just get along with it. But it really upset him as well [Dad], cos he never really talked to anyone as well, you know. He went through a real hard time as well...Yeah, but I sort of got that way that teachers didn't even try and, I just did what I wanted to do, you know. They had no control over me, pretty much. I wouldn't listen to anyone... (non-Indigenous, age 43).

The following man expressed how a lack of friendship and acceptance by others, which may have been alleviated had mental health support been provided, led him to find support with the wrong people:

And that's where I initially met some members of a motor cycle gang. And ah, I met them there and played football with them and they invited me to one of their parties...And you know, I felt like I, that thing that was missing out of my life, acceptance, and friends you know, stuff like that, I found that there. You know, and you know it's everything I ever wanted. Just to be accepted for who I was, you know...Um, which I never had when I was

a kid. So basically, yeah, I just found acceptance, and you know everything spiralled (Indigenous, age 30).

Lack of support and mental health issues often led participants to cope on their own with their psychological distress, frequently in a self-destructive manner. The majority of those interviewed were using alcohol and/or illicit drugs prior to their offences, and all were under the influence of one or more substances at the time of their offence.

Substance Abuse to ‘Mask the Pain’

Many of the participants expressed how using drugs or alcohol ‘masked’ the psychological pain that they were feeling, which is consistent with the Self-medication hypothesis whereby individuals when overwhelmed with psychological pain, use substances to help cope with or express suppressed emotions (Khantzian, 1997; Lee et al., 2015). Participants described substance use was pleasurable, and admitting to willingly abusing drugs and alcohol, despite being warned of the dangers. Others began using after being encouraged by peers to take drugs to reduce their psychological discomfort:

And like I was panicking and shaking [running away from police] so um, I learned how to smoke...what’s that...marijuana? Yeah, I heard some of them boys said, “Oh it’s cool yah [sic] everything down”, so then I smoked that...I didn’t want to try that, but when they were talking to me about marijuana, I was like “oh, yeah.” So I tried marijuana, I loved it cos it just make [sic] my body relax, settle my blood pressure, and all them one [sic]. Make me think of, not think of the negative stuff, just zone out like just like see some like funny stuff, like yeah. And it’s easier to laugh when you look at them [sic] stuff when you in that zone... (Indigenous, age 19).

Another participant described drugs as part of his lifestyle, and also to mask his pain:

Yeah well pretty much like, my lifestyle...I started using drugs and that when I was 15, 16 years old. And then I became a chef...my lifestyle sort of went hand in hand. I used to use a lot of drugs and that, just to sort of, I don't know, just to mask everything (non-Indigenous, age 43).

The next man acknowledged he turned to alcohol instead of seeking help for grief:

Oh, I guess just pressures of outside, there wasn’t really much pressure, but it was more of a, my mum passed away and grief got the best of me. Instead of turning to help I just turned to alcohol, you know? (Indigenous, age 39).

In a particularly powerful transcript, one participant described the feeling that using heroin gave him and how it allowed him to escape from his problems:

I'd run away from home...I just found myself living with older blokes that were using and...I was pretty much flying, I started using needles and shooting up heroin. And for a long time, it's just, it just suppressed everything, like heroin's just the sort of drug that pulls a warm blanket over you (non-Indigenous, age 32).

Others described how using drugs and alcohol dulled the pain, however invariably caused more harm than good. Being under the influence of alcohol and drugs eventually led to lives escalating out of control, as highlighted here by both Indigenous and non-Indigenous participants:

I tried drugs and sort of those problems just went away. I dunno [sic] if I took it intentionally to, but they just disappeared slowly, and they come back twice as hard when I got off em [sic] (non-Indigenous, age 42).

Drug use also escalated into other harmful behaviours, as this young man described:

From that same shit now, sorry for my language, but from the same stuff now...I try things like I don't normally do, like [sexual assault], violence and stuff, stealing...Yeah. I was drunk...when I was on the run I started trying drugs (Indigenous, age 19).

The next participant also describes the escalation of drug use and violence and spiralling out of control:

Everything was good for the first year or two but eventually everything spiralled out of control and I started drugs and doing it a lot...Started doing violent things...I only started drinking when I was 17, 16...And smoking marijuana and stuff like that at that age, eventually that turned into ecstasy and cocaine and speed...Yeah, that's when I started getting into dealing drugs, and ... you know, anything and everything I could possibly do (Indigenous, age 30).

Alcohol was also a significant contributor to violence, and the feeling of being out of control, as described by the following participant:

Alcohol is a massive one too, underline alcohol. Alcohol is the worst mate...you do stupid shit on alcohol mate, you know. It's the worst drug out there...I mean you could go further and you could say a lot of times alcohol is the biggest factor, it was a factor with me on this particular instance. I was drunk and there was [sic] things going on in my life, but the thing is, so it's no excuse, coming down to alcohol (non-Indigenous, age 30).

Substance abuse was consistently mentioned by all inmates as a contributing factor, or even the perceived cause of their violent behaviour. Violent behaviour was often unplanned and occurred when the individual was under the influence of alcohol or drugs.

Brain Snap or Losing It

Having a brain snap, losing it, or exploding, are some of the ways inmates described the moment of committing their violent offence or offences that led them to incarceration. A *brain snap* may be defined as a sudden act of violence that was inappropriate, done without conscious thought, and almost always regretted immediately afterwards (Fields, 2015). As explained by Panskepp (2010), this type of sudden, intense anger or rage can occur with no external provocation, particularly when a person is irritated, restrained, or their freedom of action is curtailed. The neural network in the brain that is behind this type of rage reaction includes the medial amygdala and hypothalamus, to the dorsal periaqueductal grey (PAG) (Panskepp, 2010). This rage network interacts closely with the fear systems of the brain, highlighting the classic fight/flight response, which is a physiological reaction that occurs in response to a perceived harmful event, attack or threat to survival (Panskepp, 2010).

The following participants explain how they put up with a certain amount of provocation or frustration, but reached a point where they just exploded, and violently lashed out at their victim. The following extracts are typical of those reporting this experience:

And then one day it was like 15 years after it happened, and one day I just sort of lost it, and yeah killed someone ... I don't know, it was just like something snapped, I had no control over it...and when I realised what had happened I couldn't believe it, like... just something built up, built up and built up and just whoosh, come straight out...I've always had a problem with that...I bottle a lot of stuff up and I'm still trying to find ways of letting it out without taking it out on anyone else in front of me, you know (non-Indigenous, age 43).

The next participant also describes how he reached his trigger point:

It's ridiculous yeah, when I was confronted by him [victim], who knows, I wasn't thinking, like your brain is reduced to thinking in simplest terms mate...I'm a happy drunk...Not on that night but...a trigger point for me is when someone...threatens me. Gets in my space, do you know what I mean? (non-Indigenous, age 30).

Not knowing where to go for help, and bottling things up led to tragic outcomes for this participant:

Ah, I tried to kill my family...what happened was I kind of bottled it up instead of talking to people, cos I didn't really know there was help outside...I bottle stuff up until I get drunk and then I just explode (Indigenous, age 30).

Again, the use of alcohol was a major factor leading to a loss of control over anger for this young man:

I was drunk, I was under the influence of alcohol and drugs, and I just exploded aye [sic] (Indigenous, age 26).

It is evident that, for many of the participants in this study, there is a common trajectory from childhood, adolescent and early adulthood trauma to incarceration. This trajectory consistently included the following elements: trauma, a lack of support, substance abuse, uncontrollable anger and violence, resulting in incarceration (see Figure 13). It is noteworthy that there were no substantial differences apparent between Indigenous and non-Indigenous inmates with regards to these common themes and the trajectory to violent behaviour and incarceration. While there may be subtle differences that could be revealed with further interviewing, the course for the inmates who participated in this study was very similar.

4.7 Discussion

In the current study, a traumatic event or ongoing trauma as a young person was commonly identified as a catalyst for future violence. The types of trauma commonly described by the inmates included: serious ongoing bullying, death or absence of a close family member, witnessing violence towards others, and other one-off-events such as the family home burning down. The impact of such trauma for these Indigenous and non-Indigenous men from North Queensland is consistent with findings from literature available elsewhere. For example, a study conducted in the USA found that up to 90% of justice-involved youth had exposure to some type of trauma, typically beginning in early life, in multiple contexts, and persisting over time (Dierkhising et al., 2013). Supporting this, youth in detention and incarceration often have histories of complex trauma, such as poly-victimisation, life-threatening accidents and interpersonal loss (Ford, Chapman, Connor, & Cruise, 2012). According to Walsh (2007), the outcomes of trauma depend greatly on whether victims are provided with support, including comfort, reassurance and safety from others. Strong connections, with trust that others will be there for them when needed, counteract feelings of insecurity, helplessness and meaninglessness. Trauma survivors blocked from healing may perpetuate their suffering through self-destructive behaviour, such as substance abuse, or revenge and harm toward others, often leading to involvement in the criminal justice system (Khantzian, 1997; Lee et al., 2015; Walsh, 2007).

Mental health issues resulting from the trauma were also common, for example, one participant specifically referred to his own suffering as *post-traumatic stress*. By far, the most common issue that participants identified was their uncontrollable anger. While the participants were not screened for mental health disorders as part of this study, previous research has shown mental health problems are prevalent in young inmates, with nearly one quarter (23.6%) of incarcerated youth meeting the criteria for post-traumatic stress disorder (Dierkhising et al., 2013). Furthermore, extreme trauma during childhood increases the risk of serious problems such as oppositional defiant disorder, depression, anxiety, risk taking and substance abuse, which in turn often lead to reactive aggression (Ford et al., 2012). Additionally, there is a higher risk of destructive behaviour when painful feelings are unable to be expressed or are not supported (Walsh, 2007). Along with trauma and lack of support, all the inmates interviewed in this study were under the influence of alcohol and/or drugs at the time of their violent offences, and for many, there was a long history of substance abuse.

Substance abuse was the principal means the participants used to mask the pain of the past, allowing them to relax and cope with, or temporarily forget their problems. As one inmate described his experience, when using heroin, it “pulls a warm blanket over you.” This behaviour is consistent with the *self-medication* hypothesis, whereby individuals, either being overwhelmed with pain, or being numb to their emotions, use substances to allow them to either cope with, or express suppressed emotions (Khantzian, 1997; Lee et al., 2015). Self-medication is often used to help cope with feelings of depression or anxiety (Turner, et al. 2018); mental distress and illness, including psychological trauma, and post-traumatic stress disorder (Tull, 2018). Research shows self-medication is a prevalent behaviour in general population samples, with younger age, Caucasian, separated, divorced or widowed men are more likely to self-medicate with drugs or alcohol (Turner, et al. 2018). Self-medication for psychological distress is also a prevalent issue in populations with higher income and education levels, perhaps due to the social acceptance of using alcohol, for instance, as a stress reliever (Turner et al. 2018).

Self-medication is commonly reported among adults with mood or anxiety disorders (Sarvet, Wall, Keyes et al., 2018); and Post-traumatic stress disorder (Tull, 2018). Self-medication with alcohol and drugs is thought to modulate effects and treat distressful psychological states, with individuals choosing the drug that will most appropriately manage their specific type of distress, and achieve emotional stability (Khantzian, 1997; 2003). While self-medication may provide immediate relief of distressing psychological symptoms, it may also evoke/exacerbate symptoms of underlying or latent psychological disorders (Genetic Science Learning Centre, 2013; Khantzian, 2003), and worsen the effects of affective psychological deficits (Khantzian, 2003). Additionally, people who report self-medicating with alcohol and/or drugs are significantly more likely to develop comorbid Substance use disorders, such as cannabis and/or alcohol addiction or dependence (Turner et al., 2018; Genetic Science Learning Centre, 2013).

Invariably for the inmates in the current study, drug and alcohol use escalated out of control and (anecdotally) contributed directly to their violent criminal behaviour. Combined with untreated anger and possible mental health issues, substance use commonly led to a *brain snap*, while participants were under the influence of substances. A *brain snap* is a sudden, inappropriate act, made without conscious thought, and almost always regretted immediately afterwards (Fields, 2015). This sudden, intense anger or rage can occur with no external provocation, particularly when a person is irritated, restrained, or their freedom is restricted (Panskepp, 2010). Indeed, evidence shows that offenders with highly impulsive or antisocial profiles, who were intoxicated at the time of their offence, tended to act without forethought (Declercq, Willemsen, Audenaert, & Verhaeghe, 2012). Instead, they impulsively snap leading to

uncontrollable violent behaviour, with the immediate objective being to reduce or eliminate the seemingly overwhelming threat facing them (Declercq et al., 2012).

As the result of this study indicate, the identified trajectory from childhood trauma to adult incarceration was an experience common to both Indigenous and non-Indigenous participants. While many individual, social and environmental factors influence whether an individual will commit violence and become incarcerated (Homel et al., 1999; Zubrick et al., 2010), it is compelling in these findings that non-Indigenous participants describe significant trauma of the type usually ascribed to Indigenous prison inmates. This raises the question of whether indigeneity itself confers unacceptable risk for incarceration, as this study indicates there are many similarities in risk factors.

While there is some evidence that Indigenous culture in itself is a risk factors for violent behaviour and incarceration (e.g. People, 2005, Nowra, 2007), these findings are not well supported, with other evidence indicating that Indigenous status does not contribute to violent behaviour or incarceration (Snowball & Weatherburn, 2006). As Wundersitz asserts, alcohol and illicit drug use, gender, age, childhood experiences of violence and abuse, exposure to pornography, low levels of education, low income, lack of employment, unstable housing, poor physical and mental health, geographic location, and lack of access to services are more likely the main risk factors for violent behaviour for Indigenous Australians (Wundersitz, 2010). Indeed, alcohol use/abuse is thought to be the main contributing factor, over and above structural factors such as socioeconomic disadvantage (Wundersitz, 2010). The association between alcohol use/abuse and violent behaviour is supported by ample evidence in Australia and overseas, for both indigenous and non-indigenous people (Ezzati et al., 2006; Giancola et al., 2003; Kenny & Lennings, 2007a; Public Health Association of Australia, 2014; Rossow & Bye, 2013). Other factors, including adverse and stressful childhood experiences and environments, including childhood exposure to violence, abuse, and psychological distress have been found to increase the risk violent behaviour for indigenous and non-Indigenous peoples both in Australia and overseas (AIC, 2015b; Miller et al., 2011; Reavis, Looman, Franco, & Rojas, 2013; Silver & Teasdale, 2005; Tarabah, Badr, Usta, & Doyle, 2015; van Dorn, Volavka, & Johnson, 2012).

This evidence helps to explain why the Indigenous and non-Indigenous participants in the current study experienced such similar experiences and outcomes, regardless of race. Furthermore, it has been argued that the strategic use of crime by policy makers has led to a targeting of indigenous offenders, and a related increase in incarceration rates. In an increasing punitive, risk-based criminal justice system, policy makers are driven by popular fears and

conceptions of crime and race rather than rational evidence (Collins, 2017). By looking at the circumstantial factors, such as the historical context for Indigenous disadvantage and the political context in which law and policy changes are made, the suggestion of crime and incarceration as a direct link to indigeneity is overly simplistic (Collins, 2017). It is more likely that an increasingly punitive criminal justice system, and a move towards governing through crime, contributes to rising Indigenous imprisonment rather than Indigeneity itself (Collins, 2017).

4.8 Conclusion

In conclusion, this section described the common trajectory, or circumstances, from trauma to incarceration, identified with Indigenous and non-Indigenous inmates at a correctional centre in North Queensland. This trajectory typically began with a specific event or prolonged experience of trauma occurring during childhood or adolescence, including: experiencing or witnessing violence, the death or absence of family members, prolonged bullying as a child, and ongoing sexual abuse. A lack of support for the trauma, along with maladaptive coping methods, commonly led to uncontrollable anger and possible stress disorders for these inmates. Consistently, alcohol and illicit drugs were used to mask the psychological pain of the trauma. Finally, pent up frustration or anger triggered many participants to eventually explode or have a 'brain snap' and commit a violent offence against another individual, ultimately leading to their incarceration.

With the discussion of the qualitative phase complete, the focus of the thesis now moves to the quantitative study results, Phase 2 of the project. The next section, Chapter 5 describes the quantitative findings of the surveys in relation to risk and protective factors for the perpetration of violent behaviour for men in North Queensland.

Chapter Five: Quantitative Study on Risk and Protective Factors Towards Violent Behaviour for Men in North Queensland

5.0 Background

For an extensive discussion on the background of this paper, including risk and protective factors for violence, refer to Chapter 1, Part A (Introduction).

5.0.1. Paper 3

Honorato, B., Caltabiano, N., & Clough, A.R. An exploratory study of risk and protective factors for the perpetration of violence towards others for men in North Queensland, Australia. *Victims and Offenders*, submitted.

(For full details of paper 3, see Appendix C).

Summary of Paper

Violent offences, or acts intended to cause injury, were the most common offence type in Australia in 2016, comprising 17% of offences for non-Indigenous prisoners, and considerably more (33%) for Indigenous Australian prisoners. Previous research has identified numerous risk factors for violent behaviour, including substance abuse, adverse childhood experiences, religious beliefs, and indigenous status. Protective factors previously identified include education, employment, religious beliefs, positive childhood events and emotions, and being in a relationship. In North Queensland, where high rates of violence and incarceration are observed, research into risk and protective factors for men is lacking.

To explore the risk and protective factors for the perpetration of violent behaviour for men in North Queensland, a survey was developed and completed by 85 participants (aged 18 to 68, $M = 35$ years), 35% of whom were Indigenous Australian. Additionally, 43% of the 85 participants were prison inmates. Logistic regressions revealed that being a frequent cannabis user predicted perpetration of violence towards others, while education to TAFE, trade or tertiary level reduced the risk. Comparison of significant factors was also determined, finding alcohol use and cannabis use to be associated with violent behaviour for non-Indigenous participants; while

education level was associated with violent behaviour for both Indigenous and non-Indigenous participants.

Intervention and treatment efforts focusing on male cannabis users, or those at risk of using cannabis, and providing more opportunity for education and training to higher, technical or vocational level could help to reduce high rates of violence in North Queensland in the future.

5.0.2 Study Aim and Rationale

Although various risk and protective factors towards violent behaviour have been identified in previous studies, there is a lack of research surrounding these factors for Indigenous and non-Indigenous men, including prisons inmates, from North Queensland. Given that a considerable proportion of people living in this region endure hardship and marginalisation and face much higher rates of violence than the general population, it is probable that other more salient risk and protective factors may exist. Identifying these factors will ensure these critical issues are targeted for intervention and preventative programs, to attempt to decrease the high rates of violent behaviour in this region.

This study, therefore, aims to fill the gap in research with men from North Queensland, by exploring factors associated with the perpetration of violent behaviour towards others, in a sample including Indigenous Australians and prison inmates. Three hypotheses were developed, as follows:

Hypothesis 1. Indigenous culture, holding religious beliefs, frequent alcohol use, frequent cannabis use, negative childhood events and negative childhood emotions will be significantly associated with an increased risk of violent behaviour towards others.

Hypothesis 2. A higher level of education, employment, being in a relationship, religious beliefs, positive childhood emotions, and positive childhood events will be significantly associated with reducing violent behaviour violence towards others.

Hypothesis 3. Differences will exist in factors that are significantly associated with violence for Indigenous compared with non-Indigenous participants.

5.1 Methodology

For a full description of methodology for this study, including study setting, participant recruitment, survey design and validation and statistical model development, please refer to Chapter 3, sections 3.2.8 and 3.3. A detailed description of variables included in the analysis is also presented in Chapter 3, Table 4.

5.2 Results

5.2.1 Description of Sample

As shown in Table 12, 85 participants were included in the sample, with ages ranging between 18 and 63 years ($M = 34.8$, $SD = 8.5$). One third (36%) identified as Indigenous Australian, almost half (42%) were non-Indigenous, while 18% did not disclose their culture. Most participants (63%) were employed either at the time of the study, or for inmates, just prior to being incarcerated. Over two thirds of participants (71%) had an education level of Year 10 or above. Of the 85 participants, 37% held religious beliefs, 71% had used alcohol, while just under half of the participants had used cannabis in their lifetime (41%). Approximately half (48%) had perpetrated violence of some kind towards another person, while 43% of the sample were either current ($n = 35$) or previous ($n = 2$) prison inmates.

Table 12. Descriptive Statistics of Sample of 85 Study Participants According to Violent Behaviour Status

Variable name	Total sample n=85	Violent behaviour n=44	No violent behaviour n=41
Age	18-63 (M=34.8)	19-63 (M=35.5)	18-56 (M=34.1)
Culture			
<i>Indigenous</i>	31 (36%)	17 (51%)	11 (36%)
<i>Non-Indigenous</i>	36 (42%)	16 (49%)	20 (64%)
<i>Not answered</i>	18 (21%)		
Employment			
<i>Non/unemployed</i>	11 (13%)	9 (22%)	2 (6%)
<i>Stay home / retired/ volunteer / student</i>	11 (13%)	5 (12%)	6 (17%)
<i>Employed full time / self employed</i>	43 (51%)	20 (49%)	23 (66%)
<i>Employed part time / casual</i>	11 (13%)	7 (17%)	4 (11%)
<i>Not answered</i>	9 (10%)		
Education			
<i>Year 9 or below</i>	17 (20%)	13 (32%)	4 (11%)
<i>Year 10 to 12</i>	38 (45%)	23 (56%)	15 (42%)
<i>Trade, TAFE, Uni</i>	22 (26%)	5 (12%)	17 (47%)
<i>Not answered</i>	8 (9%)		
Relationship			
<i>Single/divorced/separated/widowed</i>	36 (42%)	22 (55%)	14 (40%)
<i>Defacto/partner/married</i>	39 (46%)	18 (45%)	21 (60%)
<i>Not answered</i>	10 (12%)		
Religious beliefs			
<i>Yes</i>	32 (38%)	22 (54%)	10 (28%)
<i>No</i>	45 (53%)	19 (46%)	26 (72%)
<i>Not answered</i>	8 (9%)		
When became religious (n=32)			
<i>As a child/teenager</i>	13 (41%)	8 (36%)	5 (62%)
<i>As an adult</i>	4 (13%)	4 (13%)	0 (0%)
<i>I have always been religious</i>	13 (41%)	10 (45%)	3 (38%)
<i>Not answered</i>	2 (5%)		
Alcohol use			
<i>Never</i>	6 (7%)	2 (5%)	4 (16%)
<i>Daily</i>	16 (19%)	12 (29%)	4 (16%)
<i>Weekly/monthly</i>	39 (47%)	26 (63%)	13 (52%)
<i>Yearly/ < yearly</i>	5 (6%)	1 (2%)	4 (16%)
<i>Not answered</i>	19 (22%)		
Cannabis use			
<i>Never</i>	32 (38%)	13 (32%)	19 (76%)
<i>Daily</i>	15 (18%)	14 (34%)	1 (4%)
<i>Weekly/monthly</i>	9 (11%)	8 (19%)	1 (4%)
<i>Yearly/ < yearly</i>	10 (12%)	6 (15%)	4 (16%)
<i>Not answered</i>	19 (22%)		
Ever been incarcerated			
<i>Yes</i>	37 (44%)	32 (87%)	5 (13%)
<i>No</i>	48 (56%)	9 (19%)	39 (81%)

5.2.2 Risk Factors

As shown in Table 13, univariate analysis revealed frequent cannabis use to be the most strongly associated variable with violence, with frequent users almost nine times more likely to have committed violence towards another person than infrequent users, OR = 8.61, 95% CI = 2.84-26.15, $p = .001$. Frequent alcohol users were just over five times more likely to commit violence than infrequent users, OR = 5.10, 95% CI = 1.66-15.71, $p = .004$. Holding religious beliefs compared with not holding religious beliefs increased the risk of perpetrating violence towards others threefold, OR = 3.01, 95% CI = 1.16-15.71, $p = .023$. Further, for every unit increase in the score on the negative events scale, the odds of a participant having perpetrated violence increased by almost one and a half times, OR = 1.45, 95% CI = 1.14-1.84, $p = .002$; while for every unit increase in the negative emotions score, the odds of violent behaviour increased one and a quarter times, OR = 1.25, 95% CI = 1.06-1.48, $p = .009$.

Multivariate logistic regression was then performed, with the model containing six variables: culture, alcohol use, cannabis use, religious beliefs, negative childhood events and negative childhood emotions (Table 13).

Table 13. Risk Factors for Violence towards Others: Univariate and Multivariate Logistic Regressions

Independent Variable	Univariate analysis			Multivariate analysis		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
Culture <i>n</i> = 74	-	-	-	-	-	-
Non-indigenous†	1.73	0.67-4.46	.259	1.17	0.32-4.22	.811
Indigenous	-	-	-	-	-	-
Religion <i>n</i> = 77	-	-	-	-	-	-
Not Religious†	3.01	1.16-7.81	.023	1.40	0.39-5.00	.603
Religious	-	-	-	-	-	-
Alcohol use <i>n</i> = 71	-	-	-	-	-	-
Infrequent User†	5.10	1.66-15.71	.004	2.79	0.73-10.69	.135
Frequent User	-	-	-	-	-	-
Cannabis use <i>n</i> = 71	-	-	-	-	-	-
Infrequent User†	8.61	2.84-26.15	.001	4.79	1.41-16.35	.012
Frequent User	-	-	-	-	-	-
Negative childhood events <i>n</i> = 71	1.45	1.14-1.84	.002	1.16	0.86-1.57	.338
Negative childhood emotions <i>n</i> = 71	1.25	1.06-1.48	.009	1.14	0.91-1.43	.249

†reference category

The full model was statistically significant, $\chi^2(6, N = 69) = 24.24, p = .001$; indicating that it could reliably distinguish between respondents that had and had not reported committing violence towards another person. The model explained between 29.6% (Cox and Snell R square) and 40.0% (Nagelkerke R squared) of the variance in violence status, and correctly classified 73.9% of cases. Cannabis use retained a strong association, with frequent users almost five times more likely to have committed violence against another person than infrequent users, OR = 4.79, 95% CI = 1.41-16.35, $p = .012$.

5.2.3 Protective Factors

Univariate analysis revealed that participants who had completed education to TAFE, trade or tertiary level were considerably less likely to have committed violence compared with those with lower education levels, OR = 0.09, 95% CI = 0.02-0.43, $p = .002$; as shown in Table 14. None of the other factors including employment, relationship status, positive childhood events or positive childhood emotions reduced the likelihood of a participant committing violence towards another person. The full multivariate logistic regression model containing all variables was statistically significant, $\chi^2(6, N = 68) = 17.30, p = .008$; indicating that it could distinguish between respondents that had and had not reported committing violence towards another person. The model explained between 22.5% (Cox and Snell R square) and 30.3% (Nagelkerke R squared) of the variance in violence status, and correctly classified 72.1% of cases. As presented in Table 12, education to TAFE, trade or tertiary level was the only variable to make a statistically significant contribution to the model. Participants with higher education levels were less likely than those with lower education attainment to have committed violence against another person, OR = .03, 95% CI = 0.00-0.28, $p = .003$. Moreover, there was a trend in the odds ratios suggesting the expected relationship between increased education and an increased protective effect.

Table 14. Protective Factors for Violence towards Others: Univariate and Multivariate Logistic Regressions

Independent Variable	Univariate analysis			Multivariate analysis		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
Employment <i>n</i> = 76						
Not employed†	-	-	-	-	-	-
Employed	0.57	0.21-1.58	.282	0.89	0.22-3.66	.873
Education <i>n</i> = 76						
Year 9 or below†	-	-	-	-	-	-
Year 10-12	0.47	0.13-1.72	.256	0.15	0.02-1.42	.098
TAFE/trade/tertiary	0.09	0.02-0.43	.002	0.03	0.00-0.28	.003
Relationship <i>n</i> = 75						
No Partner†	-	-	-	-	-	-
Partner	0.55	0.22-1.37	.196	0.95	0.30-2.97	.932
Positive childhood events <i>n</i> = 71						
	0.98	0.88-1.10	.793	0.97	0.82-1.15	.743
Positive childhood emotions <i>n</i> = 71						
	1.00	0.89-1.12	.997	0.94	0.78-1.11	.457
†reference category						

5.2.4 Cross Tabulations

Cross tabulations were performed to compare which factors (categorical variables) were significantly associated with violence for Indigenous participants and also for the non-Indigenous participants, highlighting any differences in factors between these two groups (see Table 15).

Non-Indigenous Participants

Chi square tests of independence (with Yates Continuity Correction) indicated that there were significant associations between violence and alcohol use, $\chi^2 (1, n = 41) = 3.96, p = .047, phi = .362$; and violence and cannabis use, $\chi^2 (1, n = 41) = 7.31, p = .007, phi = .471$, for non-Indigenous participants. A chi square test of independence also revealed a significant association between violence and education level, $\chi^2 (2, n = 44) = 8.93, p = .012, Cramer's V = .451$. Chi square tests of independence (with Yates Continuity Correction) revealed no significant associations between violence and relationship status, $\chi^2 (1, n = 43) = 1.12, p = .290$; religious beliefs, $\chi^2 (1, n = 44) = 0.44, p = .509$; or employment status, $\chi^2 (1, n = 44) = .56, p = .455$.

Indigenous Participants

A chi square test of independence revealed significant associations between violence and education levels, $\chi^2 (2, n = 29) = 6.49, p = .039$, Cramer's $V = .473$, for Indigenous participants. Chi square tests of independence (with Yates Continuity Correction) revealed no significant associations between violence and the following variables: relationship status, $\chi^2 (1, n = 30) = 0.00, p = 1.000$; religious beliefs, $\chi^2 (1, n = 30) = 3.17, p = .075$; alcohol use, $\chi^2 (1, n = 28) = .06, p = .804$; cannabis use, $\chi^2 (1, n = 28) = 32.55, p = .060$; or employment status, $\chi^2 (1, n = 30) = 0.00, p = 1.000$, for the Indigenous group of participants.

Table 15. Significant Associations Between Violence and Independent Variables for Indigenous Compared with Non-Indigenous Participants: Cross Tabulations

Variable	Culture	χ^2	df	n (%)	p	Cramer's V	phi
Relationship*	Non-Indigenous	1.12	1	43 (58.9%)	.290		
	Indigenous	0.00	1	30 (41.1%)	1.000		
Education	Non-Indigenous	8.93	2	44 (60.3%)	.012	.451	
	Indigenous	6.49	2	29 (39.7%)	.039	.473	
Religion*	Non-Indigenous	0.44	1	44 (59.4%)	.509		
	Indigenous	3.17	1	30 (40.5%)	.075		
Alcohol*	Non-Indigenous	3.96	1	41 (59.4%)	.047		.362
	Indigenous	0.06	1	28 (40.6%)	.804		
Cannabis*	Non-Indigenous	7.31	1	41 (59.4%)	.007		.471
	Indigenous	3.55	1	28 (40.6%)	.060		
Employment*	Non-Indigenous	0.56	1	44 (59.5%)	.455		
	Indigenous	0.00	1	30 (40.5%)	1.000		

*with Yates Continuity Correction for 2 x 2 table

5.3 Discussion

Hypothesis 1. Indigenous culture, religious beliefs, alcohol use, cannabis use, negative childhood events and negative childhood emotions will be significantly associated with violent behaviour towards others.

Overall, cannabis use was most strongly associated with violent behaviour for participants in the current study, with frequent users almost five times more likely to have perpetrated violence compared with infrequent users. In support of these results, violent behaviour has been associated with cannabis-induced psychosis and paranoia in general (non-indigenous) populations (Hall et al., 2001; Moss & Tarter, 1993). Further, symptoms of cannabis withdrawal syndrome include both irritability and aggression, which may be precursors to violent behaviour (Budney & Hughes, 2006; Coffey et al., 2002; Sherman & McCrae, 2016). It is also possible that cannabis may be used as a form of self-medication by some individuals who have a tendency towards violent behaviour (Lee et al., 2015). While this self-medication hypothesis is not well supported (Hall et al., 2001; Patton et al., 2002), violent offenders in a recent qualitative study in the same population as the present study confirmed the use of drugs, including cannabis, to cope with various negative events in their lives, such as childhood trauma (Honorato, Caltabiano, & Clough, 2016).

In the region where the current study was conducted, the evidence suggests that participants were likely to have had higher rates of cannabis use than reported in other populations. It is generally recognised that cannabis use is prolific in Indigenous communities in remote northern Australia, particularly where strict alcohol restrictions are in place (Bohanna & Clough, 2012; Lee et al., 2015). People in these areas may also be vulnerable to violence due to social and historical trauma and tensions (Lee et al., 2015; Select Committee on Substance Abuse in the Community, 2007). Further, a government report on the safety of Indigenous children outlined the impact of cannabis-related violence on families and children and noted that this violence commonly occurred when cannabis supply was limited in northern Australia (Wild & Anderson, 2007). Contrary to these findings, however, a recent study found that cannabis diminishes aggressive feelings in regular cannabis users (De Sousa Fernandes Perna, Theunissen, Kuypers, Toennes, & Ramaekers, 2016). Due to these varied findings, the role of cannabis use in predicting violent behaviour requires further investigation.

Indigenous culture was not associated with violent behaviour in either univariate or multivariate analysis in the current study, which is consistent with previous research (Kenny & Lennings, 2007a) but contrary to People (2005). The remaining four variables, religion, alcohol use, negative childhood events and negative childhood emotions, were significantly associated in univariate analysis however did not remain predictive in multivariate analysis. Previous research is mixed for the association between religion and violence, as some studies have found religion to be a risk factor for criminal behaviour, while others have outlined the protective nature of religion against violence (e.g. Brewerton, 1994; Robinson, 2015; Siddle et al., 2002; Spatz Widom & Wilson, 2015; Thalbourne & Delin, 1994; Walsh et al., 2002). The current study findings, however, do not support holding religious beliefs as a risk factor for violent behaviour.

While an association between violent behaviour and alcohol misuse is well documented in Australia and internationally (Ezzati et al., 2006; Giancola et al., 2003; Kenny & Lennings, 2007a; Public Health Association of Australia, 2014; Rossow & Bye, 2013), alcohol use was not significantly associated with violent behaviour in multivariate analysis in the current study. This unexpected result may be due to the increased use of cannabis by many of the participants, particularly those who normally reside in areas where the sale and possession of alcohol is restricted under Alcohol Management Plans (AMPs) (Bohanna & Clough, 2012). Due to the inconsistencies in these findings, the alcohol-violence association warrants further investigation in this study population.

While other research shows a positive relationship between adverse childhood experiences and aggressive behaviour in later life (Reavis et al., 2013; Tarabah et al., 2015), this was not supported in the current study. As many participants were from disadvantaged, marginalised and remote areas of North Queensland, childhood adversity including negative events and emotions, violent experiences and other stressors may be more frequently experienced and even considered normal, with neighbourhoods even perceived as good (Dunlap, Golub, Johnson, & Benoit, 2009).

Hypothesis 2. A higher level of education, being employed, being in a relationship, positive childhood events and positive childhood emotions will be significantly associated with a reduction in violence towards others.

Univariate and multivariate analyses revealed education to TAFE, trade or tertiary level as the only variable to be significantly associated with a reduction in the perpetration of violence towards others. These findings are supported by previous research, for example, educational

attainment and school connectedness were found to be protective against future violent behaviour for youth in two Australian studies (Chapman et al., 2014; Hemphill et al., 2009). International research also shows improved school performance and retention, positive school experiences and learning achievements, and attachment and commitment to school protect against future violent behaviour (Hawkins et al., 1999; MacKenzie, 2002; Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011). Similarly, research with Indigenous Australians has shown that those with a higher level of education, or who had completed Year 12, had a reduced risk of arrest, charge and incarceration for violent offences (Weatherburn et al., 2006, 2008). As Hawkins et al. (1999) explain, attachment and commitment to school may protect against behaviours, such as violence, that violate socially accepted norms. The results of the current study highlight the importance of higher education, including vocational training (for example, TAFE and trade), not just completing high school, as a potentially important factor in assisting men in North Queensland to reduce or desist from perpetrating violent behaviour.

While previous research shows employment (Hunter, 2001; Sabina & Barnard, 2015; Sampson & Laub, 2003), being in a relationship or married (Amato & Booth, 1997; Nock, 1998; Wilcox et al., 2005), positive childhood events (Resnick et al., 1997), and positive childhood emotions and attachment (Fergus & Zimmerman, 2005; Hemphill et al., 2009; Izard, 2002; Polan et al., 2013) to be protective against violent behaviour, these results were not supported in the current study. It is possible that due to the nature of the geographical location that participants reside in, employment was not protective as there are little or no opportunities for employment in many of these areas (Hudson, 2013). Indeed, of the 85 participants who completed the survey, less than half were employed full time (n=37, 43.5%), with just 10 (11.7%) Indigenous and 27 (31.8%) non-Indigenous participants in full time work. A further 10 (11.7%) Indigenous and 6 (7.0%) non-Indigenous participants were unemployed. Due to the relatively low numbers of participants with full time work, the benefits of employment were not likely to be obvious within this sample.

Overall, positive childhood events and emotions were not significantly associated with a reduction in violence for participants in the current study. Participants may have had low levels of positive childhood experiences in general, therefore the protective influence on their future violent behaviour would be negligible. It is also acknowledged that many young people experience positive childhoods and go on to commit violent offences for many reasons that may not be connected to their upbringing (Garbarino, 2001). Being in a relationship was not protective for men against perpetrating violence in the current study. As a proportion of participants were incarcerated for domestic and family violence offences, it is plausible that

violent behaviour may be exacerbated by being in a relationship rather than act as a protective factor for these men. The other consideration is that for the Indigenous participants, family structure may have a different meaning than for the non-Indigenous participants (Kolar & Soriano, 2000; Tam et al., 2017; Zubrick et al., 2010). It is likely that Indigenous participants place more importance on protective nature of kinship and extended family structures, rather than the relationships with a partner or wife (Kolar & Soriano, 2000; Tam et al., 2017; Zubrick et al., 2010).

Hypothesis 3. Differences will exist in factors that are significantly associated with violence for Indigenous compared with non-Indigenous participants.

Hypothesis 3 was partly confirmed, as cross tabulations showed alcohol and cannabis use to be significantly associated with violence for non-Indigenous but not Indigenous participants. Alcohol has long been recognised as a factor contributing to violence for people in both Australia and overseas (e.g. Boles & Miotto, 2003; Day et al., 2012; Jayaraj et al., 2012). The results for Indigenous Australians, however are very surprising, particularly when considering the high level of alcohol use in North Queensland, including in remote Indigenous communities (Bohanna & Clough, 2012; Clough, 2005; Clough et al., 2014; Lee, Clough, Conigrave, Jaragba, Dobbins & Patton, 2009). Again, the higher use of cannabis due to AMPs in many of these areas may also have contributed to these results.

In the current study, education level was found to be significantly associated with a reduction in violent behaviour for both Indigenous and non-Indigenous participants. This is supported by Australian and international research showing the importance of completing school or attaining a higher education level, in reducing both the risk of violent behaviour and incarceration for violent crime (Chapman et al., 2014; Hawkins et al., 1999; Hemphill et al., 2009; MacKenzie, 2002; Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011; Weatherburn et al., 2006, 2008).

5.4 Conclusion

Of great concern is the use of cannabis and its association with violence, and the implications for future violent behaviour by both Indigenous and non-Indigenous Australian men. The role that both cannabis use and cannabis withdrawal syndrome have in increasing the risk of violent behaviour requires investigation, as historically cannabis has been associated with lower rates of aggression, and alcohol abuse with higher rates. The importance of social determinants, particularly education to a tertiary or vocational level, is also highlighted in this study. Interventions and initiatives to increase individual strengths and protective factors, including education, and providing useful, occupational training would likely assist men in North Queensland to move towards gainful employment, therefore working towards lowering the rates of violence in this unique population. While the results for education as a protective factor towards violent behaviour are consistent with previous research, and with the results of the qualitative phase of the current study, the conflicting findings for the role of alcohol and cannabis use and violent behaviour for Indigenous Australian men warrants further investigation.

With the discussion of the results from the quantitative analysis related to risk and protective factors for violent behaviour now complete, the next section, Chapter 6, presents the quantitative results for risk and protective factors for incarceration.

Chapter Six: Quantitative Study on Risk and Protective Factors for Incarceration for Men in North Queensland

6.0.1 Paper 4

Honorato, B., Caltabiano, N., & Clough, A.R. Exploring risk and protective factors towards incarceration for men from North Queensland, Australia. *Journal of Experimental Criminology*, submitted.

(For full details of paper 4, see Appendix D).

Summary of Paper

Incarceration rates in Australia are increasing annually, with a 7% rise recorded in 2016/2017. Of great concern, Indigenous Australians are incarcerated at 13 times the rate of non-Indigenous Australians. Previous research suggests risk factors for incarceration include being from a minority group, being unmarried, low education levels, family conflict and substance abuse. Protective factors may include high educational attainment, employment, being in a relationship, and religious beliefs. Research into risk and protective factors for male incarceration in North Queensland is lacking, therefore this study aims to explore these factors.

A sample of 85 men including 30 Indigenous Australians, completed a survey relating to risk and protective factors for incarceration. Of the total participants, 37 (43%) were prison inmates (35 current, 2 previous). Logistic regressions were performed to calculate odds ratios and determine the variables that are significantly associated with incarceration. Frequent cannabis use and holding religious beliefs were found to increase the risk of incarceration, while higher education, positive childhood events and being in a relationship were protective. Furthermore, significant associations between incarceration and education, relationship status, religious beliefs and cannabis use were found for non-Indigenous participants; while education and religious beliefs were significantly associated with incarceration for Indigenous participants. Intervention focusing on young men who use, or are at risk of using, cannabis could help reduce the high rates of incarceration in this population. Increasing education levels, including vocational education, and fostering positive personal relationships and positive childhood experiences may also assist to reduce incarceration rates for men from North Queensland. Further investigation is also required into the increased risk of incarceration for religious participants.

6.0.2 Study Aim and Rationale

Rather than reduce criminal behaviours, incarceration may promote and reinforce risk-taking and delinquent behaviours, particularly for youth (Barker et al., 2015). Exploring the risk and protective factors for incarceration for men from North Queensland is therefore an important step towards reducing incarceration rates in this region. North Queensland is a unique environment, with a mixture of regional and remote cities and towns with their own specific social and economic issues, including exceptionally high incarceration rates for Indigenous men. Intervening early enough to assist young boys and men in this region to reduce or avoid contact with the criminal justice system; along with strength-based approaches that seek to understand and develop skills, talents and assets could transform the lives of at-risk young males in positive ways. For a more detailed discussion of incarceration rates and risk and protective factors, please refer to the background information commencing at Chapter 1, section 1.4.6.

The aim of the current study was to explore risk and protective factors associated with incarceration for men from North Queensland, including Indigenous Australians, correctional centre inmates, and community members. Three hypotheses were formulated, as follows:

Hypothesis 1. Risk factors that may be associated with incarceration for men in North Queensland may include Indigenous culture, alcohol use, cannabis use, negative childhood events and trauma, negative childhood emotions, and religious beliefs.

Hypothesis 2. Protective factors that may be associated with a reduction in the likelihood of incarceration for North Queensland men, may include higher education levels, being employed, being in a relationship, positive childhood experiences and positive childhood emotions.

Hypothesis 3. Differences may exist in factors that are significantly associated with incarceration for Indigenous compared with non-Indigenous participants.

6.1 Methodology

Please refer to Chapter 3, sections 3.2 and 3.3, for detailed methodology for this phase of the study, including study setting, participant recruitment, survey design and validation, variables, model development and statistical analysis. A detailed description of variables included in the analysis is also presented in Chapter 3, Table 4.

6.2 Results

6.2.1 Description of Sample

As outlined in Table 16, the sample comprised 85 participants, whose ages ranged from 18 to 63 years ($M = 35$, $SD = 8.5$). Of the total participants, 37 were current ($n = 35$) or previous ($n = 2$) prison inmates. Cultural backgrounds of participants included Indigenous Australian (36%), non-Indigenous Australian (42%) and unknown culture (18%). Over a third (38%) of participants held religious beliefs and 64% were employed either at the time of the study, or for inmates, just prior to being incarcerated. The majority (71%) had an education level of Year 10 or above. Many participants (72%) had used alcohol, while fewer participants (38%) had ever used cannabis in their lifetime. For participants who were, or had been incarcerated previously, the average sentence was 6.9 years, with a sentence range of 1 to 20 years.

Table 16. Descriptive Statistics of Sample of 85 Study Participants According to Violent Behaviour Status

Variable name	Total sample (n=85)	Incarcerated (n=37)	Not incarcerated (n=40)
Age (years)	18-63 (M=34.8)	19-63 (M=35.0)	18-56 (M=34.8)
Culture			
<i>Indigenous Australian</i>	31 (36%)	15 (56%)	13 (35%)
<i>Non-Indigenous Australian</i>	36 (42%)	12 (44%)	24 (65%)
<i>Not answered</i>	18 (21%)		
Employment			
<i>Non/unemployed</i>	11 (13%)	8 (22%)	3 (8%)
<i>Stay home / retired/ volunteer / student</i>	11 (13%)	8 (22%)	3 (8%)
<i>Employed full time / self employed</i>	43 (51%)	15 (40%)	28 (72%)
<i>Employed part time / casual</i>	11 (13%)	6 (16%)	5 (12%)
<i>Not answered</i>	9 (10%)		
Education			
<i>Year 9 or below</i>	17 (20%)	14 (38%)	3 (7%)
<i>Year 10 to 12</i>	38 (45%)	18 (49%)	20 (50%)
<i>Trade, TAFE, Uni</i>	22 (26%)	5 (13%)	17 (43%)
<i>Not answered</i>	8 (9%)		
Relationship			
<i>Single/divorced/separated/widowed</i>	36 (42%)	24 (67%)	12 (31%)
<i>Defacto/partner/married</i>	39 (46%)	12 (33%)	27 (69%)
<i>Not answered</i>	10 (12%)		
Religious beliefs			
<i>Yes</i>	32 (38%)	25 (68%)	7 (17%)
<i>No</i>	45 (53%)	12 (33%)	33 (83%)
<i>Not answered</i>	8 (9%)		
When became religious (n=32)			
<i>As a child/teenager</i>	13 (41%)	10 (42%)	3 (50%)
<i>As an adult</i>	4 (13%)	4 (17%)	0 (0%)
<i>I have always been religious</i>	13 (41%)	10 (42%)	3 (50%)
<i>Not answered</i>	2 (5%)		
Alcohol use			
<i>Never</i>	6 (7%)	2 (6%)	4 (13%)
<i>Daily</i>	16 (19%)	13 (37%)	3 (10%)
<i>Weekly/monthly</i>	39 (47%)	20 (58%)	19 (61%)
<i>Yearly/ < yearly</i>	5 (6%)	0 (0%)	5 (16%)
<i>Not answered</i>	19 (22%)		
Cannabis use			
<i>Never</i>	32 (38%)	10 (29%)	22 (71%)
<i>Daily</i>	15 (18%)	15 (43%)	0 (0%)
<i>Weekly/monthly</i>	9 (11%)	6 (17%)	3 (10%)
<i>Yearly/ < yearly</i>	10 (12%)	4 (11%)	6 (19%)
<i>Not answered</i>	19 (22%)		
Perpetrated violence towards others			
<i>Yes</i>	41(48%)	32 (87%)	9 (19%)
<i>No</i>	44 (52%)	5 (13%)	39 (81%)

6.2.2 Risk Factors for Incarceration

Univariate analysis revealed the strongest individual association with incarceration was holding religious beliefs (see Table 17). Participants who held religious beliefs were almost ten times more likely to be or have been incarcerated than non-religious participants, OR = 9.82, 95% CI = 3.38-28.55, $p = 0.001$. Frequent cannabis users were almost six times more likely than infrequent users to be, or have been incarcerated, OR = 5.79, 95% CI = 2.07-16.16, $p = 0.001$; while frequent alcohol users were almost four times more likely to be incarcerated than infrequent users, OR = 3.62, 95% CI = 1.19-10.97, $p = 0.023$. Having a greater number of negative childhood events occur was also predictive of participants being incarcerated. For every unit increase in the negative childhood events score, there was an increase of around 30% in the odds of incarceration, OR = 1.28, 95% CI = 1.04-1.56, $p = .017$. Negative childhood emotions were also predictive of incarceration, with every unit increase in the score associated with a 16% increase in the odds of having been incarcerated, OR = 1.16, CI = 1.00-1.33, $p = .047$.

Multivariate analysis (see Table 17) used a model with six variables: culture, religion, alcohol use, cannabis use, negative childhood events and negative childhood emotions. The full model containing all variables was statistically significant, $\chi^2(6, N = 71) = 33.58, p = .000$; indicating that it could reliably distinguish between respondents who had and had not been incarcerated. The model explained between 38.5% (Cox and Snell R square) and 51.4% (Nagelkerke R squared) of the variance in incarceration status, and correctly classified 79.7% of cases. Holding religious beliefs and frequent cannabis use were the only two variables to make a statistically significant contribution to the multivariate model. Religious participants were 14 times more likely to be incarcerated than non-religious participants, OR = 14.09, 95% CI = 3.06-62.80, $p = .001$; while frequent cannabis users were almost 6 times more likely to be incarcerated than infrequent cannabis users, OR = 5.79, 95% CI = 1.49-22.55, $p = .011$.

Table 17. Risk Factors for Incarceration: Univariate and Multivariate Logistic Regressions

Independent Variable	Univariate analysis			Multivariate analysis		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
Culture <i>n</i> = 74						
Non-Indigenous†	-	-	-	-	-	-
Indigenous	1.72	0.67-4.39	.256	0.66	0.16-2.71	.561
Religion <i>n</i> = 77						
Not religious†	-	-	-	-	-	-
Religious	9.82	3.38-28.55	.000	14.09	3.06-62.80	.001
Alcohol use <i>n</i> = 71						
Infrequent User†	-	-	-	-	-	-
Frequent User	3.62	1.19-10.97	.023	3.06	0.63-15.01	.167
Cannabis use <i>n</i> = 71						
Infrequent User†	-	-	-	-	-	-
Frequent User	5.79	2.07-16.16	.001	5.79	1.49-22.55	.011
Negative childhood events <i>n</i> = 71						
	1.28	1.04-1.56	.017	0.96	0.69-1.33	.812
Negative childhood emotions <i>n</i> = 71						
	1.16	1.00-1.33	.047	1.16	0.87-1.43	.381
†reference category						

6.2.3 Protective Factors against Incarceration

Univariate analysis revealed participants were considerably less likely to have been incarcerated if they had completed Year 10 to 12, OR = 0.20, 95% CI = 0.05-0.72, $p = 0.014$; or TAFE/trade/tertiary level education, OR = 0.08, 95% CI = 0.02-0.34, $p = 0.001$. Participants who were in a relationship were also less likely to be incarcerated than those who were not in a relationship, OR = .22, 95% CI = 0.08-0.59, $p = 0.002$. Employed participants (either at the time of data collection for non-inmates, or just prior to incarceration for inmates), were also less likely to have been incarcerated compared with participants who were not employed, OR = 0.24, 95% CI = 0.08-0.71, $p = 0.010$. Neither positive childhood events or positive childhood emotions reduced the likelihood of incarceration in this sample.

Multivariate modelling (see Table 18) also included five variables: employment, education, relationship, positive childhood events and positive childhood emotions. Culture was excluded from the protective factor model, as although it did not reach statistical significance in the previous analysis, the odds ratio (OR = 1.72), indicated it was a potential risk rather than a protective factor. The full model containing all variables was statistically significant, $\chi^2(6, N = 69)$

= 32.78, $p = .000$; indicating that the model could distinguish between respondents that had and had not been incarcerated. The model explained between 37.8% (Cox and Snell R square) and 50.5% (Nagelkerke R squared) of the variance in incarceration status, and correctly classified 79.7% of cases.

The variables that remained protective in the multivariate model included education, relationship status and positive childhood events. Participants with Year 10 to 12, OR = 0.06, 95% CI = 0.01-0.73, $p = .026$; or TAFE/trade/tertiary education, OR = 0.03, 95% CI = 0.00-0.36, $p = .006$; were less likely to have been incarcerated than those with Year 9 or lower education levels. Participants who were in a relationship, OR = 0.28, 95% CI = 0.08-0.99, $p = .048$; were less likely to be incarcerated than those who were not in a relationship. Additionally, while not significant in the univariate analysis, multivariate analysis revealed that a greater number of positive childhood events reduced the likelihood of incarceration. For every unit increase in the positive childhood events score, there was a 20% decrease in the odds of participants having been incarcerated, OR = 0.79, 95% CI = 0.64-0.96, $p = .020$.

Table 18. Protective Factors for Incarceration: Univariate and Multivariate Logistic Regressions

Independent variable	Univariate analysis			Multivariate analysis		
	OR	95% CI	p	OR	95% CI	p
Employment $n = 76$						
Not employed†	-	-	-	-	-	-
Employed	0.24	0.08-0.71	.010	0.47	0.99-2.27	.350
Education $n = 77$						
Year 9 or below†	-	-	-	-	-	-
Year 10-12	0.20	0.05-0.72	.014	0.06	0.01-0.73	.026
TAFE/trade/tertiary	0.08	0.02-0.34	.001	0.03	0.00-0.36	.006
Relationship $n = 75$						
No partner†	-	-	-	-	-	-
Partner	0.22	0.08-0.59	.002	0.28	0.08-0.99	.048
Positive childhood events $n = 71$						
	0.91	0.81-1.03	.136	0.79	0.64-0.96	.020
Positive childhood emotions $n = 70$						
	1.08	0.95-1.20	.219	1.16	0.96-1.42	.137
†reference category						

6.2.4 Cross Tabulations

Cross tabulations were performed to compare which categorical variables were significantly associated with incarceration for Indigenous and non-Indigenous participants (see Table 19).

Non-Indigenous Participants

A chi square test of independence indicated a significant association between incarceration and education level, $\chi^2 (2, n = 44) = 12.94, p = .002$, Cramer's $V = .490$, for non-Indigenous participants. Chi square tests of independence (with Yates Continuity Correction) indicated significant associations between incarceration and relationship status, $\chi^2 (1, n = 43) = 6.17, p = .013, phi = -.427$; religious beliefs, $\chi^2 (1, n = 44) = 6.72, p = .010, phi = .441$; alcohol use, $\chi^2 (1, n = 41) = 3.89, p = .048, phi = .360$; and cannabis use, $\chi^2 (1, n = 41) = 8.69, p = .003, phi = .510$, for non-Indigenous participants. No significant association was revealed between employment status and incarceration for non-Indigenous participants, $\chi^2 (1, n = 44) = 1.48, p = .223$.

Indigenous Participants

A chi square test of independence indicated a significant association between incarceration and education levels, $\chi^2 (2, n = 29) = 9.55, p = .008$, Cramer's $V = .504$, for Indigenous participants. Chi square tests of independence (with Yates Continuity Correction) indicated associations between incarceration and religious beliefs, $\chi^2 (1, n = 30) = 8.14, p = .004, phi = .591$, for Indigenous participants. No significant associations were found for Indigenous participants between incarceration and relationship status, $\chi^2 (1, n = 30) = .96, p = .328$; alcohol use, $\chi^2 (1, n = 28) = .00, p = 1.000$; cannabis use, $\chi^2 (1, n = 28) = 1.17, p = .280$; or employment status, $\chi^2 (1, n = 30) = 1.64, p = .201$.

Table 19. Significant Associations Between Incarceration and Independent Variables for Indigenous and Non-Indigenous Participants: Cross Tabulations

Variable	Culture	χ^2	df	n,%	p	Cramer's V	phi
Relationship*	Non-Indigenous	6.17	1	43 (58.9%)	.013		-.427
	Indigenous	0.96	1	30 (41.1%)	.328		
Education	Non-Indigenous	12.94	2	44 (60.3%)	.002	.490	
	Indigenous	9.55	2	29 (39.7%)	.008	.504	
Religion*	Non-Indigenous	6.72	1	44 (59.4%)	.010		.441
	Indigenous	8.14	1	30 (40.5%)	.004		.591
Alcohol*	Non-Indigenous	3.89	1	41 (59.4%)	.048		.360
	Indigenous	0.00	1	28 (40.1%)	1.000		
Cannabis*	Non-Indigenous	8.69	1	41 (59.4%)	.003		.510
	Indigenous	1.17	1	28 (40.1%)	.280		
Employment*	Non-Indigenous	1.48	1	44 (59.4%)	.223		
	Indigenous	1.64	1	30 (40.5%)	.201		

*With Yates Continuity Correction for 2 x 2 tables

6.3 Discussion

Hypothesis 1. Risk factors for incarceration for men in North Queensland would include: religion, Indigenous culture, alcohol use, cannabis use, negative childhood events and negative childhood emotions.

Univariate analysis revealed religious beliefs, alcohol use, cannabis use, negative childhood events and negative childhood emotions to be associated with incarceration, however, in multivariate analysis, only religious beliefs and frequent cannabis use remained significant. Participants who held religious beliefs were almost 14 times more likely to be or have been incarcerated than non-religious participants. To support these findings, mental health disorders such as schizophrenia often include religious delusions and hallucinations (Brewerton, 1994; Siddle et al., 2002; Grover et al., 2014; Thalbourne & Delin, 1994; Walsh et al., 2002), and the association between mental health disorders and incarceration is well recognised (Hiday & Moloney, 2014). Despite being less dangerous to society than others, the criminal justice system has been said to serve as a means of social control for people whose behaviours are perceived as putting them at risk of harming self or others (Hiday & Moloney, 2014). It is possible that participants in the current study may have suffered mental health disorders including schizophrenia with religious delusions or hallucinations. Although participants were not screened for mental health disorders during the study, all were deemed in good psychological health by the correctional centre MRA prior to, and at the time of participation.

Supporting the current findings, religious beliefs did not prevent criminal behaviour, nor inhibit the fear of negative consequences such as incarceration in previous research (Topalli et al., 2012). In fact, offenders actively used their religion to rationalise past offences, and justify the continuation of serious criminal behaviour (Topalli et al., 2012). While only 4 of the 85 participants in the current study reported developing religious beliefs during adulthood, it is possible that those with existing religious beliefs may have strengthened their faith during their incarceration, to cope with boredom or stress or justify their crimes. Religion as a coping method has been associated with serious misconduct while incarcerated, even after personal factors (age, culture and marital status) were controlled for (Rocheleau, 2014). As religion is also thought to protect against criminal behaviour and incarceration (Akers, 2010; Burgess & Akers, 1966; Hirschi, 1969; Topalli et al., 2012), further research into the association between religion and incarceration for men in North Queensland is required, as underlying reasons for these findings are unclear.

In the current study, frequent cannabis users had almost six times higher the risk of incarceration than infrequent users, a result consistent with multivariate analysis. In the qualitative study (described in Chapter 4), many inmates named the use of substances including cannabis as a main cause of their incarceration (Honorato et al., 2016). Supporting the current study, a study with male and female Indigenous youth in juvenile detention in New South Wales found cannabis dependence to be significantly correlated with re-incarceration within 18 months (Indig, Frewen & Moore, 2014). Other research has found cannabis use to be a precursor to incarceration with, for example, Australian prison inmates (Payne et al., 2013), and Indigenous Australian prison inmates (Rogerson et al., 2014). Additionally, cannabis is the most prolific illicit drug used in many remote Queensland Indigenous communities, particularly those with strict alcohol restrictions in place (Bohanna & Clough, 2012; Lee et al., 2009). Many participants in the current study grew up and usually reside in these remote areas, therefore may have had higher rates of cannabis use than previous research populations. Therefore, the association between cannabis use and incarceration may be due to a higher number of cannabis users being incarcerated for a range of violent crimes, rather than a directly causal factor as such.

Univariate analysis revealed that alcohol use increased participants' chances of incarceration by more than three and a half times. Alcohol misuse has previously been associated with a higher risk of incarceration, for both Indigenous and non-Indigenous Australians (Australian National Council on Drugs [ANCD], 2013; RCIADIC, 1992; Tarabah et al., 2015; Weatherburn et al., 2006, 2008). Following multivariate analysis however, the predictive effect of alcohol disappeared. Participants in the current study may have been more likely to use cannabis due to alcohol restrictions being in place (Bohanna & Clough, 2012; Lee et al., 2009), therefore, it is understandable their incarceration may have been more strongly associated with cannabis use rather than alcohol use. Despite this, the relationship between alcohol use and incarceration requires further investigation, due to the large evidence base of research implicating alcohol as a key factor in violent behaviour and incarceration, and inconsistency with these findings in the current study.

Negative childhood events and emotions were predictive of incarceration in univariate, but not multivariate analysis. This is contrary to the considerable body of evidence worldwide showing an association between negative childhood events including trauma, and incarceration as adults (Barnert et al., 2015; Bowlby, 1988; Farrington, Coid, & Murray, 2009; Hagan & Dinovitzer, 1999; Will, Whalen, & Loper, 2014). Further, many participants were from disadvantaged remote communities, so may have come to view the negative circumstances and childhood adversity of their life as normal, a phenomenon described by Dunlap et al. (2009).

Hypothesis 2. Protective factors, reducing the likelihood of incarceration for North Queensland men will include: higher education levels, being employed, being in a relationship, positive childhood events, and positive childhood emotions.

Both univariate and multivariate analysis revealed that completing Year 10 to 12, or TAFE/trade/tertiary education, reduced the likelihood of incarceration. Supporting this, Weatherburn et al. (2006) reports that completing Year 12 was protective against incarceration for Indigenous Australian men. International research shows that improved school performance and retention and graduating from high school can reduce the risk of an individual's involvement in crime and incarceration (Barnert et al., 2015; MacKenzie, 2002). Indeed, positive school experiences and learning achievements have lifelong protective effects against antisocial and criminal behaviours (Barnert et al., 2015; Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011).

Being in a relationship significantly reduced the likelihood of incarceration for participants in the current study. Previous research confirms the protective effects of marriage, including better day-to-day functioning, mental health, physical health, life satisfaction and opportunities (Amato & Booth, 1997; Nock, 1998; Waite & Gallagher, 2000; Wilcox et al., 2005). More relevant to the current study, being married was a strong protective factor against recidivism in various research (Howser, Grossman, & Macdonald, 1983; Kemp, Glaser, & Page, 1992; Lanier, 1993; Urbaniok et al., 2007), while married men experienced more successful transitions from prison to home than single men (Hairston, 2001).

Supporting the results of the current study, links between positive childhood experiences and success as an adult are well established (Haveman, Wolfe, & Spaulding, 1991), and may buffer highly aggressive children against negative outcomes in adulthood (Kokko & Pulkkinen, 2000; Kokko, Tremblay, Lacourse, & Nagin, 2006). Positive and prosocial childhood behaviours have also been negatively associated with later criminality (Hamalainen & Pulkkinen, 1996).

While univariate analysis found employment protective against incarceration, this was not supported in multivariate analysis. Despite this, previous research has found employment to reduce the likelihood of incarceration for men in Australia and overseas (for example, Gelber, Isen, & Kessler, 2014; Weatherburn et al., 2006). Employment is thought to protect against criminal behaviour by reducing time available for illegal activities, reducing financial disadvantage (Hunter, 2001), and strengthening social bonds and connections to social institutions (Hawkins & Weis, 2015; Hunter, 2001; Sampson & Laub, 2003).

Hypothesis 3. Differences would exist in factors that are significantly associated with incarceration for Indigenous compared with non-Indigenous participants.

Several variables were found to be significantly associated with incarceration for non-Indigenous but not Indigenous participants, while others were significantly associated for both cultural groups, as follows.

Non-Indigenous participants. Consistent with the multivariate analysis in the current study, and with prior research (Payne et al., 2013), frequent cannabis use was found to be a precursor to incarceration for many Australian prison inmates. Frequent alcohol use was also associated with incarceration for non-Indigenous men, and much evidence underlies this finding (e.g. ANCD, 2013; Tarabah et al., 2015). Interestingly, alcohol and cannabis use were not associated with incarceration for Indigenous participants, when analysed separately from the non-Indigenous participants. While the reasons for this in the current study are unclear, various factors may have influenced this result. These include the relatively small sample size, and the unequal proportions of Indigenous ($n = 28$) compared with non-Indigenous ($n = 41$) participants, along with missing data for 23 participants. Despite these limitations, the recommended rate for cross tabulations of at least 80% of cells having a minimum of five independent observations was achieved (Pallant, 2007), therefore this explanation does not seem likely. Other confounding variables may have influenced the associations between both alcohol use and cannabis use and incarceration for Indigenous Australian participants. Due to the prolific alcohol and cannabis use in many remote areas of Queensland (Bohanna & Clough, 2012; Clough, 2005) these substance-related behaviours may have become somewhat normalised for many participants. Further confounding the results may be the higher rates of crime in general in many Indigenous communities (Dawes et al., 2017; Memmott et al., 2001).

Also consistent with the findings in the current study, relationship status has previously been found to be a protective factor against incarceration for non-Indigenous men. It is thought this may be due to elements that make up the essence of marriage, including improved mental and physical health and life satisfaction (Amato & Booth, 1997; Nock, 1998; Waite & Gallagher, 2000; Wilcox et al., 2005).

Both non-Indigenous and Indigenous participants. Education levels were significantly associated with incarceration for both Indigenous and non-Indigenous men. Corresponding with these findings, Weatherburn et al. (2006) detailed the protective influence of Year 12 for Indigenous men, while other research supports these findings for non-Indigenous men (Corrado & Cohen, 2011; MacKenzie, 2002). Religious beliefs were also significantly associated with

incarceration for both Indigenous and non-Indigenous Australian men. This supports the previous statistical analysis as described in Hypothesis 1 above, which found religion as a significant risk factor for incarceration for the study participants. Previous research, however, has found religion to be both a risk and protective factor for incarceration (Akers, 2010; Rocheleau, 2014; Topalli et al., 2012). Due to the inconsistency in these findings, further research is required to determine the underlying explanations for this association. The reasons behind the differences in significant factors for Indigenous compared with non-Indigenous participants are currently undetermined. Possible explanations include other unidentified factors (confounding variables) having more of an influence over the risk of incarceration, compared with those factors that were analysed. While the survey was developed from interviews within the same population group who had expert knowledge of the risk and protective factors for both Indigenous and non-Indigenous men in North Queensland, some important factors may not have been captured in the interviews or the survey.

6.4 Conclusion

Education and early intervention to assist young people to delay use or abstain from cannabis uptake is required, as previously recommended by Rogerson et al. (2014). It is also important that risk factors such as cannabis use, and negative childhood experiences be considered within the scope of the criminal justice system. As Serin, Chadwick, and Lloy (2016) stress, identifying and managing needs, and developing and supporting individual strengths to reduce offending and reoffending may allow inmates to become constructive, functioning contributors to society. Furthermore, the socioeconomic indicators of remote Indigenous communities are far worse than those of urban populations (Hudson, 2013). There is little or no constructive economic activity in many remote areas, with few educational and employment options available without leaving the community (Hudson, 2013). The importance of such social determinants, including education, particularly to a tertiary or vocational level is highlighted in this study. Initiatives to increase education levels and provide useful, occupational training will assist men in North Queensland to move towards gainful employment, therefore working towards lowering the rates of incarceration in this unique population. By educating and assisting men to improve relationships with significant others, lower rates of violent behaviour and incarceration may also be achieved.

Cross tabulations showed that alcohol use, cannabis use, and relationship status were significantly associated with incarceration for non-Indigenous but not for Indigenous participants. Religious beliefs and education level were significantly associated with incarceration for both Indigenous and non-Indigenous participants. Employment status was not significantly associated with incarceration for either Indigenous or non-Indigenous participants. While different factors may be significantly associated with incarceration for non-Indigenous compared with Indigenous participants, there were no factors that were particularly unique to Indigenous Australian participants, as have been suggested to exist in previous research (Langton et al., 1991; Zubrick et al., 2010), however further investigation into this is required. Different methods of intervention may be required depending on the culture of participants, to achieve lower incarceration rates for men in North Queensland. As Barnert et al. (2015) acknowledged, breaking the cycle of incarceration requires the public health community, educators, legislators, community leaders and young people to work towards reducing risks and increasing strengths, and rather than incarceration, presenting alternate pathways for disadvantaged young people.

Now that the results of both Part A (violence) and Part B (incarceration) of the quantitative study have been presented, the discussion now moves on to Chapter 7, the main discussion, conclusion and recommendations.

Chapter Seven: Discussion, Conclusion and Recommendations

7.0 Challenges for Data Collection

The challenges of collecting face-to-face interview and survey data in a correctional centre and within remote Indigenous Australian communities are unique, with considerable safety, cultural and language barriers to consider. The purpose of this section is to describe some key elements and challenges that must be considered when conducting research in these settings.

7.0.1 Collaboration with Indigenous Research Staff

Collaborative efforts between Indigenous and non-Indigenous research staff were a crucial component of the research approach. Indigenous research staff participated primarily in the study method and design process of both the interview and survey components of the project. Invaluable advice on culturally appropriate research methods for Indigenous Australian men were provided, ensuring the study was appropriate and culturally sensitive towards all participants, including those who may not have English as a first, or even second, language.

7.0.2 Practicalities of Conducting Research in this Setting

LGCC Research

To visit the prison to conduct this study, various procedures were required to have been completed prior to the first data collection session. These included criminal history checks and custodial awareness training at the centre for researchers. Upon arrival to the centre, biometric (fingerprint identification) checks were conducted, and any goods that were being brought in to the centre were scanned at the security checkpoint. Depending on staffing and availability, the MRA escorted researchers to the residential accommodation area. At other times, open access passes were provided to allow researchers to move through the centre unescorted. Personal duress alarms were provided to researchers to be worn at all times and activated if necessary. The safety and security of research staff was of the utmost priority during attendance at the correctional centre.

When researchers were conducting data collection within the residential accommodation area, correctional officers were present outside the room. On some occasions, the MRA would attend data collection sessions to assist prisoners who may have felt uncomfortable or who required extra support in completing the interview or survey. Data collection was also dependant on the availability of the prospective participants on the day. On various occasions, one or more participants were unable to complete either the interview or surveys due to disciplinary actions against them, being unavailable due to changes in their work schedules, or deciding to refrain from participating. The MRA was very accommodating and attempted to recruit further participants when these events occurred.

It was also common to experience situations of lock-down within the centre, whereby all prisoners were placed back into their cells and were unavailable for interview or survey participation. During these times, data collection was postponed to a future date, and the research staff were escorted from the centre. The MRA was always willing to accommodate the researchers where possible, however flexibility on the researchers' part was imperative for the success of the data collection process.

7.0.3 Research in Indigenous Communities

Conducting research within regional and remote Indigenous communities was an integral part of the data collection process. Visiting selected Indigenous communities was only possible with prior arrangement and local council permission, ensuring a community representative was available to assist with introductions and referrals for interviews and surveys. This was achieved via networking and contacting local associates within the communities, who provided introductions to key participants.

It was also challenging at times to locate participants who had agreed to meet with the researchers, as they may have left the community for some reason or decided not to participate. Researchers remained flexible to last minute changes, and mindful of the rights of participants, therefore if a participant was not able to be located, where possible alternate participants were recruited with assistance from the community representative.

Sorry Business

A very important consideration that researchers must make when conducting research within Indigenous communities, and with Indigenous Australian people, is that of *Sorry Business*. This is a period of cultural practices and protocols associated with death, with the most common

ceremonies conducted around the bereavement and funeral for a deceased person. In some Indigenous Australian communities, prohibitions include not conducting activities, events, meetings or consultations during the observance of Sorry Business. These prohibitions last for various periods of time and must be observed and respected by all those working with Aboriginal organisations and communities (Secretariat of National Aboriginal and Islander Child Care, 2018). As a visitor to Indigenous communities to conduct research, it was vital to confirm prior to travelling to the community, whether Sorry Business protocols were, or would be, observed or not by community members during the proposed time of the visit for data collection.

7.0.4 Weather Events and Access to Remote Locations

Weather conditions in North Queensland were also a major consideration when planning data collection, both at the prison and throughout community areas. During the *wet season* (November to May) in North Queensland, heavy monsoonal rain, coupled with even heavier storms associated with tropical cyclones, cause extensive flooding in many parts of the region. Rural and remote communities and towns, and many regional centres are intermittently cut off during the wet season, with some experiencing total isolation for long periods of time. While main highways are sealed, they are often low lying and easily cut off by flooding, and many minor roads are unsealed and may be washed out completely.

In the event of delays due to such weather conditions, researchers were forced to cancel data collection and wait until the situation had improved. At one point, researchers were at the prison conducting interviews when a cyclone warning was issued, therefore LGCC was placed into lock down, research activities were cancelled, and researchers returned to Cairns immediately to ensure the safety of all concerned.

7.1 Overall Discussion

As described in the introduction to this thesis (Chapter 1), rates of violence and incarceration in the North Queensland region are incredibly high for Australian men. Of even more concern are the rates for Indigenous Australian men in this region, which are some of the highest in the country. There is little empirical evidence for this population regarding the risk and protective factors towards both violent behaviour and incarceration, therefore this study was developed to explore these factors. This overall discussion provides a summary of the results of each component of the project and summarises how these findings integrate into the EST framework.

Bronfenbrenner's EST is useful to explore and attempt to explain how different levels, or systems, interact and influence how the multitude of risk and protective factors underpin childhood development (as shown in Figure 14). These systems include the individual, microsystem, mesosystem, exosystem, macrosystem, and chronosystem. The findings of each of the components of the current study show that a variety of different factors within these systems are significant in both increasing the risk of, and protecting men from perpetrating, violent behaviour and becoming incarcerated. A summary of each component of the project will now be provided, beginning with Phase 1, the qualitative study.

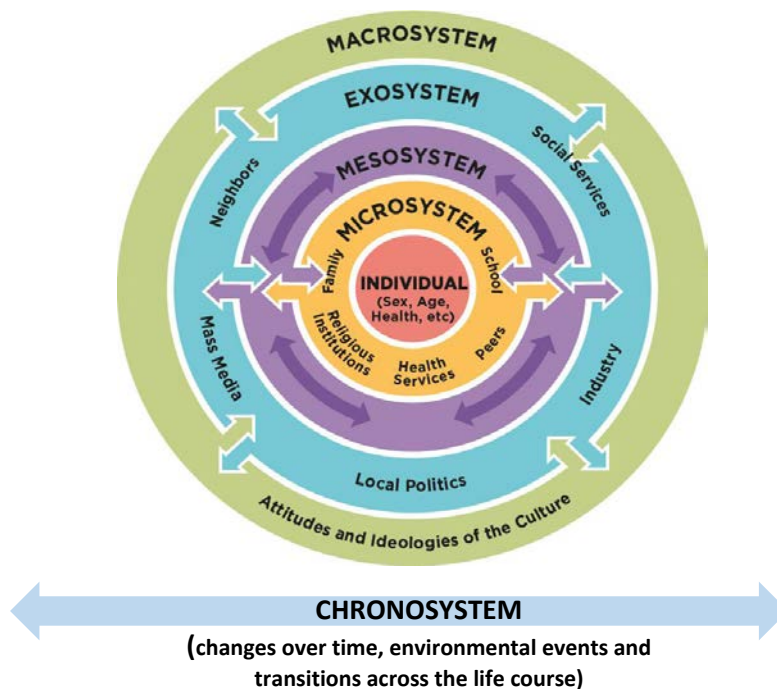


Figure 14. Visual representation of the five interactive systems of Bronfenbrenner's ecological systems theory (EST)

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7.1.1. Importance of the Current Study in this Geographical Region

As outlined earlier (sections 1.0.1, 3.0.4 and Table 2), key differences exist for people in North and Far North of Queensland, compared with both Queensland and Australia, for many socio-economic and other indicators that may lead to violent behaviour and incarceration. In summary:

- Many more Indigenous Australians reside in North and Far North Queensland (up to 53.6%), compared with Queensland (4.0%) and Australia (2.8%) (QGSO 2016, 2018);
- Around 68.4% of people in Far North Queensland live in Very Remote areas (RA5) compared with the Queensland rate of 1.1% (QGSO 2016, 2018);
- The majority (62.9%) of Far North Queensland and a quarter (24.4%) of North Queensland's residents lie within the most disadvantaged SES quintile for Australia (QGSO 2016, 2018);
- Median household incomes are much lower in Far North Queensland and North Queensland compared to the Australian rate (QGSO 2016, 2018);
- Unemployment in Far North Queensland was over 3 times higher than for Australia as a whole, according to 2018 figures (QGSO 2016, 2018);
- The completion rate for Year 11 or 12 was 10 to 15% lower for Far North Queensland compared with Queensland and Australia (QGSO 2016, 2018);
- As of 2016, Indigenous people in Queensland and Australia were incarcerated at rates 10 to 15 times higher compared with non-Indigenous Australians (ABS, 2015, 2016c; AIC, 2018).
- Up to 71% of prison inmates in Far North Queensland identify as Indigenous Australian at any one time (QCS, 2015);
- Rates of violence (offence against person) in 2017 were extremely high in Far North Queensland in 2017, at 16 times the rate for Queensland and Australia, and 9 times the rate for North Queensland (AIC, 2018).

Evidence such as this that suggests that there are many disadvantages and challenges in these regions of Queensland that the rest of the state and country may not experience. These differences likely have a direct effect on the kinds of risk and protective factors towards both violent behaviour and incarceration that may be important for this population, and distinct from factors for people in other areas of Australia. Due to the lack of research conducted in these

regional and remote areas in relation to risk and protective factors for violent behaviour and incarceration, the current study aimed to explore these factors and identify similarities and differences for Indigenous and non-Indigenous Australian people.

7.1.2 Phase 1: Qualitative Study of Risk and Protective Factors for Violence and Incarceration

The qualitative stage of the study revealed various themes, or categories of factors, that the participants believed were instrumental in either increasing or reducing the risk of men from North Queensland perpetrating violence and becoming incarcerated. A comprehensive discussion of the top ten factors in each category is included in Chapter 4, therefore only the five most frequently mentioned themes will be discussed here.

Risk Factors

Adverse family and childhood events and experiences were the most frequently mentioned type of risk factor overall. These factors, categorised as microsystem factors within the EST, included parents being negative role models, fathers being absent from the home, having a family member in jail, and conflict within the family. Supporting these results, family conflict and having separated and/or divorced parents during childhood have been previously associated with violence and incarceration for Indigenous and non-Indigenous men (Hemphill et al., 2009; Kenny & Lennings, 2007a). Personal attributes, including self-belief, self-identity, values and morals, anger, jealousy, and respect for self and others, were the second most important category of risk factor overall. These are all considered individual factors within the EST system, as they are direct personal influences such as attitudes, skills, and personal characteristics. Support has been found for the role of certain personality traits in the perpetration of violence, including jealousy within a remote Indigenous community (Shore & Spicer, 2004). Factors identified in international research that have been found to increase the risk of young people becoming violent include having a low IQ, poor behavioural control, social cognitive or information processing ability deficits, high emotional distress, a history of treatment for emotional problems, and antisocial beliefs and attitudes (Centres for Disease Control and Prevention [CDCP], 2016).

The third most commonly mentioned category of risk factors was socio-economic circumstances, including welfare dependency, social disadvantage, poor economic environment, and lack of employment. Within the EST, these factors may be at the individual, microsystem and exosystem levels. The exosystem includes those factors that affect the child's development, however they are not in their immediate context. For example, a parent losing their job, or a lack

of employment in the area, leading to economic disadvantage and poverty. These findings are supported by evidence, for example, the risk of violent behaviour is increased for young Australian men when they were raised with entrenched poverty (Hemphill et al., 2009), while social disadvantage increased the risk of violent behaviour for Indigenous Australian men according to Shore and Spicer (2004).

Overall, violence (witnessing and previous perpetration of violence) was the fourth most important type of risk factor. Included in this category was violence, including previous violent behaviour, witnessing violence, and domestic and family violence experienced within the family. While this category fits within the individual system of EST, it is also situated within the microsystem, where family violence may have been experienced and therefore contribute to future perpetration of violent (learnt) behaviour by the child. Additionally, these are factors that continue across time (the chronosystem) where by the individual's past experience of violence may influence their future behaviour. Previous violence has been shown to strongly predict future violence with Australian youth (Hemphill et al., 2009), while witnessing violence and a history of family and domestic violence are also known risk factors for violent behaviour (Anda et al., 2006; Costa et al., 2015).

Following violence related factors, the next most frequent risk factors mentioned were negative peer group and social factors. As microsystem factors, these are direct influences on an individuals' development, including friends, social groups, family and school. These factors were important to both groups of participants, but more so for Indigenous Australians. These results are consistent with previous research internationally and in Australia. Association with delinquent peers, involvement in gangs, and social rejection by peers were found to increase the risk of violent behaviour for youth in international research (CDCP, 2016), while associating with violent peers increased the risk of violent behaviour for young Australian males (Hemphill et al., 2009), and Indigenous Australians (Adams et al., 2017). According to Adams et al., the erosion of social and kinship structures, which are key to spiritual wellbeing for Indigenous people, contributes significantly to violence in many Indigenous Australian communities.

Protective Factors

Deemed the most important protective factor theme overall, the importance of having good role models and mentors during childhood cannot be overlooked. This importance is highlighted for Indigenous young men by Adams et al. (2017), who emphasise that if the many strong, resilient Indigenous Australian men were supported to lead other Indigenous men and boys, and reconnect them to culture and tradition, this would play a central role in reducing

violence in Indigenous Australian communities, particularly towards Indigenous women. Ample research also shows the importance of positive role models for non-Indigenous men in reducing violent behaviour and incarceration (Akers, 2010; Burgess & Akers, 1966; Hirschi, 1969; Topalli et al., 2012), therefore this is an area that requires much more attention if violent behaviour and incarceration rates are to be reduced in North Queensland.

The second and fourth most common protective themes respectively were personal attributes and coping skills, including self-belief, self-identity, shame, values and morals, communication skills, and facing problems. These factors are all included at the individual level of the EST, as they are the core values, attitudes and personality traits of the individual across their lifespan. There are also cultural attitudes involved in an individual's personality and attitudes, therefore these factors may also be situated within the macrosystem, whereby individuals of certain culture and heritage share a common identity and values. Consistent with the perceptions and experiences of the interview participants in the current study, Australian research suggests that certain personal and emotional states may offer protection against the perpetration of violent behaviour. For example, shame acted to regulate and reduce alcohol-related violence for Indigenous men (Shore & Spicer, 2004), while the ability to control emotions, and having a secure bond with their mother reduced future violent behaviour for male Australian high school students (Hemphill et al., 2009). Supporting the individual during childhood to enhance these inner attributes would certainly assist to reduce the likelihood of involvement in violent behaviour and the criminal justice system as adults. In fact, activities surrounding personal healing have been suggested by male Elders in a remote Indigenous Australian community to reduce violence perpetrated by Indigenous men and boys (Adams et al., 2017).

Family and childhood factors were considered very important, at number three overall and number one for incarcerated participants. Included in this theme was having parents as positive role models, parents having high expectations for their children, good child-raising skills, and providing discipline (without abuse). Within the EST microsystem, the family is one of the most influential settings while children are developing, therefore it is not surprising that these types of factors were deemed so important by many participants. Previous research confirms the protective influence of a healthy family environment while growing up. For example, having had a stable and loving upbringing (Resnick et al., 1997), positive childhood emotions (Fergus & Zimmerman, 2005; Hemphill et al., 2009; Izard, 2002; Polan et al., 2013) and a secure attachment with their mother (Hemphill et al., 2009) were all shown to reduce the likelihood of men engaging in violent behaviour.

Furthermore, the importance of socio-economic factors, including employment opportunities, positive economic and social environments within the community or neighbourhood, and adequate housing cannot be underestimated. Socio economic factors were considered the fifth most critical protective theme by participants overall. These factors are situated within both the microsystem (neighbourhood environment) and the macrosystem (socioeconomic status, cultural values) within EST. Various socio-economic factors have been shown to reduce the risk of violent behaviour and incarceration for people in both Australia and overseas. In a study with North American youth, good quality housing was found to protect young people from the perpetration of violent behaviour (Joliffe, Farrington, Loeber, & Pardini, 2016). Steady employment, stable housing and availability of services within the community (social, recreational, cultural) have also been identified as protective against crime and violent behaviour for Canadian youth (Public Safety Canada, 2015). Employment was also found to lower the risk of violent behaviour and incarceration for Indigenous Australians (Weatherburn et al., 2006; Weatherburn, 2008). Furthermore, pre-employment programs for Indigenous men have been recommended as one strategy to help reduce violence perpetrated by men and boys within a remote Indigenous community in the Northern Territory (Adams et al., 2017).

Trauma Leading to Violent Behaviour and Incarceration

During analysis of the qualitative data, an important and compelling trajectory was identified for eleven of the incarcerated participants, of both Indigenous and non-Indigenous Australian heritage. This included the occurrence of one-off or ongoing serious trauma as a child or adolescent; a lack of support or coping skills for the trauma; substance abuse to mask the painful effects of the trauma; a 'brain snap', or uncontrolled, impulsive act of violence; resulting in incarceration. The types of trauma described by the inmates included sexual abuse, death of close family members, witnessing or experiencing violence, and serious bullying during childhood. Indeed, there is a large body of evidence that recognises the association between early trauma, future violent behaviour and incarceration (Dierkhising et al., 2013; Ford et al., 2012). It is also acknowledged, that extreme childhood trauma increases the risk of serious mental health issues for the victim (Ford et al., 2012). These included depression and anxiety, risk-taking behaviours, substance abuse, oppositional defiant disorder and post-traumatic stress disorder. Mental health issues resulting from the trauma were commonly mentioned by the participants, albeit often self-diagnosed. For example, one inmate referred to his own suffering as 'post-traumatic stress' and acknowledged the effect this had on his life. Indeed, mental health problems, including post-traumatic stress disorder are prevalent in young inmates according to Dierkhising et al. (2013). Mental health issues experienced by victims of childhood trauma often

lead to reactive aggression and violent behaviour (Ford et al., 2012). Certainly, uncontrollable anger, left untreated, was one of the major contributing factors for violent behaviour for participants in the current study.

Following their childhood trauma, none of the inmates interviewed were provided with any kind of support or counselling to cope with their experiences, thus developing harmful coping strategies instead. The lack of support or coping skills inevitably led them to engage in self-destructive behaviour, including substance abuse, which is consistent with evidence regarding the effects of untreated trauma and unacknowledged painful feelings (Dierkhising et al., 2013; Ford et al., 2012; Walsh, 2007). Indeed, a long history of substance abuse, an individual factor in EST, was reported by these inmates, who were all under the influence of alcohol or illicit drugs at the time of their violent offence leading to incarceration. Participants used both drugs and alcohol to seek comfort and mask the pain of their past. As one inmate described when using heroin, it “pulls a warm blanket over you.” The self-medication hypothesis may explain this type of destructive coping (Khantzian, 1997; Lee et al., 2015). When individuals become overwhelmed with pain or numb to their emotions, they often turn to drugs and alcohol to allow them to escape from, or cope with these intense, but often suppressed feelings (Khantzian, 1997).

From early childhood, or the stage at which the trauma occurred, and throughout the individual’s lifetime, consistent with the chronosystem in EST, the effects of untreated trauma, mental health issues, and drug and alcohol abuse invariably escalated. These factors precipitated the violent crimes for the participants in the current study, and ultimately led to their incarceration. Each of the inmates described how their uncontrollable anger and substance use, which are considered characteristics of one’s personality, therefore individual factors within the EST, directly contributed to their impulsive act of extreme violence. Certainly, highly impulsive offenders, particularly if they are intoxicated at the time of their offence, have been found to act without forethought, with the immediate objective being to reduce or eliminate the seemingly overwhelming threat (Declercq et al., 2012). As one participant in the current study described, “a trigger point for me [for violence] is when someone...threatens me. Gets in my space...”

A particularly interesting observation of the progression from trauma to incarceration was the commonality in this pathway for both Indigenous and non-Indigenous inmates. This indicates that these types of risk factors permeate through the broader influences of culture, socio-economics, family upbringing, and individual personality and characteristics. While there are proponents for the existence of unique risk and protective factors towards violence and incarceration for Indigenous compared with non-Indigenous Australians (Langton, 1988; Zubrick & Robson, 2003), the experiences of participants in the current study were similar regardless of

cultural heritage. This demonstrates the cross-cultural nature across population groups of certain risk and protective factors towards violent behaviour and incarceration.

Cross-cultural, or generalist, risk factors have been identified in previous research for various adverse behaviours. For example, cross-cultural research sponsored by the United Nations identified universal risk factors for domestic violence against women, including low socioeconomic status, excessive alcohol use and cultural attitudes (Fischbach & Herbert, 1997; World Health Organization, 1997). Additionally, alcohol and drugs, mental health, housing, and financial issues, along with previous exposure to domestic violence were found to be risk factors for maltreatment to children across Chinese, Lebanese, Pacific Island, Vietnamese, Aboriginal (Australian) and Anglo-Saxon populations (Sawrikar, 2017). A study by Brook, Brook, Arencibia-Mireles, Richter, and Whiteman (2001) also demonstrated remarkable consistency in the risk and protective factors, however this was for marijuana use rather than violence, across three samples of people from different ethnic and cultural backgrounds. These findings attest to the robust nature of many predictors, and their generalisability across ethnic and cultural backgrounds (Brook et al., 2001). As Fischbach and Herbert (1997) and World Health Organization (1997) highlight, even though types and circumstances of abuse and violence may vary across cultures, identifying universal contexts is also crucial for research and for designing strategies for intervention and prevention.

7.1.3 Phase 2: Risk and Protective Factors for Violent Behaviour

Phase 2 of the research project comprised a survey that was completed by 85 male participants, including Indigenous and non-Indigenous Australians and prison inmates. Risk and protective factors for violent behaviour, along with differences in factors for Indigenous compared with non-Indigenous participants, were explored.

Risk Factors for Violent Behaviour

Overall, the frequent cannabis use had the strongest association with violent behaviour for the participants in the current study. Considered an addictive behaviour, cannabis use is situated within the individual level of the EST. Participants who reported using cannabis on a regular basis had almost five times higher the risk of perpetrating violent behaviour compared with infrequent and non-users of cannabis. The association between violent behaviour and cannabis-induced psychosis and paranoia, which can be precursors to violent behaviour, has been demonstrated in general populations (Hall et al., 2001; Moss & Tarter, 1993). Furthermore, irritability and aggression, also antecedents to the perpetration of violent behaviour, are

identified symptoms of cannabis withdrawal syndrome (Budney & Hughes, 2006; Coffey et al., 2002). Further, a notable finding of the Northern Territory Government's *Little Children are Sacred Report* into violence and sexual abuse against women and children was that violence was a common occurrence in areas of northern Australia when cannabis was in short supply (Wild & Anderson, 2007).

Factors at the macrosystem (culture, values and identity), and exosystem levels (local politics, social services) of the EST, while out of the individual's direct environment, may still have a great influence on their development and behaviour. For example, prolific cannabis use is documented in many areas where government policies have restricted the sale and possession of alcohol by implementing AMPs (Bohanna & Clough, 2012; Lee et al., 2015). Considering that many of the participants in the current study usually reside in these areas, they were likely to have had higher rates of cannabis use than reported in other Australian populations. Adding to the risk, people in these areas may also be vulnerable to increased levels of violence due to social and historical trauma and tensions (Lee et al., 2015; Select Committee on Substance Abuse in the Community, 2007).

Unexpected findings. A very surprising and noteworthy finding of the current study was that, following multivariate analysis, frequent alcohol use was not significantly associated with violent behaviour for the sample. The use and abuse of alcohol and the association with violent behaviour is evidenced by abundant research both overseas and in Australia, for both indigenous and non-indigenous people (Ezzati et al., 2006; Giancola et al., 2003; Kenny & Lennings, 2007a; Public Health Association of Australia, 2014; Rossow & Bye, 2013). This finding of the current study contrasts the evidence and understandings that alcohol abuse is the core problem leading to violent behaviour within Indigenous Australian communities (Pearson, 2001; Wundersitz, 2010). As explained by EST there is no single cause of violent behaviour (Bronfenbrenner, 1979, 1994; Zubrick, Silburn, Burton, & Blair, 2000), therefore for this group of participants, besides alcohol, other more salient factors may in fact influence the perpetration of violence. One factor may be substitution of alcohol with cannabis, due to AMPs being in place in many North Queensland areas (Bohanna & Clough, 2012). Interestingly, more participants from these areas had used alcohol (60%) compared with cannabis (40%) in their lifetime, therefore the underlying mechanisms of this cannabis-violence association require further investigation.

Protective Factors for Violent Behaviour

The microsystem factor of education, to higher level including TAFE, trade or tertiary education, was the only variable that reduced the likelihood of participants having perpetrated

violence towards others. As previously mentioned, positive school experiences, commitment to school and higher educational attainment have been shown to reduce the risk of future violence in many populations (Hawkins et al., 1999; MacKenzie, 2002 Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011), including for Australian youth (Chapman et al., 2014; Hemphill et al., 2009), and Indigenous Australians (Weatherburn et al., 2006, 2008). Again, this finding highlights the importance of providing young men from North Queensland with opportunities to pursue education at a higher level, including vocational courses such as TAFE and trade school.

Differences in Factors for Indigenous and Non-Indigenous Participants

When data for Indigenous and non-Indigenous participants was analysed separately, frequent alcohol use and frequent cannabis use, both individual factors within EST, were found to be significantly associated with violent behaviour for non-Indigenous but not for Indigenous participants. The significant association for non-Indigenous participants is not surprising, as alcohol is well established as a risk factor towards violence in Australia and overseas (Boles & Miotto, 2003; Day et al., 2012; Jayaraj et al., 2012). This outcome however was unanticipated for the Indigenous Australian participants, particularly when considering the high levels of alcohol and cannabis use and associated violence recorded in some remote Indigenous communities of North Queensland (Bohanna & Clough, 2012; Clough, 2005; Clough et al., 2014; Lee et al., 2009). When also considering the previous multivariate analysis in the current study, whereby alcohol was not significantly associated with violent behaviour for the sample, taken together, these findings support the theory that alcohol is not necessarily the cause of the high rates of violence in some Indigenous communities in North Queensland, with other, unknown underlying factors involved.

7.1.4 Phase 2: Risk and Protective Factors for Incarceration

Risk Factors for Incarceration

Religion may be considered an individual, microsystem and macrosystem factor, therefore the relationship between religion and incarceration is complex. Participants who held religious beliefs were almost 14 times more likely to be or have been incarcerated than non-religious participants. This finding is supported by previous international research, showing religious beliefs did not prevent criminal behaviour, or the fear of being incarcerated. In fact, offenders used religion to justify serious criminal behaviour (Topalli et al., 2012). To explain these findings, participants with existing religious beliefs may have strengthened their faith during their incarceration. This seems unlikely, however, as only 4 of the total 85 participants became

religious during adulthood, while many more ($n = 26$) grew up with religious beliefs. Religion is also considered to be protective against criminal behaviour and incarceration (Akers, 2010; Burgess & Akers, 1966; Hirschi, 1969; Topalli et al., 2012), therefore further investigation into the association between religion and incarceration for men in North Queensland is required, as the reasons for this significant association are unclear.

Frequent cannabis users were almost six times more likely to be incarcerated compared with non-users of cannabis in the current study. Substance use was also a major risk factor for participants in the related study regarding violent behaviour, and the qualitative investigation, whereby prison inmates identified cannabis as one of the substances contributing to their violent behaviour and subsequent incarceration (Honorato et al., 2016). Further, cannabis dependence was significantly correlated with re-incarceration for Indigenous male and female youth in juvenile detention in New South Wales (Indig et al., 2014). While not named as a risk factor as such, cannabis use has also been shown to be a predecessor to prison for both Indigenous and non-Indigenous Australians (Payne et al., 2013; Rogerson et al., 2014). As a strong individual factor within the EST, cannabis use is prolific in many remote North Queensland Indigenous communities (Bohanna & Clough, 2012; Lee et al., 2009), where many participants in the current study grew up and usually live. The association with cannabis, rather than causal however, may simply be a function of the higher number of cannabis users being incarcerated for a range of violent crimes. Further investigation into the cannabis-incarceration association is recommended to provide a better understanding of the underlying mechanisms of this relationship.

Unexpected findings. Ample research shows that alcohol misuse, an individual factor in EST, is associated with a higher risk of incarceration for both Indigenous and non-Indigenous Australians (ANCD, 2013; RCIADIC, 1992; Tarabah et al., 2015; Weatherburn et al., 2006, 2008). Unexpectedly, and as for the violence findings as discussed previously, the predictive effect of alcohol towards incarceration disappeared following multivariate analysis. It is evident that alcohol is not the main contributing factor towards the risk of incarceration for Indigenous participants. One option may be a decrease in alcohol-related crime, due to AMPs being in place (Bohanna & Clough, 2012; Lee et al., 2009), however, there is little evidence that this is the case in North Queensland (Clough & Bird, 2015; Clough et al., 2014). Therefore, the relationship between alcohol use and incarceration requires further investigation, due to the large evidence base of research implicating alcohol in violent behaviour and incarceration, and the contrasting findings in the current study.

Protective Factors Towards Incarceration

Three variables were found to reduce the risk of incarceration for Australian men in the current study, including education, relationship status, and positive childhood experiences. Education to either Year 10 to 12 level, or to TAFE/trade/tertiary level, was associated with a decrease in the likelihood of incarceration. This finding indicated a trend whereby increased levels of education led to increasing protective effects towards the risk of incarceration. Similar to the findings for education and violent behaviour, previous studies have also shown the protective effect of higher education levels towards incarceration for both Indigenous Australians (Weatherburn et al., 2006), and in overseas populations (Barnert et al., 2015; MacKenzie, 2002; Trembley & LeMarquand, 2001 cited in Corrado & Cohen, 2011).

The second variable that was found to be protective against incarceration was being in a relationship, which is situated within the microsystem of the EST. Relationships with others form the basis of the microsystem, whereby the influence of other people such as family and friends, has a significant influence on an individual's wellbeing and development. Supporting this, marriage has been shown to protect against recidivism (Howser et al., 1983; Kemp et al., 1992; Lanier, 1993; Urbaniok et al., 2007), and facilitate a successful transition from prison to home (Hairston, 2001). The protective effects of being in a stable relationship may be due to improved day-to-day functioning, mental and physical health, life satisfaction and opportunities [for the future] (Amato & Booth, 1997; Nock, 1998; Waite & Gallagher, 2000; Wilcox et al., 2005).

Finally, participants with higher level of positive childhood experiences had a lower chance of future incarceration compared with those with lower levels of positive childhood experiences. These types of factors are primarily situated within the microsystem, as this is where the major influence of a child's family comes into effect. Participants who had, for example, supportive parents, family activities, parents who lived together, and rules and routines while growing up were 21% less likely to be incarcerated than those with lower levels of such experiences. The link between positive childhood factors and success later in life is well established (Haveman et al., 1991). Positive experiences have also been shown to buffer against negative outcomes for highly aggressive children (Kokko & Pulkkinen, 2000; Kokko et al., 2006), and reduce later criminality leading to incarceration (Hamalainen & Pulkkinen, 1996).

Differences in Factors for Indigenous and Non-Indigenous Participants

Several variables were found to be significantly associated with incarceration for non-Indigenous but not Indigenous participants, however none of the factors were unique to the Indigenous participants. Cross tabulations revealed cannabis use and alcohol use to be

significantly associated with incarceration for non-Indigenous but not for Indigenous participants. Despite these findings, and as explained previously, evidence shows that both cannabis (Payne et al., 2013), and alcohol use (ANCD, 2013; Tarabah et al., 2015), are associated with incarceration for both Indigenous and non-Indigenous Australian men. Therefore, the reasons for the lack of an association between alcohol use, cannabis use and incarceration for Indigenous participants in the current study are not well understood. As Memmott et al. (2001) explain, more influential variables likely affect this association, including the higher rates of crime, violence and incarceration in general in many Indigenous communities.

Relationship status, an individual and microsystem variable, was associated with incarceration for non-Indigenous but not for Indigenous men in the current study. The effects of a stable relationship, including improved health and life satisfaction are thought to underlie this association (Amato & Booth, 1997; Nock, 1998; Waite & Gallagher, 2000; Wilcox et al., 2005). As for the lack of association between relationships and incarceration for Indigenous men, it is likely that differences in the way that Indigenous people view their relationships and family compared with non-Indigenous Australians, have influenced these findings (Zubrick et al., 2010). Family and relationship structures are much more complex, and quite different, in indigenous compared with non-indigenous societies. This includes the way in which family functioning, relationships and parenting styles are managed (Kolar & Soriano, 2000; Tam et al., 2017). In indigenous society, for example a child will likely have multiple female caregivers, due to the collective responsibility the extended family share for bringing up children (Tam et al., 2017; Walker & Shepherd, 2008). Due to fundamental differences such as these, kinship and community, perhaps more so than personal relationships with one significant other, are likely to be more influential in protecting Indigenous Australian men from negative outcomes including incarceration. Kinship and community connections play a critical role in the lives and identities of indigenous people and can be a source of strength and wellbeing (Zubrick et al., 2010).

7.1.5 Alignment of Study Findings with Previous Research

When considering the results of the literature review, the qualitative study and the quantitative study together, results for the target sample of men from North and Far North Queensland are generally consistent with previous Australian and international research, with some exceptions and unexpected findings. This section discusses each of the factors that were found to be significantly associated with violent behaviour and/or incarceration in the

quantitative studies, and their alignment with the qualitative study, literature review, and other Australian and international research.

Risk Factors

Substance Use

Cannabis use. Substance (alcohol and illicit drugs) was frequently mentioned by all participant groups (Indigenous, non-Indigenous, Incarcerated and non-Incarcerated) as a risk factor for violent behaviour and incarceration during the interview stage of the project. The results of the literature review also support the association between illicit drug use and violent behaviour (McKetin, et al, 2014, Putt et al. 2005). Quantitative analysis revealed frequent cannabis use to be significantly associated with violent behaviour, and with incarceration. When analysed separately, however, an association remained for the non-Indigenous participants but surprisingly not for the Indigenous participants. This is unexpected as cannabis use has been found to be associated with violent behaviour for Indigenous Australians (Hall et al, 2001), and non-Indigenous Australians (Sherman, McCrae-Clark, 2016; Moss & Tarter, 1993). International research also supports the association between illicit drugs including cannabis and violent behaviour (for example, Atkinson et al. 2009; Brock et al., 2003; Budney & Hughes, 2006).

Alcohol use. Results of the quantitative phase of the project also align with the qualitative study regarding alcohol use. Frequent alcohol use was significantly associated with violence when analysed for participants overall. When analysed for both Indigenous and non-Indigenous participants separately, alcohol use was associated with violent behaviour for the non-indigenous participants only, which was also an unexpected result. Despite these mixed findings, the association between alcohol use and violent behaviour is well recognised in Australian literature (Scholes Balog et al., 2013; Hemphill et al., 2009; McKetin et al., 2014); including for Indigenous Australians (Shore & Spicer, 2004; Kenny & Lennings, 2007a; Putt et al, 2005). Internationally alcohol has repeatedly been associated with both violent behaviour (Wolf et al., 2014; Hutchison et al., 1998; Verma & Chambers, 2015; Boles & Miotto, 2003; Day et al., 2012), and with a higher risk of incarceration in international populations (Barker et al. 2015).

Negative Childhood Emotions and Events

As shown in the quantitative study, negative childhood emotions and events were significantly associated with violent behaviour and incarceration for men from North and Far North Queensland. These findings reflected the results of both the qualitative study and the literature review. Negative childhood emotions, including personality attributes and coping skills; and negative events including trauma and adverse family and childhood factors, were found to

be commonly mentioned risk factors for violent behaviour and incarceration in the qualitative study. The results of the literature review revealed jealousy (Shore and Spicer, 2004) to be a risk factor for violent behaviour for Indigenous and non-Indigenous Australian men. Other Australian (Senior et al., 2016) and international research (Langhinrichsen-Robling et al., 2012; Sesar et al., 2012) has demonstrated the adverse effects that negative childhood factors, including emotions such as jealousy, can have towards future violent behaviour. In addition, childhood trauma has also been associated with violent behaviour for Indigenous Australians (for example, Adams, et al., 2017); and for incarceration, as shown in international research (Carlson & Shafer, 2010; Spatz Widom & Wilson, 2015; Walsh, 2007; Sarchiapone et al., 2009).

Religion

While not in the top 10 risk factors in the qualitative study, nor recognised as a risk factor for Australian men in the literature review, religious beliefs were found to be significantly associated with both violent behaviour and incarceration in the quantitative analysis, including for both indigenous and non-indigenous participants when analysed separately. Internationally, religion has been recognised as a risk factor for crime and violent offending (Topalli et al., 2012; Brewerton, 1994; Walsh et al., 2002), and for incarceration (Topalli et al., 2012; Hiday and Moloney, 2014). Conversely, religion has also previously been found to be a protective factor against criminal activity, due to shared beliefs, commitment, principles, and behaviour inconsistent with law breaking (Akers, 2010; Burgess & Akers, 1966; Hirschi, 1969; Topalli et al., 2012). The result that religion was strongly associated with both violence and incarceration was an unexpected result, however, this factor also did not come out strongly in either the qualitative interviews or the literature review.

Protective Factors

Education

The findings of the literature review revealed Hemphill et al. (2009) found education factors to be protective against future violent behaviour for Australian school students. The data from the qualitative interviews also revealed education variables as important protective influences for both violent behaviour and incarceration, for all groups of participants. Education was also revealed to be significantly associated with a lower likelihood of violent behaviour in the quantitative analysis, particularly education to TAFE, trade certificate, or tertiary level. This finding was for Indigenous and non-Indigenous participants alike. Previous research supports these findings in education for Australian populations (Chapman et al., 2014) and internationally (Barnert et al., 2015; Corrado & Cohen, 2011; Hawkins et al., 1999; Lochner & Moretti, 2001).

Comparably, education to Year 10 – 12; and to TAFE, trade and tertiary level were found to be significantly associated with a reduced likelihood of incarceration in the quantitative analysis. This was consistent for both Indigenous and non-Indigenous participants alike. While evidence was not found in the literature review for this, other Australian research reveals the protective nature of education against incarceration for Australian men, including Indigenous Australian men (AIC, 2015a; Weatherburn, et al., 2006). Internationally, education is also seen to protect individuals from the risk of involvement in the criminal justice system, and ultimately form incarceration (Ahrens et al., 2011; Lochner & Moretti, et al., 2001; Mohammed et al., 2015; Spencer et al., 2010). Overall, the result that a higher level of education to TAFE, trade or tertiary level was associated with a reduced likelihood of both violent behaviour and incarceration was a novel result in the current study.

Relationship Status

The qualitative interview data revealed that family and childhood factors, including having parents together, and a functional family life were important to guard against the risk of involvement in violent behaviour and incarceration as an adolescent or adult. The data from phase 2, the quantitative study, supported these findings, however the factor that was found to be significantly associated with a reduction in the risk of incarceration was relationship status (being married or in a stable relationship). However, in further analysis to compare cultural groups this protective effect was only found for non-Indigenous participants, which was not anticipated.

While the literature review did not reveal evidence to support the data from the quantitative study, it has been previously noted that there is a dearth of research in this area for men, particularly from North and Far North Queensland region. While there is a lack of evidence for the protective nature of being married or in a relationship in Australian literature, international research reveals that marriage can provide a protective effect for men against both violent behaviour and incarceration (for example Amato & Booth, 1997; Nock, 1998; Wilcox et al., 2005).

Positive Childhood Events

Positive childhood events were one of the most common type of protective themes mentioned in the qualitative phase and were also significantly associated with a reduced chance of incarceration in the quantitative phase. While secure parental attachment was identified in the literature review by Hemphill (2009) as a protective factor against future violent behaviour for Australian male school students, protective factors for incarceration were not identified. Similar

to the results in the current study, however, incarcerated youth in the United States expressed the importance of familial influences such as love and attention, discipline and control, and good role models as factors that they believed would have kept them out of jail (Barnert, et al. 2015). Other international research has also showed the protective influence of positive family events, for example Catalano & Hawkins (1996), Hawkins & Weis (2015) and Resnick et al. (1997).

Employment

There were no studies in the literature review that investigated employment (socio-economic factor) as a protective factor for either violent behaviour or incarceration. The results of the qualitative study, however, revealed that participants believed socio-economic circumstances, including employment, were important protective factors against violent behaviour and incarceration. An Australian report found that protective factors against delinquency in general, for Victorian youth, include equal socio-economic status, stable housing and steady employment (Young People's Legal Rights Centre Inc, 2017). Other studies have identified employment as protective against violent behaviour, for Indigenous Australians (Hunter, 2001; Weatherburn, 2006, 2008); and overseas populations (Sabina & Banyard, 2015; Sampson & Laub, 2003). As violent behaviour was a precursor to incarceration for many of the participants in the current study, it is logical that factors that are protective against violent behaviour may also protect certain individuals against becoming incarcerated.

7.2 Limitations

It is recognised that due to the participants' diverse background and experiences, including socio economic status, race, religion, culture, geographical location, the results of this research project cannot be generalised to all individuals or groups that are represented by the study samples. One of the main limitations of the study was that the researchers did not conduct random sampling, where by each participant is selected independently of the other members of the population, and all have an equal chance of being selected as a participant. Within the prison setting, the researchers did not have full control over selection of the participants, as inmates were initially recruited by the MRA. Due to QCS guidelines and JCU ethics requirements, the recruitment method employed was the only possible procedure available for the current study. This method ensured the ethical treatment of inmates, and the health and safety of all participants, centre staff, and researchers within a challenging setting. All of the participants in prison were sentenced for violent offences. QCS allowed access to inmates from the residential accommodation wing only, therefore limiting the sample that I had access to. I was unable to access a list of prisoners to randomly select my sample and was also limited by the number of participants who were eligible, willing to participate, and allowed to participate due to sanctions, work schedules and freedom to move about the prison. Previous studies of a similar nature within Australian juvenile detention centres have been conducted (e.g. Hando, Howard, & Zibert, 1997; Kenny & Lennings, 2007a, 2007b) however the recruitment procedures were not specified. This makes it difficult to assess the current study's consistency with recruitment methods followed in similar settings. As inmates were recruited from just one section of the correctional centre. It is possible more serious offenders may have identified other contributing factors towards their violent behaviour and incarceration.

For the community participants, snowballing recruitment was used, to ensure participants in remote areas, including remote Indigenous communities, were able to participate in the study. Due to the difficult to reach geographical areas that much of the target population reside in, there were limitations on how respondents could be reached. Further, protocols regarding who can visit Indigenous Australian communities are in place in many areas, therefore it was not possible for the researchers to attend communities with the view of recruiting study participants, as permissions to visit were required prior to any visitation. It was not possible to access a list of participants in these remote locations in order to randomly select a sample.

Both the interviews and the survey were based on self-report information, therefore recall bias may have been possible. To appear more socially acceptable to the researcher, some participants may have answered less truthfully about sensitive issues including incarceration history, violent behaviour, substance use, and childhood abuse. This seems unlikely, however, as the interview participants were all given extra time to continue telling their stories if they required, which many did. Many participants mentioned that they found the experience very beneficial, to be able to tell their stories without fear of retribution or any other reprisals, however, the author cautions that this is not a benefit to the participants in this study and was not intended to be; nor was mental health counselling provided as part of the study. Participants were able to access counsellors if they wished, and researchers provided them with the information about these services to the participants to ensure they were aware of this service. The depth and quality of the information that was given provided confidence to the researchers that participants were both accurate and as forthcoming with their personal information as they could be. Furthermore, within the prison, the MRA was present for some of the interview sessions. While the presence of the MRA may have led to some participants providing misleading information in order to appear socially acceptable to both the researcher, and the MRA, this appeared to be unlikely, as when questioned about the validity and truthfulness of the prison inmate's narratives, the MRA confirmed, to the best of her knowledge, that they were providing truthful and accurate accounts of their stories.

For the qualitative study, only a small sample of participants were interviewed ($n = 39$), however, the objective of this research was to find a small sample of very knowledgeable participants to provide an in-depth exploration of a very difficult and under-researched topic. Qualitative research of this kind requires a closely defined, homogenous group of participants for whom the research question is significant (Smith & Osborne, 2003), therefore small sample sizes are acceptable and in fact more desirable than larger samples. Further, while many inmate participants described a trajectory from trauma to incarceration during the qualitative interviews, it cannot be concluded with any certainty that any of the events depicted were the direct causes of violence and incarceration per se. While thematic saturation was reached with this sample of participants, many other possible contributing factors could have been influential in the lead up to the participants' incarceration. However, it is noteworthy that participants themselves were strongly inclined to directly attribute their violent crimes and incarceration to these traumatic events, and the associated after-effects including substance abuse and the lack of constructive coping skills.

For the quantitative study, the small sample size overall presented limitations to the way in which data could be analysed. Due to the limited time and resources available to complete the PhD, it was not possible to recruit further participants once the final analysis was complete. While recommendations for minimum sample size of at least 100 participants have been reported (Peduzzi, Concato, Kemper, Holford, Feinstein 1996; Long, 1997), the difficulties with conducting research of this kind, in hard to reach populations (correctional centres and remote/rural Indigenous communities), resulted in a smaller than ideal sample. As this was an exploratory study, this study may be used to inform future studies utilising larger samples, and over a longer time frame (such as longitudinal studies), to ensure more robust results. Another consideration is the loss of data which occurred during the analysis, due to missing information on the part of participants, further reducing the ability to extrapolate the study findings outside of the study sample.

One of the main aims was to compare results for Indigenous Australians and non-Indigenous Australians, however limited differences were detected. Due to the relatively small number of Indigenous participants, cross tabulations were conducted, instead of a more rigorous statistical analysis method. While not ideal, this method allowed a better understanding of cultural differences in risk and protective factors for both violent behaviour and incarceration. Differences may have been difficult to detect, due to the unequal proportions of Indigenous ($n = 28$) compared with non-Indigenous ($n = 41$) participants. This explanation does not seem likely, however, as the recommended rate of at least 80% of cells having a minimum of five independent observations was achieved (Pallant, 2007). Nevertheless, recruiting more Indigenous men may have addressed this limitation if further resources had been available to visit more communities in the region. It would also have been advantageous to be able to extend the data collection period, which was limited due to time constraints within the PhD candidacy period.

Another limitation that was recognised is that participants may not have disclosed relevant sensitive information, as psychological assessments administered within the prison system may be used to determine program requirements and as evidence in court. Participants may have been concerned that their responses would be used by the justice system to lengthen their sentence or jeopardise parole. While the consent form clearly stated that all responses were both anonymous and confidential, some participants may not have answered truthfully despite those reassurances. Furthermore, low literacy skills may have led to misunderstanding of items for some participants, therefore distorting the results. As the study was pilot tested with prison

and community members, along with experts and Indigenous researchers, prior to the majority of participants being interviewed or surveyed, the chance of this occurring was deemed minimal. Further, a requirement for all participants was that they have a basic understanding of English, both reading and writing. The researchers were also present within the prison to assist with any difficulties the inmates may have had understanding the survey items.

During the quantitative study, a significant association was found between religious beliefs and incarceration. The initial wording of the question regarding when the participants became religious yielded insufficient numbers to enable more rigorous statistical analysis. For this reason, a dichotomous variable was developed combining the categories (as a child/teenager, as an adult, always). As a result, it was not possible to establish whether the significant result was due to participants strengthening their faith while incarcerated. This seems unlikely, however, as only 4 of the total 85 participants became religious during adulthood, while many more ($n = 26$) grew up with religious beliefs. This information indicates that for the participants who were incarcerated, religious beliefs did come before incarceration. While the question of whether this was the case was not actually asked, the inference is that if a participant was religious from childhood, their religious beliefs were most likely in place prior to incarceration.

Another limitation was the use of single questions rather than time bounded timeframes to determine participant's use of alcohol and cannabis, for example. Originally the questions were posed asking the participants if they used alcohol/cannabis and other drugs on weekly, daily, monthly, and yearly basis. However, the numbers of participants in each category were not sufficient to enable meaningful statistical analysis. Again, categories were combined to form dichotomous variables to enable some statistical analysis to be conducted. Other drug use apart from cannabis was also recorded, however the number of users was negligible (for example for heroin, ice, speed, chroming and sniffing) therefore they were not included in the final analysis.

7.3 Recommendations for Further Research

To determine whether a factor may contribute to, or possibly cause violent behaviour and offending, the risk factor needs to be measured before the violence/offending occurs (Farrington, Loeber, & Ttofi, 2012). Therefore, prospective longitudinal studies are needed to further investigate risk and protective factors for violence and incarceration in this population more systematically. Longitudinal research, following participants through childhood to adulthood would provide a more accurate view of the trajectory to violent behaviour and incarceration, by recording childhood factors that may have been overlooked in the current study. More precise measures of cannabis and alcohol use, with validation, are required. The inclusion of younger participants from early childhood, may enable at-risk children to be identified early, and interventions developed to reduce or eliminate the chance of engagement in violent behaviour and incarceration in the future. As Reavis et al. (2013) suggest, to decrease criminal recidivism, treatment interventions must focus on the effects of early life experiences.

Future studies with a greater number of participants, including more Indigenous men and women, examining factors underlying both substance abuse and violent behaviour towards others is also recommended, to ensure important risk and protective factors for this population group are captured. Including female inmates was outside the scope of the current project, primarily due to the women's prison being in a location that was not easily accessible for the researcher. Therefore, a future study to discover risk and protective factors for females is recommended. This is especially critical due to the increasing over-representation of women, in particular Indigenous Australian women, in correctional centres not only in Queensland but Australia-wide (Stubbs, 2011). Further, larger groups of Indigenous females from the community should be recruited to ensure a more accurate representation of the North Queensland population. It is also recommended that a larger sample of Indigenous Australians, both male and female, be included to conduct formal validations of the BFI-10 amongst both community and inmate populations.

Interestingly, the current study found cannabis use, but not alcohol, to be a significant risk factor for both violence and incarceration for men from North Queensland. Historically cannabis is associated with lower rates and alcohol use with higher rates of violence. This unexpected result may be due to the increased use of cannabis by participants, particularly those who reside in areas where the sale and possession of alcohol is restricted. Due to contradictions

with previous research found in the current study, the associations between both cannabis and alcohol with violence and incarceration, warrant further investigation in this study population.

Another consideration from the current study is that head injury was not identified as a predictor of violence for the participants in the current study. This is in contrast to a body of research showing that head injury is a significant predictor of violence in offenders (Jamieson, Harrison & Berry, 2008); Indigenous and non-Indigenous people (Berry, Harrison & Ryan, 2009); and young offenders, including Indigenous Australians (Kenny & Lennings, 2007b). An outcome of this study is that further information and education is required to ensure community workers are aware and considerate of the impacts of head injury as a risk factor, when working with this vulnerable population.

7.4 Final Conclusion

Overall, frequent cannabis use displayed the strongest association with violent behaviour, with users almost five times more likely than infrequent users to have perpetrated violence. While the role that cannabis use may have in increasing violent behaviour is concerning and requires further investigation, education and early intervention to assist young people to delay or abstain from cannabis use is required. Education to TAFE, trade or tertiary level was the only protective factor that reduced the likelihood that participants had perpetrated violence towards others.

Holding religious beliefs and regular cannabis use were statistically significant contributors to incarceration. Religious participants were 14 times more likely to be incarcerated than non-religious participants. As religion has been shown previously to protect against incarceration, further research into this association is required, as underlying explanations for this finding are uncertain. Frequent cannabis users were found to have almost six times the risk of incarceration than infrequent users. This result may be due to many of the participants residing in remote areas where higher rates of cannabis use, and much higher rates of incarceration are documented, compared with other areas of Australia.

The factors that significantly reduced the likelihood of participants being incarcerated included education to TAFE, trade or tertiary level; being in a relationship; and positive childhood events. Strength-based interventions and initiatives that increase parenting skills, and improve relationships with significant others, would be valuable to men in both Indigenous and non-Indigenous communities of North Queensland. The opportunity to access education, particularly vocational and technical education leading to meaningful employment is a crucial factor that may also assist to reduce incarceration rates in many of these areas. However, in many regional and remote towns and communities of North Queensland, there are limited, if any, opportunities for further study, or for gaining employment.

When differences in significant factors for Indigenous compared with non-Indigenous participants were explored, alcohol and cannabis use were significantly associated with violence for non-Indigenous but not for Indigenous participants. Education was significantly associated with violence for both Indigenous and non-Indigenous participants. Further, alcohol use, cannabis use, and relationship status were significantly associated with incarceration for non-Indigenous but not for Indigenous participants. Religious beliefs and education levels were significantly associated with incarceration for both Indigenous and non-Indigenous participants. As shown,

when analysed separately, there were differences in significant variables for each cultural group. This highlights the need for varied, individually tailored methods of intervention, education and treatment, depending on the culture of the individual, when undertaking efforts to reduce incarceration rates for men in North Queensland.

The results of the qualitative (Phase 1) and quantitative (Phase 2) study were consistent, in that risk and protective factors for violent behaviour and incarceration were quite closely aligned across both study phases, with minor variations. The quantitative results were supported by the interview data and confirmed the views and opinions of the interviewees who had lived experience of the issues related to violence and incarceration in North Queensland. The value in asking people who are knowledgeable in such topics and have directly experienced these phenomena has been highlighted during this study. To ensure the information is an accurate reflection of the situation in the context of North Queensland, both qualitative and quantitative data provided valuable insights and added to the existing, albeit limited, empirical knowledge in this area.

During the qualitative (interview) phase of the project, the most common risk factor categories were found to be closely aligned for Indigenous, non-Indigenous, incarcerated and non-incarcerated participants. Adverse family and childhood factors were the most commonly mentioned type of risk factor according to Indigenous participants and for those who were not incarcerated, and for the entire sample overall. While the most commonly mentioned protective factors for violent behaviour and incarceration were similar for Indigenous, non-Indigenous, incarcerated and non-incarcerated participants, the importance varied slightly for each group. The importance of having good role models and mentors was highlighted as the top factor overall. Following role models, non-Indigenous participants mentioned the importance of socio-economic circumstances most often, incarcerated participants mentioned coping skills, while non-incarcerated participants mentioned family and childhood factors most frequently.

During qualitative analysis, and of considerable significance, is that a trajectory from trauma to incarceration was commonly described by both Indigenous and non-Indigenous inmates. This suggests the high rates of incarceration experienced by Indigenous men in North Queensland are not due to cultural background as such, therefore further research is required to determine what the most influential factors may be. While it is possible that higher rates of trauma are experienced in Indigenous communities contributing to the high rates of violence, and over-representation of Indigenous Australians in custody, other unique factors may exist, and warrant further investigation.

Overall this study reveals how risk and protective towards violence and incarceration for both Indigenous and non-Indigenous participants do not act in isolation. Fundamentally, as EST emphasises, interventions to reduce violent behaviour and offending need to target the individual, their broader family, community, culture and society. In this study, individual factors included cannabis and alcohol use, education level, employment status, religious beliefs and relationship status. Microsystem factors included religious beliefs and institutions, family relationships, education and employment opportunities. Cannabis use, alcohol use and employment also fall under the exosystem, as these types of factors are often influenced by the neighbourhood and community environment, local politics, government policies and local industry. For example, the community may be disorganised and display attitudes that condone drug and alcohol use, and there may be a lack of industry providing employment for the individual community members. As with many remote communities in North Queensland, government policies may be in force that restrict opportunities and lead to adverse behaviour or enable the individual to achieve plans or goals for the future in a positive manner. Macrosystem factors included family and childhood influences, socio-economic circumstances and religion, which are the wider societal influences which indirectly act to shape the way in which the individual develops during their lifetime.

Rather than looking for a single reason for violent behaviour and incarceration, the interaction of various factors should be investigated, as exploring these is more logical and effective than searching for an individual cause. A comprehensive, multidimensional approach to identifying risk and protective factors relating to violent behaviour and incarceration is required. Furthermore, as highlighted by the BFI-10 validation study, it is of great importance to ensure that any psychometric tools that are used to assess risk and protective factors with disadvantaged groups have been validated with the population in question. Correctly assessing people, using culturally appropriate tools, may ensure those at risk for violent behaviour and incarceration are offered intervention and diversionary activities from a young age.

This is one of the first kinds of explorative qualitative and quantitative studies that has been conducted in North Queensland with Indigenous and non-Indigenous Australians, including inmates incarcerated in a high security prison. The importance of the issues of substance use and abuse, social determinants including childhood upbringing and experiences, and education to a tertiary or vocational level are highlighted in this study. The socioeconomic indicators of remote Indigenous communities are often far worse than urban populations, with little or no constructive economic activity, and few educational and employment options available within the community. Education and early intervention for young people at risk of using cannabis in

North Queensland communities is recommended. Further, assisting men to gain meaningful employment may in turn decrease the rates of both violent behaviour and incarceration in this unique population. Identifying needs, and developing individual strengths to reduce violent behaviour, incarceration and reoffending may allow more men to become constructive, functioning contributors to society. Breaking the cycle of violence and incarceration for men in North Queensland requires the public health community, educators, legislators, community leaders and young people to work towards reducing risks and increasing strengths, avoiding incarceration, and presenting alternate pathways for disadvantaged young people.

Appendices

Appendix A: Paper 1

Honorato, B., Caltabiano, N., & Clough, A.R. Risk and protective factors for violent behaviour and incarceration for Australian men – A Literature review. *Trauma, Violence & Abuse*, submitted, awaiting reviewer selection.

Appendix B: Paper 2

Honorato, B., Caltabiano, N., Clough, A.R. (2016). From trauma to incarceration: Exploring the trajectory in a qualitative study in male prison inmates in North Queensland, Australia. *Health and Justice* 4(3). doi 10.1186/s40352-016-0034-x

**RESEARCH
ARTICLE****Open
Access**

From trauma to incarceration: exploring the trajectory in a qualitative study in male prison inmates from North Queensland, Australia



Bronwyn Honorato^{1*}, Nerina Caltabiano² and Alan R. Clough³

Abstract

Background: There were approximately 34,000 prisoners incarcerated in Australian correctional centres as of 2014. The most common offence type for these prisoners was 'acts intended to cause injury', comprising 18 % of the total offences. Of the various risk factors for violent offending and incarceration identified in international research, trauma - either single events or ongoing; and substance abuse - which is commonly associated with violent behaviour across many cultures, are major contributors.

Method: This paper analyses qualitative data from 11 in-depth interviews with inmates from a high security male correctional centre in QLD, Australia. The aim of the study was to explore risk factors for violence and incarceration for men from north Queensland.

Results: A common trajectory to violent offending and incarceration was identified for these prisoners, including: childhood/adolescent trauma; a lack of support or treatment for trauma experiences; substance abuse to mask the pain; and a 'brain snap' precipitating a violent offence.

Conclusion: Further research is required into factors leading to violent offending and incarceration generally. In particular early detection and intervention for trauma victims is imperative in order to reduce exposure to such a harmful trajectory from trauma to incarceration.

Keywords: Male prison inmates, Incarceration, Trauma, Violent offending

Appendix C: Paper 3

Honorato, B., Caltabiano, N., & Clough, A.R. Risk and protective factors for the perpetration of violence toward others: An exploratory study in North Queensland, Australia. *Victims and Offenders*, submitted.

Appendix D: Paper 4

Honorato, B., Caltabiano, N., & Clough, A.R. Exploring risk and protective factors for incarceration for men from North Queensland, Australia. *Journal of Experimental Criminology*, submitted.

Appendix E: Ethics Approvals

Phase 1: Ethics Approval H5273

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Phase 2: Ethics Approval H5983

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Phase 2: Amendment to Approval H5983

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Appendix F: QCS Approval Letter

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Appendix G: Phase 1 Interview Demographic Questions

Participant number:	Date:
Interviewed by:	Phone/in person
Professional/Inmate/Prison staff/Community member	
1. Do you consent to participating in this yarn/interview? Yes/no	
2. What is your age? 18-24 25-34 35-44 45-54 55-64 65-74 75+	
3. What is your gender?	
4. Do you have a religious affiliation? Yes/No If yes please specify:	
5. What is your marital status?	
6. What community/town do you normally live in?	
7. Where did you grow up? City/regional/rural/remote/very remote	
8. What is your employment status?	
9. What is your highest level of education?	
10. What is your ethnic background/culture?	

Appendix H: Phase 1 Interview Guide/Checklist

Information sheet	
Informed consent	
Introduce self and other researchers	
Your role, where you are from, how long have you been in XX	
Demographics	
Protective factors Childhood/family environment	
	Not witnessing violence
	Job
	Finishing school
	AMPs/sale of alcohol
	Cultural traditions/activities
	Role model
	Close adult/connectedness
	Housing
	Peer groups
Protective factors Specifically for Indigenous	
Age of first offence typically	
Crucial age to intervene/prevent	
Meaning of going to prison	
	Rite of passage/badge of honour
Religion/Spirituality	
What to say to young kids – how to avoid	
Activities	
Court process?	
Most important factor in protecting young men from violence/jail	
What separates kids who don't end up violent/ jail	
Keep previous offenders out	
Factors causing violence/jail Alcohol/drugs	
	Jealousy
	Historical issues
	Learned behaviour

What needs to be done to stop violence/jail	
Any other comments	
Anyone else who could provide insight protective.	

Appendix I: Information Sheets**Phase 1: Community Information Sheet****INFORMATION SHEET**

PROJECT TITLE: Exploring protective and risk factors for violent offending and incarceration for Indigenous and non-Indigenous adults in far north Queensland.

You are invited to take part in a research project about the protective and risk factors relating to violent offending (assault, sexual assault, homicide) and incarceration (jail). The study is being conducted by Bronwyn Honorato and will contribute to a PhD (Public Health / Psychology) at James Cook University.

If you agree to be involved in the study, you will be invited to participate in an interview. The interview, with your consent, may be audio-taped, and should only take approximately 1 hour of your time.

Taking part in this study is completely voluntary and you can stop taking part in the study at any time without explanation or prejudice. You may also withdraw any data that has not yet been analysed, or included in reports or publications if you wish.

As some people may become distressed talking about, or answering questions about, violent offending and jail, counselling and assistance is available from: Lifeline 131 144, Centacare 4044 0130, Queensland Indigenous Family Violence Legal Service 1800 887 700; James Cook University Counselling service 4042 1150.

The data from the study will be used in research publications and reports (PhD publications and thesis). You will not be identified in any way in these publications.

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If you have any concerns regarding the ethical conduct of the study, please contact:
Human Ethics, Research Office
James Cook University, Townsville, Qld, 4811
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Phase 1: Correctional Centre Information Sheet**INFORMATION SHEET**

PROJECT TITLE: Exploring protective and risk factors for Offence against Person and Incarceration for Indigenous and non-Indigenous adults in far north Queensland.

You are invited to take part in a research project about the protective and risk factors relating to violent offending (assault, and incarceration (jail)). The study is being conducted by Bronwyn Honorato and will contribute to a PhD (Public Health / Psychology) at James Cook University.

If you agree to be involved in the study, you will be invited to participate in an interview which will take approximately 30 minutes of your time. The interview will ask about the important protective and risk factors relating to violent offences against person and jail, and questions about things like your age, gender, occupation, living arrangements, religion, and education. With your consent, the interview may be audio-taped. You may also be contacted for further information or be invited to participate in a survey at a later date, if you have consented to this on the 'informed consent form'.

Taking part in this study is completely voluntary and you can stop taking part at any time without explanation or prejudice. You may also withdraw any data that has not yet been analysed, or included in reports or publications if you wish.

As some people may become distressed talking about, or answering questions about, violent offending and jail, counselling and assistance is available from: Lotus Glen Correctional Centre – Manager, Offender Development; Lotus Glen Correctional Centre psychologists and counsellors; Lifeline 131 144, Centacare 4044 0130, Queensland Indigenous Family Violence Legal Service 1800 887 700; James Cook University Counselling service 4042 1150.

Your responses and contact details will be strictly confidential, however, should you disclose a previously undetected offence, and/or threats to harm yourself or others, confidentiality cannot be assured. Any such disclosure (including identifying details) will be immediately reported to Lotus Glen Correctional Centre staff.

The data from this study (Phase 1) will be used to develop a survey, for research publications and reports (PhD publications and thesis). You will not be identified in any way in these publications. If you have any questions about the study, please contact – Bronwyn Honorato, Associate Professor Alan Clough or Dr Nerina Calitabiano.

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Phase 2: Community Information Sheet**INFORMATION SHEET – COMMUNITY**

PROJECT TITLE: Exploring protective and risk factors for violent offending and incarceration for Indigenous and non-Indigenous adults in far north Queensland. Phase 2 – survey.

You are invited to take part in a research project about the protective and risk factors relating to violent offending (assault, sexual assault, homicide) and incarceration (jail). The study is being conducted by Bronwyn Honorato and will contribute to a PhD (Public Health / Psychology) at James Cook University.

If you agree to be involved in the study, you will be invited to answer a survey which should take approximately 30 minutes to complete.

The survey will ask about the important risk and protective factors for violent offending and jail, and questions about things like your age, occupation, living arrangements, religion and education.

Taking part in this study is completely voluntary and you can stop taking part at any time without explanation or prejudice. If you wish, you may also withdraw any data that has not yet been analysed or included in reports or publications.

As some people may become distressed talking about or answering questions about violent offending and jail, counselling and assistance is available from:

Lifeline 131 144, Centacare 07 4044 0130, Relationships Australia 1300 364 277, Douglas Shire Indigenous Family Support and Counselling Service (Mossman) 07 4098 3244.

Your responses and contact details will be strictly confidential.

The data from the study will be used in research publications and reports (PhD publications and thesis). You will not be identified in any way in these publications.

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Phase 2: Correctional Centre Information Sheet**INFORMATION SHEET- LOTUS GLEN CORRECTIONAL CENTRE**

PROJECT TITLE: Exploring protective and risk factors for violent offending and incarceration for Indigenous and non-Indigenous adults in far north Queensland. Phase 2 – survey.

You are invited to take part in a research project about the protective and risk factors relating to violent offending (assault, sexual assault, homicide) and incarceration (jail). The study is being conducted by Bronwyn Honorato and will contribute to a PhD (Public Health / Psychology) at James Cook University.

If you agree to be involved in the study, you will be invited to answer a survey which should take approximately 30 minutes to complete.

The survey will ask about the important risk and protective factors for violent offending and jail, and questions including your age, usual occupation, living arrangements, religious beliefs and education.

Taking part in this study is completely voluntary and you can stop taking part at any time without explanation or prejudice. If you wish, you may also withdraw any data that has not yet been analysed or included in reports or publications.

As some people may become distressed talking about or answering questions about violent offending and jail, counselling and assistance is available from: Lotus Glen Correctional Centre – Manager, Offender Development; Lotus Glen Correctional Centre – psychologists and counsellors; Lifeline 131 144, Centacare 07 4044 0130, Relationships Australia 1300 364 277

Your responses and contact details will be strictly confidential, however, should you disclose a previously undetected offence, and/or threats to harm yourself or others, confidentiality cannot be assured. Any such disclosure (including identifying details) will be immediately reported to Lotus Glen Correctional Centre staff.

The data from the study will be used in research publications and reports (PhD publications and thesis). You will not be identified in any way in these publications.

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If you have any concerns regarding the ethical conduct of the study, please contact:
Human Ethics, Research Office
James Cook University, Townsville, Qld, 4811
Phone: (07) 4751 5011 (ethics@jcu.edu.au)

Appendix J: Informed Consent Forms

Phase 1: Community Informed Consent

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Phase 1: Correctional Centre Informed Consent

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Phase 2: Community Informed Consent

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Appendix K: Phase 2 Survey Questions Quantitative Study**CONSENT****I consent to participate in this survey:***Yes**No***DEMOGRAPHIC QUESTIONS****2. Gender***Male**Female**Other***3. Age:****4. Culture (select the one that applies to you)***Aboriginal**Aboriginal and Torres Strait Islander**Torres Strait Islander**Non-Indigenous**Other (specify)***5. Main language (select the one that applies to you)***English**Indigenous Australian language**Other (specify)***6. Relationship status (select the one that applies to you)***Married**Widowed**De-facto/Partner**Single**Divorced/Separated**Other (please specify)***7. Where do you come from?****8. Where do you usually live (for inmates – when do you live when you are not at LGCC)?****9. Who do you usually live with? (select the one that applies to you)***Alone**Other relatives**Spouse/Partner**Unrelated adults**Spouse/Partner and our children**Unrelated children*

*My own child/ children**Other (specify)***10. How many other people do you usually live with?***Number of adults:**Number of children:***11. When did you finish school? (select the one that applies to you)***Did not go to school**Year 12**Primary School**Trade or apprenticeship**Year 7 or 8**TAFE or college**Year 9**University - undergraduate**Year 10**University – postgraduate**Year 11**Other (specify)***12. Which describes your current/latest employment (inmates before LGCC)? (select the one that applies to you)***Stay at home parent**Volunteer**Part time/casual**Unemployed**Full time**Student**Other (specify)***13. Do you follow a religion?***Yes**No**(if you answered no to Q13 please skip to Q16)***14. When did you become religious? (select the one that applies to you)***Have always been**As a teenager**As a child**As an adult***15. Which religion do you follow? (select the one that applies to you)***Buddhist**Dreamtime**Jewish**Christian – Catholic, Anglican, Uniting,**Muslim**Methodist, Presbyterian, Baptist, Church of**Other (specify)**England*

16. How do you see yourself? (select one box for each of the 10 statements)

	<i>Disagree strongly</i>	<i>Disagree a little</i>	<i>Neither agree or disagree</i>	<i>Agree a little</i>	<i>Agree strongly</i>
1. Reserved					
2. Generally trusting					
3. Tend to be lazy					
4. Relaxed, handle stress well					
5. Has few artistic interests*					
6. Outgoing, sociable					
7. Find fault with others					
8. Does a thorough job					
9. Gets nervous easily					
10. Has an active imagination					

*this item was reworded following pilot testing to 'has a lot of artistic interests' and scoring amended to reflect the changes.

QUESTIONS ABOUT YOUR CHILDHOOD AND PAST

17. What was your family life like? (select those that applied to you during childhood)

- | | |
|---|--|
| <i>My parents abused alcohol or drugs</i> | <i>Good role models (parents, or others)</i> |
| <i>Grandparents/aunties/uncles helped bring me up</i> | <i>My parents had skills to bring me up</i> |
| <i>My mother and father lived together</i> | <i>My father was around</i> |
| <i>Others in my family had been to jail</i> | <i>My parents were supportive</i> |
| <i>I had a routine, rules in my family</i> | <i>My parents expected a lot from me</i> |
| <i>There was domestic violence</i> | <i>My parents abused me</i> |

18. Did you do any of these activities as a child/teenager? (select those that applied to you during childhood)

- | | |
|--|---|
| <i>Family activities</i> | <i>Community activities</i> |
| <i>Cultural activities (fishing, hunting, art, music, dance)</i> | <i>Outstations (remote stations, farms)</i> |
| <i>Religious activities</i> | <i>Alcohol free activities</i> |
| <i>PCYC (Police Citizens Youth Club)</i> | <i>Sports</i> |
| <i>Mentoring programs</i> | <i>Go to counselling</i> |

Drug and alcohol education

Get advice from Elders, role models

19. Which of these did you have as a child/teenager? (select those that applied to you during childhood)

Resilience (bounce back from set-backs)

Advice from role models/Elders

High self esteem

Respect from others

High self confidence

Respect for others

Acceptance from others

Food and other necessities

Sense of self identity

Knowledge of my culture

Belief in self

Dreams, hope and opportunities for the future

Tolerance for others

English language skills

Able to self-reflect

20. How did you feel as a child/teenager? (select those that applied to you during childhood)

Couldn't control anger

Lacked self-belief

Helpless

Shame

Jealous

Stubborn

Judged by others

Unloved

Paranoid

No sense of belonging

Rebelled against authority

Worthless

Took a lot of risks

Unwanted

21. Did any of these happen to you as a child/teenager? (select those that applied to you during childhood)

Family/friends committed suicide

Bullied at school

Racial discrimination

Sexual abuse

Verbal abuse

Hung around in groups in public

Involved in traumatic event

Had no friends

Neglected by parents/carers

Lived in foster care

Witnessed a traumatic event

Physical abuse

22. Did you live in a community affected by an AMP? (Yes/no)

Yes

No

23. Which describes your alcohol and drug use? (select the one that applies to you)

Current user

Never used

Past user

(if you answered never to Q23, skip to Q26)

24. How often do you/did you use the following? (select any that applied to you)

	Never	Less than once a year	Yearly/a few times a year	Monthly	Weekly	Daily
Alcohol						
Cannabis						
Heroin						
Speed						
Ice						
Chroming						
Sniffing (petrol)						

25. How old were you when you started using these?

Alcohol

Speed

Cannabis

Ice

Heroin

Chroming

Sniffing

QUESTIONS ABOUT VIOLENCE

26. Have you been involved in the following violent acts - as a perpetrator, victim or witness? (Select the ones that apply to you)

	Perpetrator	Victim	Witness
Domestic/family violence as a child			
Domestic/family violence as an adult			
Rape/sexual assault as a child			

<i>Rape/sexual assault as an adult</i>			
<i>Violence from a female</i>			
<i>Alcohol related violence</i>			
<i>Payback</i>			
<i>Assault</i>			
<i>Square up</i>			
<i>One punch assault</i>			
<i>Assault with a weapon</i>			
<i>Violence against a female</i>			

27. Have you been involved in murder/homicide (perpetrator, witness, accessory?)

Yes

No

QUESTIONS ABOUT JUVENILE DETENTION

28. Have you ever been to juvenile detention?

Yes

No

(if you answered no to Q28, skip to Q35)

29. How many times have you been to juvenile detention?

30. How many years did you spend in juvenile detention?

31. What age did you commit your first offence leading to juvenile detention?

32. What are the main (violent) offences you went to juvenile detention for?

33. Where you using drugs/alcohol at the time of the offence/s?

Yes

No

(if you answered no to Q33, skip to Q35)

34. What drugs/alcohol were you using?

QUESTIONS ABOUT ADULT PRISON

35. Are you or have you ever been in prison as an adult?

Yes

No

(if you answer no to Q34, please skip to Q43)

36. How many times have you been to prison?

37. How many years have you spent in prison?

38. What age did you commit your first offence leading to prison?

39. What are the main (violent) offences you were/are in prison for?

40. Were you using drugs/alcohol at the time of your offence/s?

Yes

No

41. What drugs/alcohol were you using?

42. Why did you commit the offence? (select the ones that apply to you)

Facebook/social media

Brain snap/lost it

No father around

Homeless

Victim of violence as a child

No spiritual/religious beliefs

Mental health problems

Overcrowded housing

Wrong place at wrong time

No positive role models

Relationship problems

Opportunity to commit a crime

Bad friends/peer group

Violence is part of my culture

No job

Bored

Drugs (stoned, high)

Jealousy/jealous rage

Witnessed violence as a child

Abuse/neglect as a child

Lost touch with my culture

No/not much education

Poverty/money worries

Alcohol (drunk)

Dependant on welfare/government benefits

Other reason

43. What does going to jail mean to you (for non-inmates, what would you think going to jail would mean)? (select the ones that apply to you)

No big deal/don't care

Cool or deadly

Good to be around family and friends there

Better than home

Punishment

A place to settle down and chill out

Shame

Deterrent

Free food and rent

Badge of honour

I want to go/go back

Part of manhood, initiation, rite of passage

A waste of life

QUESTIONS ABOUT POSSIBLE PROTECTIVE FACTORS

44. Which of these (do you think) would stop people being violent and going to jail?

Parents discipline without abuse or violence

Parents support children's decisions

Parents having high expectations of child

Having no family members in jail

Parents having skills to bring up children

No domestic violence

Father being involved in life

Parents not using drugs or alcohol

Rules and routine in family

Extended family bringing children up

Parents as positive role models

Parents living together

45. Which activities (do you think) would stop people being violent and going to jail?

Dreams for the future

Knowing cultural identity

Sport

Drug and alcohol education

English language skills

Finishing Year 12

Mentors

Interventions for young people in trouble

Positive peer group/good friends

Cultural activities/ traditions

Guidance and advice from Elders/role models

Full time employment

Better access to food and necessities

Professional counselling

Religion

Alcohol Management Plans

Drug and alcohol rehab

QUESTIONS ABOUT POSSIBLE RISK FACTORS

46. Which of these (do you think) increase the chances of young people being violent and going to jail?

Being bullied

Sexual abuse

Living in foster care

Verbal abuse

Neglect by parents/carers

Physical abuse

Growing up/living in the city

Involved in traumatic event

Being Aboriginal

Witness to a traumatic event

Being Torres Strait Islander

Loitering/hanging around in groups in public

No employment

Physical/ emotional changes due to growing up

Racial discrimination

(puberty)

Growing up living in a remote area

Having no friends

ADDITIONAL QUESTIONS

- 47. When is the best age to intervene to stop young people becoming violent and going to jail?**
- 48. Regarding Indigenous prisoner rates, why do you think there are so many Indigenous men in jail in North and Far North QLD?**
- 49. What would stop the high rates of violence and jail for Indigenous men in North and Far North Queensland?**

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