

UNIVERSITY OF NEW ENGLAND



## Pawsitive Solutions:

The symbiotic relationship between prisoners and dogs

A dissertation submitted by

Lauren M. Humby, B Crim (Hons I)

For the award of

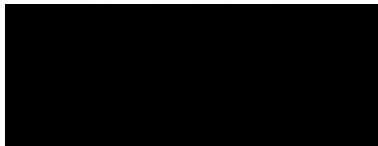
Doctor of Philosophy

March, 2017

Word Count: 59,721

## CERTIFICATION OF DISSERTATION

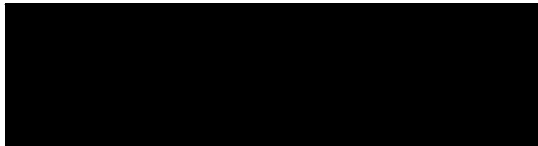
I certify that the ideas, experimental work, results, analyses and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.



Signature of Candidate

06/03/2017

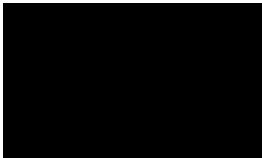
Date



Signature of Principle Supervisor

06/03/2017

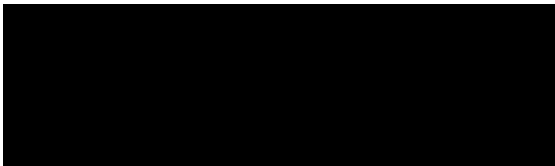
Date



Signature of Co-Supervisor

06/03/2017

Date



Signature of Adjunct

06/03/2017

Date

## **ACKNOWLEDGMENTS**

Firstly, I would like to acknowledge two beloved rescue dogs, Elvis and Cilla, who began my journey into dogs as therapy. Through Elvis and Cilla, I saw the importance of the human-animal relationship, and wanted to apply this knowledge to my passion for assisting offenders and those at risk of offending. Secondly, I would like to thank Queensland Corrective Services for permitting access to Queensland Correctional Centres as well as the inmates, prison staff and representatives from relevant animal welfare, and training organisations that participated in the study. Your co-operation, participation, and willingness to share your insights and experiences made this project possible and were greatly appreciated. Thirdly, I want to thank Dr Elaine Barclay, Dr Wendy Brown, and Dr Joanne Righetti for their invaluable insights, support, feedback, suggestions, comments, guidance, and patience. Finally, I want to thank my family who supported and encouraged me in what often seemed to be an endless endeavour. I would also like to acknowledge that the views expressed herein are solely those of the author and in no way reflects the views or policies of Queensland Corrective Services.

# TABLE OF CONTENTS

Certification of Dissertation.....	i
Acknowledgments .....	ii
Table of Contents .....	iii
List of Figures .....	viii
List of Tables.....	ix
Glossary .....	x
Acronyms .....	xiii
Abstract.....	xv
<b>1. Introduction .....</b>	<b>2</b>
Introduction.....	2
Objectives .....	3
The Need for Prison Dog Programs .....	3
Dogs as Therapy.....	5
The present study.....	6
Structure of the thesis .....	8
<b>2. Background .....</b>	<b>10</b>
Introduction.....	10
Prisons in Australia.....	10
PDPs in Australia .....	11
Assistance Dogs Australia.....	11
Royal Society for the Prevention of Cruelty to Animals (RSPCA).....	12
Greyhound Racing .....	14
Other PDPs .....	15
Conclusion .....	18
<b>3. Literature Review .....</b>	<b>19</b>
The Problem.....	19
Punitive Populism and Rehabilitative Ideals .....	21
Why Punish? .....	23
The Justification of Punishment .....	24
Consequentialism.....	24
Retributivism .....	26

The Impact of Imprisonment.....	27
The Pains of Imprisonment .....	28
The Need for Alternative Measures .....	33
Current Rehabilitative Measures .....	35
Stopping the Cycle of Crime.....	36
What Is Desistance?.....	36
Desistance vs. Rehabilitation.....	39
Theories of Desistance.....	39
Maturational Theories .....	39
Sociological Theories.....	40
Psychological Theories .....	41
Integration of Social and Psychological Theories .....	42
Protective Factors Associated with Desisting Offenders.....	43
Social Networks.....	43
Agentic-focused Interventions.....	45
Employment.....	45
Altruistic Activities.....	45
Dogs: A Tool for Promoting Desistance.....	46
The Human-Animal Bond.....	47
Evolution of the Dog.....	49
The Domestication Process .....	50
Theoretical Perspectives of the Human-Animal Bond.....	51
Dogs as Therapy.....	54
The Role of Dogs in Animal-Assisted Activities.....	56
Prison Dog Programs.....	58
Existing PDP Research.....	59
Benefits to Inmates .....	59
Benefits to Society .....	62
Benefits to Prison Officers .....	63
Benefits to Dogs.....	63
Challenges of PDPs.....	64
The Need for Additional Research.....	65
<b>4. The Nature of PDPs in Australia.....</b>	<b>66</b>

PDP Research in Australia .....	66
Method.....	68
Participants .....	69
Procedure.....	69
Measures.....	70
Data Analysis.....	71
Results.....	72
Program Design.....	73
Pre-participation .....	75
Post-participation.....	75
Funding.....	77
Program Benefits .....	78
Gaps in service provision.....	82
Additional Resources .....	82
Additional Training Opportunities for the Dogs .....	83
Additional Support from Prison Officers .....	84
Summary and Conclusions .....	85
Limitations of Research .....	85
Conclusion .....	86
<b>5. Evaluating PDPs in Australia.....</b>	<b>87</b>
Prison Dog Programs.....	87
Physiological Benefits.....	88
Psychological Benefits .....	89
Socialisation Benefits.....	89
Vocational and Educational Benefits.....	90
Environmental Benefits.....	90
Impact on Inmate Behaviour .....	91
The Impact on Desistance .....	91
Rationale for Current Study .....	92
Methodology .....	93
Participants .....	93
Measures.....	94
Procedure.....	95

Data Analysis.....	96
Results.....	97
Program #1 .....	97
Program #2 .....	101
Program #3 .....	107
Discussion.....	112
Benefits of PDPs.....	112
Suggestions for Improvement.....	117
Prior Dog Ownership .....	118
Perceived Outcomes of a Post-Release Dog Program .....	119
Limitations of Research .....	121
Conclusion .....	122
<b>6. PDPs and Emotional Intelligence .....</b>	<b>123</b>
The Impact of PDPs on Emotional Intelligence.....	123
Emotional Intelligence.....	124
Emotional Intelligence and Prisoners.....	127
Using Dogs to Improve Emotional Intelligence.....	127
Self-Awareness .....	127
Self-management .....	128
Social Awareness.....	129
Relationship management .....	129
The Emotional Ability of Dogs.....	130
Human Perception of Emotion in Dogs.....	134
Emotional Intelligence and PDPs.....	138
Research Design .....	138
Participants .....	139
Measures.....	139
Procedure.....	141
Data Analysis.....	141
Findings .....	142
Happy .....	142
Sad.....	142
Fear.....	143

Anger.....	144
Improving Emotional Intelligence .....	144
Discussion.....	145
Limitations of Research .....	146
Suggestions for Future Research .....	147
Conclusion .....	147
<b>7. Conclusions and Implications.....</b>	<b>149</b>
Introduction.....	149
Summary of Key Findings.....	149
Implications of Findings .....	151
Dogs as Social Facilitators and Moderators .....	151
Dogs as Educators.....	152
PDPs as Recompense .....	153
Implications for Future Policy and Programs .....	153
Program Logic Model for PDPs .....	159
Limitations of Research .....	166
Future Research.....	166
Final Conclusion.....	168
Reference List .....	169
Appendices.....	197



## LIST OF FIGURES

Figure 1.1 Sentenced prisoners in Australia 1915-2016 .....	4
Figure 5.1 Number of PDPs by year .....	72
Figure 5.2 Animal welfare and training organisations facilitating PDPs.....	73
Figure 5.3 PDP design models.....	74
Figure 5.4 Number of dogs rehomed by state .....	76
Figure 5.5 Number of prisoners participating in PDPs by state .....	77
Figure 6.1 Benefits reported by prisoner PDP participants .....	112
Figure 6.2 PDP Benefits reported by corrections staff participating in PDPs.....	113
Figure 6.3 Prisoner PDP participants' suggestions for improvements .....	117
Figure 6.4 Suggestions for improvements by corrections staff involved in PDPs .....	117
Figure 6.1 The dog in a "humble and affectionate frame of mind" .....	132
Figure 6.2 Illustrations of a "dog with hostile intentions" .....	132
Figure 6.3 Aggression/Fear Matrix.....	133
Figure 6.4 Happy .....	134
Figure 6.5 Sad.....	135
Figure 6.6 Anger .....	136
Figure 6.7 Fear.....	137
Figure 6.8 Number of correct responses for photographs of happy .....	142
Figure 7.9 Number of correct responses for photographs of sadness .....	143
Figure 7.10 Number of correct responses for photographs of fear .....	143
Figure 7.11 Number of correct responses for anger.....	144
Figure 7.1 Program Logic Diagram .....	165

## LIST OF TABLES

Table 2.1 Correctional custodial facilities by jurisdiction 2016 .....	10
Table 2.2 PDPs facilitated by ADA .....	12
Table 2.3 PDPs facilitated by RSPCA .....	14
Table 2.4 PDPs facilitated by Greyhound Racing .....	15
Table 2.5 Other PDPs.....	17
Table 2.6 Description of PDP models.....	18
Table 3.1 Definitions of desistance .....	38
Table 7.1 Framework for emotional competencies.....	125
Table 8.1 Program logic model for PDPs.....	164

## GLOSSARY

Altruism	Altruism is defined as a voluntary and intentional act performed with the primary goal of benefiting another being (Leeds, 1963).
Animal-assisted activities (AAA)	“AAA provides opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life. AAA is delivered in a variety of environments by specially trained professionals, para-professionals, and/or volunteers, in association with animals that meet specific criteria” (Kruger & Serpell, 2006, pp. 22-23).
Animal-assisted interventions (AAI)	Animal-assisted interventions is a general term used to describe a variety of activities that includes animals (LaJoie, 2003).
Animal-assisted therapy (AAT)	“AAT is a goal-directed intervention in which an animal that meets specific criteria is an integral part of the treatment process. AAT is directed and/or delivered by a health/human service professional with specialized expertise, and within the scope of practice of his/her profession. AAT is designed to promote improvement in human physical, social, emotional, and/or cognitive functioning [cognitive functioning refers to thinking and intellectual skills]. AAT is provided in a variety of settings and may be group or individual in nature. This process is documented and evaluated” (Kruger & Serpell, 2006, pp. 22-23).
Anthropomorphism	“...attribution of human characteristics or behaviour to any other non-human entity” (Urquiza-Hass & Kotrschal, 2015, p. 167).
Canine socialisation	“Exposing [a dog] gradually and systematically to different types of people, places, things, surfaces, noises, touch (from you and strangers), other dogs, and other species of animals” (Dennison, 2005, p. 124).

Criminogenic effect	The increase in criminal misconduct that occurs as a result of imprisonment (Vieraitis <i>et al.</i> , 2007).
Criminogenic needs	“...dynamic risk factors that, when changes, are associated with changes in the probability of recidivism” (Andrews & Bonta, 2014, p. 49).
Culture shock	“...the anxiety that results from losing all our familiar signs and symbols of social intercourse” (Oberg, 1960, p. 177)
Emotion	An outward movement used to express internal states and needs (Ratey, 2001, p. 227).
Emotional intelligence	“...the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth” (Salovey & Mayer, 1997, p. 10).
Empathy	“...the ability to understand and share in another’s emotional state or context” (Cohen & Strayer, 1996, p. 988).
Ethogram	A visually descriptive and/or pictorial catalogue of the behaviour of an animal species (Bolwig, 1964).
Human agency	“...the human capability to exert influence over one’s functioning and the course of events by one’s actions” (Bandura, 2009, p. 8).
Human-animal bond	“A mutually beneficial and dynamic relationship between people and other animals that is influenced by behaviours that are essential to the health and wellbeing of both. This includes, but is not limited to, emotional, psychological, and physical interactions of people, other animals, and the environment” (Wollrab, 1998, p. 1675).

Mass imprisonment	“...systematic incarceration of whole groups of the population,” which leads imprisonment to become one of the social institutions structuring this group’s experience (Garland, 2001b, p. 2).
Prison dog programs (PDPs)	Involves a dog being paired with one or more specially selected inmates who train, socialise, and care for the dog for a specified period or until the animal is ready to move on to advanced training as an assistance dog, or be rehomed.
Prisonisation	A process in which inmates take on the customs and culture of a prison in order to survive life on the inside (Clemmer, 1940, p. 299).
Protective factors	Characteristics, traits, and/or situations that protect an individual from problem behaviours and offending behaviour (Rutter, 1999; Vanderbilt-Adriance & Shaw, 2008).
Punishment	A painful or unpleasant experience imposed on a person who has violated a rule or law of society (Pollock, 2014, p. 4).
Risk factors	“Characteristics of people and their circumstances that are associated with an increased chance of criminal activity” (Andrews & Bonta, 2014, p.20)
Social support	“...information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligation” (Cobb, 1976, p. 300).
Underemployed	Refers to employment in jobs that require low skills, provide low pay, and do not provide a sense of self-worth (Krienert & Fleisher, 2004, p. 85).

## ACRONYMS

AAA	Animal-assisted activity
AAI	Animal-assisted intervention
AAT	Animal-assisted therapy
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
ACTH	Adrenocorticotrophic hormones
ADA	Assistance Dogs Australia
AIHW	Australian Institute of Health and Welfare
AUS	Australia
AWL	Animal Welfare League
AWLQ	Animal Welfare League of Queensland
CASEC	Companion Animal Services Employment Centre
CBT	Cognitive-behavioural Therapy
EECS	Extra Edge Community Services
MSCEIT	Mayer-Salovey-Caruso Emotional Intelligence Test
NEADS	National Education for Assistance Dog Services
NSW	New South Wales
NT	Northern Territory
PDP	Prison dog program
PIP	Pups in Prison
PLM	Program Logic Model
POOCH	Positive Outcomes, Obvious Change with Hounds
QCS	Queensland Corrective Services

QLD	Queensland
RSPCA	Royal Society for the Prevention of Cruelty to Animals
SA	South Australia
SAFE	Saving Animals from Euthanasia
TAS	Tasmania
UNE	University of New England
US	United States
VIC	Victoria
WA	Western Australia
WKKF	WK Kellogg Foundation

## ABSTRACT

With the prison population steadily increasing in Australia and over half of prisoners reoffending, it is evident that prison is ineffective for deterring and rehabilitating current and future offenders and reducing recidivism. As a result, there has been a gradual shift toward community corrections, placing an emphasis on interventions that address the criminogenic needs of prisoners. One such intervention is the implementation of prison dog programs (PDPs). PDPs involve a dog being paired with one or more specially selected inmates, who train, socialise and care for a dog for a specified period of time or until the animal is ready to be rehomed or move on to advanced training as an assistance or service dog. Although PDPs have been implemented in many correctional facilities in Australia, there is little evidence to support the existence of such programs. As such, this research sought to address this gap and add to the literature by conducting three studies. The first aimed to examine the nature and extent of PDPs operating in Australia through a national survey of eight corrections staff and 18 representatives from animal welfare, and training organisations involved in administering the program. The second study conducted semi-structured interviews with eight inmates, six corrections staff and one animal welfare representative involved in PDPs in Queensland, to identify the circumstances in which inmates are most likely to benefit from PDPs and how these programs can assist inmates in meeting their immediate and future needs. The third study aimed to explore the effect of PDPs on ten inmate participant's emotional intelligence; specifically, their ability to read emotions in others by comparing their ability, with current and previous dog owners, to provide judgements of emotion in photographs of dogs. The results of these studies support findings of other research and suggest that PDPs not only benefit inmates participating in PDPs, but also non-participant inmates, prison staff, prison culture, the dogs and society. The most reported benefits included positive changes to the prison environment, improved relationships with other inmates and staff and the opportunity to give back to society. The most commonly identified negative aspects were a lack of resources, personality clashes between inmates within the program and inmates' inability to socialise the dogs outside of the prison. Data from the studies as well as a review of the literature were used to develop a program logic model to improve the development, implementation, and evaluation of future PDPs.



# 1. Introduction

---

*Homeless animals and prison inmates are both 'throw away populations', discarded by a society that cares not what happens to them (and prefers they be kept out of sight). Having inmates and animals help each other in a symbiotic relationship results in a win-win-win situation, with not only the inmate and animal benefiting but the larger community as well (Furst, 2006, p. 425).*

## INTRODUCTION

With an ever increasing prison population in Australia and over half (56%) of those prisoners reoffending, it is evident that prisons are in need of new ways of deterring reoffending and rehabilitating offenders (Australian Bureau of Statistics (ABS), 2016b; Productivity Commission, 2017). As a result, a gradual shift toward community corrections has emerged placing an emphasis on interventions that address the criminogenic needs of prisoners. One such intervention is the implementation of prison dog programs (PDPs). PDPs involve a dog being paired with one or more specially selected inmates, who train, socialise and care for a dog for a specified period of time or until the animal is ready to be rehomed or move on to advanced training as an assistance or service dog. This research examined prison dog programs (PDPs) in Australia to identify the current nature of PDPs in Australia, the benefits of such programs and the potential for PDPs to reduce reoffending and encourage desistance by addressing a prisoner's current and future needs. To achieve this, three studies were conducted. The first comprised nation-wide surveys of correctional staff, and representatives from animal welfare and, training organisations to identify the prevalence, characteristics, and benefits of PDPs in Australia. The second study involved semi-structured interviews with inmates and prison staff involved in PDPs to gather information on the program's operation as well as participants' perceptions of the effectiveness of the programs and the benefits for inmates. The third study explored the ability of PDP participants to read emotion in dogs by comparing the ability of prisoner participants with current and previous dog owners in their ability to identify emotion in photographs of dogs. The results from this research support the findings of other PDP studies and suggest that PDPs can positively affect a variety of populations, including inmates participating in PDPs, non-participant inmates, corrections staff, the dogs, and society.

The most common benefits cited included positive changes environmental changes within the prison, improved relationships with other inmates and corrections staff and the opportunity to give back to society and recompense for past crimes. The greatest challenges reported were the lack of resources for the program, personality clashes between inmates, and the inability for inmates' to socialise the dog outside of the prison environment. These findings were then used, in addition to a review of the literature, to inform the development of a program logic model (PLM) which sought to assist in the future development, implementation, and evaluation of PDPs.

## OBJECTIVES

This research was designed to achieve four goals. Firstly, it aimed to provide a review of current PDPs in Australia, including the number of programs implemented, the program objectives and design, and assess program outcomes. Secondly, it aimed to identify the outcomes of PDPs and examine how they can promote positive personal change. Thirdly, it aimed to provide preliminary data on the ability for PDPs to improve prisoners' social and emotional intelligence by developing skills in reading and processing behavioural cues of canines. Lastly, data from the present study, as well as a review of the literature, were used to develop a program logic model to improve the development, implementation, and evaluation of future PDPs. As this was evaluative research, five research questions guided this research:

1. What is the current nature of prison-based dog programs in Australia?
2. How can PDPs assist in meeting prisoners' immediate and future needs and encourage desistance?
3. Can humans judge the emotional state of dogs using the behavioural cues captured in photographs?
4. Do inmates, participating in PDPs, judge the emotional states of dogs, in a similar way to that of non-prisoner dog owners?
5. In what ways can PDPs be improved: for inmates, for staff, and for the dogs?

## THE NEED FOR PRISON DOG PROGRAMS

Although political leaders have developed and implemented additional and more severe punitive strategies in an attempt to reduce reoffending rates, there is little to no evidence to show that these tougher sentencing strategies have a positive impact on crime rates and reoffending. There is, however, strong evidence to suggest that rehabilitative programs

targeting prisoners' general education and life skills can challenge and change offenders' behaviour, and reduce their likelihood of reoffending.

In 2016, there were 38,845 sentenced and unsentenced inmates in prisons in Australia, a rate of 208 prisoners per 100,000 of the adult population (ABS, 2016b). This is a rise of 8% since 2015 with 36,134 prisoners in custody and an increase of 34% across the last decade (ABS, 2006; ABS, 2015). Although there has been an increase of 327,600 people in Australia's population between 2015 and 2016, this does not account for the steep incline in the prison population, as shown in Figure 1.1. The growth rate for the general population is 1.4% compared to 7% for the prison population (ABS, 2016a).

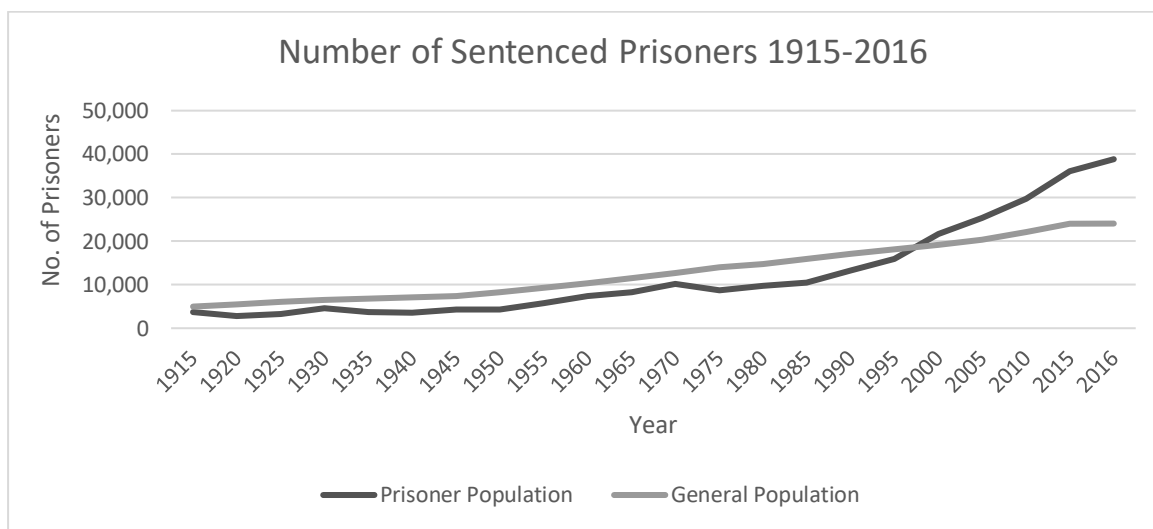


Figure 1.1 Sentenced prisoners in Australia 1915-2016 (Source: ABS, 2016b; ABS, 2016a)

Given that the majority of prisoners will one day be released back into the community, it is necessary to prepare inmates for life beyond jail so that when they are released they are able to seek productive jobs and lead more fulfilling lives and becoming functioning members of society (Borzycki & Baldry, 2003; Garmon, 2002). If nothing is done, it is reasonable to assume that when those incarcerated are released they will repeat the same behaviour or activity that resulted in their incarceration. As Petersilia (2000, p. 3) states,

*If these needs remain unmet, there will be effects not just for returning inmates, but for community members who are at risk for further crime victimization.*

Not only are the public potentially subject to further crime victimization, but the financial and social costs of imprisonment to the community are significant. Expenditure on Australian

prisons in the 2015-2016 year was \$2.9 billion, an increase of 3% in the last year since 2014-2015 (Productivity Commission, 2017). This equates to a total of \$80,256 spent on each prisoner per year and \$220 per prisoner per day. With this figure expected to continually increase, new approaches to punishment need to be considered (Donnelly *et al.*, 2015)

By removing people from the criminogenic influences of the community, the prison promised to provide an environment in which the prisoner could be reformed (Matthews, 2009, pp. 5-6). However, while imprisonment may prevent reoffending in the short-term through incapacitation, research suggests that in the long-term, prison increases rather than decreases crime (Baldry *et al.*, 2006; Bales & Piquero, 2012; Clemmer, 1940, p. 300; LeBel, 2012; Mead, 1918, p. 583; Petersilia, 2003; Sykes, 1958; Smith *et al.*, 2002; Travis, 2005). As a result of these findings, the notion of prison as an effective method of crime control is becoming increasingly questionable. Previous research has concluded that adapting to the prison environment is difficult and incarcerated persons can suffer long-term consequences that impact upon their ability to reintegrate into society post-release and live an offence free life. Few people are completely unchanged or unscathed by the experience of prison (Haney, 2006). As such, there has been a gradual shift toward community corrections, which places an emphasis on rehabilitative and reformatory measures that focus on psychological intervention (O'Toole, 2006, p. 139). One innovation has been the implementation of animal therapy in prisons.

## DOGS AS THERAPY

Commonly referred to as 'man's best friend', dogs are an important part of many people's lives. An Australian survey on pet ownership found that Australia has one of the highest incidences of pet ownership in the world, with more than 24 million pets in 62% of Australian households. Dogs were found to be the most common household pet, with 38% of Australian households owning at least one dog (Animal Health Alliance, 2016). Research has shown that dogs can provide a range of benefits to humans, including improvements in health, facilitating recovery from illness or injury, and predicting certain underlying ailments, such as seizures and cancer (Wells, 2007). While the practical benefits of dogs are commonly observed (i.e., guide dogs for the blind), the psychological benefits are often overlooked. As a source of companionship and support, dogs have proved to be effective in decreasing emotional distress and stress related symptoms (i.e., decreased cortisol and blood pressure), increasing wellbeing (i.e., increased levels of oxytocin) and improving social interactions (Allen *et al.*, 2002;

Friedmann *et al.*, 2007; Katcher *et al.*, 1989; McNicholas & Collis, 2000; Nagasawa *et al.*, 2009; Nepps *et al.*, 2014; Odendaal & Meintjes, 2003). As a result of these findings, numerous animal-based therapeutic interventions have been developed and implemented in a number of settings, including prison.

PDPs involve a dog being paired with one or more specially selected inmates, who train, socialise and care for a dog for a specified period of time or until the animal is ready to be rehomed or move on to advanced training as an assistance or service dog. Prison dog programs (PDPs) have been suggested as a supplement to imprisonment as they are an altruistic activity that enable offenders to compensate for their crimes committed and encourage personal development which ultimately enables prisoners to challenge and change their offending behaviour and reduce the likelihood of reoffending (Strimple, 2003). While the number of PDPs implemented around the world is increasing, research on these programs is limited. In Australia, while PDPs have been operating since 1974 and have been implemented across all six states and one territory, only three studies have been conducted examining the impact of such programs (Extra Edge Community Services (EECS), 2012; Mulcahy, 2011; Walsh & Mertin, 1994). Anecdotally, research suggests PDPs provide many positive physical, psychological, social, behavioural, vocational, and environmental benefits for not only inmates participating in PDPs, but also non-participant inmates, corrections staff, the dogs and society. However, few programs have been subject to rigorous research or evaluation and this has severely limited the evidence base for their effectiveness. Further research is needed to explore PDPs in Australia to identify optimal program design, including program objectives, and conduct ongoing program evaluations to ensure program success.

## THE PRESENT STUDY

The present study aimed to address this gap by conducting three studies. The first study provided a demographic profile of PDPs currently operating in Australia. It investigated the prevalence and characteristics of PDPs in Australia, such as the name of the program, the year implemented, and number of participants, eligibility criteria as well as the aims of each program and how successful the programs are at reaching their goals. This study addressed the first research question: to identify the current nature of prison-based dog programs in Australia. The second study conducted semi-structured interviews and focus groups with inmates, prison staff, and representatives from animal welfare and training organisations involved in PDPs in Queensland. The aim of this study was to evaluate the effectiveness of PDPs specifically to

identify the circumstances in which inmates are most likely to benefit from PDPs and how these programs can reduce recidivism and thus explored research questions two and five. The third study addressed research questions three and four through an exploration of inmate's ability to interpret canine behavioural cues. In its entirety, this research presents the only known demographic data of PDPs currently operating in Australia and is one of the few studies that incorporate both quantitative and qualitative research designs. Furthermore, one of the most important contributions of this research is the notion of dogs as educators and the possibility of nonhuman's ability to *teach* human beings.

Existing studies examining PDPs and PAPs have been overly reliant on interviews with participants and as such have been unable to definitively identify the impact of PDPs. While qualitative research is useful for revealing the collective impact of these programs, no research to date has quantitatively identified PDPs in Australia or the emotional intelligence of prisoners. Furthermore, very little research has examined the impact PDPs on recidivism. Accordingly, a mixed methods approach was adopted for the present study, which consisted of three separate studies. A mixed-method approach involves collecting and analysing both quantitative and qualitative data in order to provide a greater understanding of a phenomenon than either approach alone (Creswell & Plano Clark, 2007). The qualitative data uses words to provide a description of the perceptions and experiences of participants, while the quantitative data uses numbers to examine and explain social phenomena (Miles *et al.*, 2014, p. 4). The use of both study approaches provided complementary findings on different aspects of the same phenomenon, thus expanding the current literature.

The first study involved collecting both quantitative and qualitative data by distributing a cross-sectional survey to 18 representatives from animal welfare and training organisations and nine corrections staff involved in PDPs. This study aimed to fill the gap in the literature by quantitatively identifying the nature of PDPs in Australia. In study two, semi-structured interviews were conducted with eight inmates, six prison employees and one representative from an animal welfare agency involved in PDPs to identify the circumstances in which inmates are most likely to benefit from PDPs and how these programs can assist inmates in meeting their immediate and future needs. The final study used a qualitative design to explore the effect of PDPs on the emotional intelligence of ten PDP participant's; specifically, their ability to read emotions in others by comparing their ability, with 49 current and previous dog owners, to provide judgements of emotion in photographs of dogs. Additional, detailed

descriptions of the methodological approach for each study are provided in the forthcoming chapters.

Given the exploratory nature of this research, the qualitative aspects of this research incorporated a grounded theoretical approach, which allowed the researcher to enter the subjective world of the study participants and gather a holistic view on real-life social phenomena from the participants' perspective (Auerbach & Silverstein, 2003; Creswell, 1998; Hancock & Algozzine, 2006). Grounded theory is a qualitative method developed by Glaser and Strauss (1967) for the purpose of constructing theory from data, rather than gathering data to test hypotheses. Grounded theory was developed to provide researchers with the opportunity to develop contextually based theories, which is grounded in the participants' experiences (Patton, 1990). Grounded theory was chosen for this research because it provided the researcher with the flexibility to rigorously explore the "individual processes, interpersonal relations and reciprocal effects between individuals and larger social processes" (Guthery, 2010, 48). Grounded theory is particularly useful when little is known about the phenomenon under investigation as it provides the opportunity for the researcher to discover explanations for phenomena that have not previously been revealed (Glaser & Strauss, 1967).

A primarily criminological approach to this research was undertaken due to the fact that the author and primary supervisor are based in the criminology discipline. However, with the second and third supervisors specialising in canine behaviour with veterinary and zoological backgrounds, the team provided a cross-disciplinary, holistic approach to this study.

## STRUCTURE OF THE THESIS

Contextual data on prisons and PDPs in Australia is provided in chapter two presenting an overview of the number of prisons in Australia, across all jurisdictions, and existing PDPs. A review of the literature follows in chapter three which examines penological trends, the human-animal bond, and past and present prison dog programs. More specifically, it provides a brief overview of the history of punishment and the emergence of rehabilitation as a focus in penological thinking. It explores the meaning and process of desistance, analyses the special relationship between man and dog, and suggests how dogs and PDPs can promote desistance. Chapters four and five present the findings of studies one and two respectively. Each chapter describes the rationale for the research, methods employed and analyses the findings of the research considering emerging themes within the context of the research questions and the

literature, and concludes with recommendations for future research. Chapter six presents preliminary data from a third study, obtained as part of study two, on the potential for PDPs to impact prisoners' ability to read emotion. Chapter seven concludes with a summary of the findings from all studies, the implications for current PDPs and suggestions for further research.



## 2. Background

---

### INTRODUCTION

While prison dog programs are not a new phenomenon, there is very little known about these programs, particularly in Australia. The purpose of this chapter is to provide contextual data on prisons and PDPs in Australia. A description of the number and types of prisons across all Australian states and territories is presented along with an inventory of known PDPs. Information was sourced from correctional agency websites, websites of community animal welfare and training organisations, newspaper articles, media releases and personal communication from the past ten years.

### PRISONS IN AUSTRALIA

At the time of this study, corrective services operated 112 custodial facilities, including 86 government-operated prisons, nine privately operated prisons, four transitional centres, one periodic detention centre, and twelve 24-hour court cell complexes. Of the 95 prisons in Australia, there were 32 prisons in New South Wales (NSW) (two private), 13 in Victoria (VIC) (two private), 13 in Queensland (QLD) (two private), 16 in Western Australia (WA) (two private), nine in South Australia (SA) (one private), five in Tasmania (TAS), one in the Australian Capital Territory (ACT) and five in the Northern Territory (NT) (Productivity Commission, 2016).

*Table 2.1 Correctional custodial facilities by jurisdiction 2016 (Productivity Commission, 2017)*

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	AUS
Government operated prisons	31	11	12	14	8	5	1	4	86
Privately operated prisons	2	2	2	2	1	–	–	–	9
Transitional centres	2	1	–	–	–	–	1	–	4
24-hour court cell complexes	12	–	–	–	–	–	–	–	12
Periodic detention centres	–	–	–	–	–	–	1	–	1
Total	47	14	14	16	9	5	3	4	112

## PDPs IN AUSTRALIA

In Australia, prisoners have been involved in training, socialising and caring for dogs since 1974 when a PDP was implemented at Beechworth Training Prison in the state of Victoria (Lai, 1998; Walsh & Mertin, 1994). Since then, PDPs have been implemented in all Australian states and the Northern Territory. There are three main facilitators of PDPs in Australia: Assistance Dogs Australia (ADA), Royal Society for the Prevention of Cruelty to Animals (RSPCA), and, Greyhound Racing Australia.

### *Assistance Dogs Australia*

Assistance Dogs Australia (ADA) is a not-for-profit organisation established in 1996 in which Labrador puppies are trained to assist people with physical and mental disabilities in order to enhance their quality of life and improve their level of independence (ADA, 2016c). ADA has implemented two PDPs at several prison locations across Australia: Pups in Prison and Justice Pups (ADA, 2016b; ADA, 2016c). The Pups in Prison program began in 2002 at Kirkconnell Correctional Centre located near Bathurst in NSW and variations of the model have since been implemented in an additional ten Australian prisons (Costa, 2010a). Justice Pups, modelled on the Pups in Prison design, operates at the Frank Baxter Juvenile Correctional Centre near Gosford in NSW, and began in 2008 (ADA, 2016b).

Fundamentally, the Pups in Prison and Justice Pups programs utilise the same design — they are both multimodal, incorporating aspects of both vocational and service animal socialisation program models. Service animal socialisation programs involve training puppies, typically Labradors, to become assistance dogs for people with a physical or mental disability. Vocational programs provide PDP participants with the opportunity to gain qualifications in animal studies. While participating in the program, selected inmates help raise and train assistance dogs for individuals with a physical or mental disability (Corrective Services NSW, 2012). To participate, inmates must demonstrate their commitment and interest in the program through an application and interview process with ADA and correctional staff (ADA, 2016b). If successful, inmates must attend a two-day workshop where they learn about dog training and sign a commitment of responsibility to ADA and the program. Typically, two inmate trainers are assigned one puppy for a period of between 14 to 16 months, one primary carer and one secondary carer (Corrective Services WA, 2011; Queensland Government, 2008). During this time, the pups are cared for by the inmates on weekdays and are sent home with correctional

officers or volunteer sitters at night and/or on weekends. This counteracts socialisation issues for the dogs that can occur due to lack of exposure to other people, animals, and environments inside the prison (Anonymous, 2012). Table 2.2 lists PDPs facilitated by ADA currently operating in Australia and their date of commencement and termination. While it may appear that PDPs facilitated by ADA favour male prisoner participants over female prisoner participants, the significant difference in male and female prisoner populations may account for this finding. The latest figures show that as of 30 June 2016, female prisoners accounted for 8% of the total prison population in Australia with 35, 745 male prisoners and 3, 094 female prisoners (ABS 2016b; Productivity Commission, 2017).

*Table 2.2 PDPs facilitated by ADA*

Program	Prison	State	Security	Gender	Began	Ended
Pups in Prison	Fulham	VIC	Min-Med	Male	2009	n/a
	Darling Downs	QLD	Minimum	Male	2007	2012
	Borallon	QLD	Min-max	Male	2010	2011
	Kirkconnell	NSW	Minimum	Male	2002	2011
	Ron Barwick	TAS	Minimum	Male	2010	n/a
	Southern Queensland	QLD	Min-Max	Male	2012	Current
	Wooroloo Prison Farm	WA	Minimum	Male	2012	Current
	Bathurst	NSW	Min-med	Male	2012	n/a
	June	NSW	Min-med	Male	2007	n/a
Justice Pups	Frank Baxter	NSW	Juvenile	Male	2008	n/a

### ***Royal Society for the Prevention of Cruelty to Animals (RSPCA)***

The RSCPA facilitates four PDPs in Australia: the Second Chance Program, the Dog Rehabilitation Program, the Foster Dog Program, and the Pets in Crisis program (Levine, 2013; Queensland Corrective Services (QCS), 2008; 2009; 2011; 2015; RSPCA, 2011). Although each of these programs is slightly different, they all involve inmates resocialising and retraining unwanted or abandoned dogs from the RSPCA (Costa, 2010a). In each of these programs, a specified number of dogs are sent to the prisons where the dogs receive basic care and training by approved inmates (QCS, 2011). Once a dog responds well to the program, the RSPCA arranges for the dog to be adopted as a pet (Costa, 2010a).

The Second Chance Program, run at the Brisbane Women's Correctional Centre in Queensland, is a community service program that began in 2011. Animals, including dogs are placed with prisoners in residential accommodation for up to eight weeks and receive 24/7 foster care in a community living environment (QCS, 2011).

The Dog Rehabilitation Program is a vocational and community service program that began in 2010 at John Morony Complex in the Outer Metropolitan Correctional Centre near Sydney in NSW. Up to 30 dogs are housed in the specialised training facility and purpose-built kennels at the prison. The dogs participate in a training course designed to overcome dog aggression, food aggression, and resource guarding. Inmate participants, as well as correctional staff, are specially taught how to train and rehabilitate aggressive dogs before the program commences (RSPCA, 2011). The RSPCA regularly attends the prison to conduct behavioural assessments on the dogs. Once the dog successfully passes these assessments, they are put up for adoption by the RSPCA (Costa, 2010a).

The Foster Dog Program is a partnership with QCS, Pet Rescue, and Arthur Gorrie Correctional Centre near Brisbane in Queensland (Jagtman, 2013; McMillen, 2015). This program is designed to care for animals that are too young for adoption, injured, sick or have behavioural issues that need addressing. Each of the prisoners are taught how to handle the dogs and must obtain an Occupational Health and Safety (OH&S) Certificate, now Workplace Health and Safety (WHS), and a First Aid Certificate prior to participation in the program. All prisoners also attend a short training session facilitated by the RSPCA to ensure they are all familiar with the program (Levine, 2013).

The Pets in Crisis program, located at Numinbah Correctional Centre near the Gold Coast in QLD, is a foster care program that facilitates a safe refuge for pets of individuals who are at serious risk of domestic violence until they can be reunited with their families (QCS, 2008, 2009). The program facilitator, DVConnect Womensline, partners with a number of animal welfare organisations, including Animal Welfare League Queensland (AWLQ) and RSPCA Queensland who provide temporary care for the pets (.; DVConnect Womensline, 2016; RSPCA Queensland, n.d.). Table 2.3 lists PDPs facilitated by RSPCA currently operating in Australia and their date of commencement and termination.

Table 2.3 PDPs facilitated by RSPCA

Program	Prison	State	Security	Gender	Began	Terminated
Second Chance	Brisbane Women's	QLD	Min-Max	Female	2011	n/a
Dog Rehabilitation	John Morony	NSW	Minimum	Male	2010	n/a
Pets in Crisis	Numinbah	QLD	Minimum	Female	2008	Current
Foster Dog	Arthur Gorrie	QLD	Maximum	Male	2013	n/a

### ***Greyhound Racing***

There are five PDPs running in two Australian states, namely Victoria and Western Australia, facilitated by Greyhound Racing and a number of other not-for-profit organisations. Dhurringile Prison is partnered with Eastern Companion Dog Training in addition to Greyhound Racing Victoria. Tarrengower is associated with PetRescue and Greyhound Racing Victoria. Hakea Prison runs the Companion Animal Services Employment Centre (CASEC) program in conjunction with Greyhound Racing WA, Extra Edge Community Services and Community First International. Dillwynia Correctional Centre's Greyhounds as Pets program is facilitated by Greyhound Racing NSW (Costa, 2010a, 2010b). Each of these programs operates for six weeks and retrains and resocialises ex-racing greyhounds so that they can be adopted out as family pets through the Greyhound Adoption Program (Costa, 2010b). This program focuses on obedience training and socialisation through exposure to non-racing environments. The greyhounds are housed in purpose-built kennels at each of the respective prisons. While each program is a multimodal design with a vocational and community service aspect, they vary in the number of ex-racing greyhounds and prisoner participants. The CASEC and Greyhounds as Pets programs can house up to six dogs (Costa, 2010b) while the programs at Dhurringile and Tarrengower prisons cater for up to four dogs (Anonymous, 2013). Table 2.4 presents a list of PDPs facilitated by Greyhound Racing Australia and their date of commencement and termination.

*Table 2.4 PDPs facilitated by Greyhound Racing*

Program	Prison	State	Security	Gender	Began	Terminated
Greyhound Adoption Program	Dhurringile	VIC	Minimum	Male	2007	Current
	Tarrengower	VIC	Minimum	Female	2009	Current
	Port Phillip	VIC	Maximum	Male	n/a	n/a
Greyhounds as Pets	Dillwynia	VIC	Min-med	Female	2010	Current
CASEC	Hakea	WA	Min-med	Male	2011	n/a

### ***Other PDPs***

There are also a number of other PDPs operated by smaller not-for-profit organisations. These programs include AWLQ’s Pups in Prison program, Mates for Inmates, Smart Pups, Dogs for Diggers, Saving Animals from Euthanasia (SAFE) Avon Valley Acacia Animal Care Training Program, Extra Pine Tree Tots, and 4 Paws on the Inside.

Animal Welfare League Queensland (AWLQ) is a non-government organisation that has specialised in the care, shelter, and rehoming of cats and dogs since 1959. Approximately 10,000 stray and abandoned animals are surrendered to AWLQ each year. In 2006, AWLQ began its Pups in Prison program at Numinbah Correctional Centre in Queensland, in collaboration with QCS (AWLQ, 2017). Initially, the program provided short-term care for puppies and their mothers until they were old enough to be returned to the Animal Welfare League (AWL) and rehomed as family pets. Then, in 2008, the program was expanded to provide short-term care for injured and sick dogs who needed additional one-on-one care. Inmates involved in the program feed and groom the dogs, develop the dog’s social skills and are responsible for the general health and wellbeing of the dog. As of December 2016, over 500 mothers and their pups have participated in the program (AWLQ, 2017). Additionally, AWLQ expanded its program to care for pets that were left temporarily homeless as a result of a family breakdown. The Pets in Crisis program, which also runs at Numinbah Correctional Centre, provides a safe place for pets that are at risk of harm due to domestic violence. As part of this program, prisoners care for the animals until a suitable home is found for them, or there is no risk of domestic violence and they can return to their owner (QCS, 2008, 2009). AWLQs Leave of Absence Program is another program that utilises animals to rehabilitate prisoners and prepare them for re-entry to society post-release. Although not a PDP, this program allows

low risk prisoners to complete community service at the local AWLQ shelter two days a week, equal to 120 hours a month (QCS, 2009).

The Mates for Inmates program, based on the American Pups in Prison program, matches dogs in need of training and rehoming with specially selected inmates. It began in March 2013 at the Dame Phyllis Frost Women's Prison near Melbourne in Victoria and is facilitated by Melbourne City Mission and Lort Smith Animal Hospital (Humpage & Leader, 2015; Melbourne City Mission, 2015). Inmates participate in a 12-session dog-training program, delivered over six weeks, and learn how to train and socialise the dogs in preparation for rehoming (Kalache, 2013). Since its inception approximately 22 dogs have been cared for and trained by inmates, with all but one rehomed (Humpage & Leader, 2015; Melbourne City Mission, 2015).

The Dogs for Diggers program conducted in the minimum-security wing of Bathurst Correctional Centre in Bathurst in NSW began in September 2012, in partnership with Young Diggers, a not-for-profit veteran welfare group that provides support to returned Australian service personnel and their families (DCS NSW, 2014). This program pairs inmates and dogs from PetRescue for six months and retrains them to become assistance dogs for injured Australian service personnel suffering physical and mental health injuries. As part of this training, the inmates take the dogs out into the community each week, to schools, nursing homes and local shopping centres to enhance canine socialisation (DCS NSW, 2014). Inmates also undertake a Certificate II in Animal Studies, which provides them with vocational skills, giving them additional employment opportunities post-release, increasing the likelihood of desistance from crime (Bottoms *et al.*, 2004; Farrall & Bowling, 1999; Healy, 2010; Henderson, 2001; Sampson & Laub, 1990, 1993; Smith, 2013; Uggen, 2000). Since its inception, the program has assisted 16 veterans (PetRescue, 2016).

The SAFE Avon Valley Acacia Animal Care Training Program began in 2010 and operates in conjunction with Acacia Prison, a privately managed prison west of Perth in WA, and SAFE Avon Valley, a not-for-profit, volunteer run and self-funded local dog rescue organisation. The program pairs unwanted or abandoned dogs from the local pound with prisoners who train and socialise the dogs to prepare them for rehoming (Gabrielle, 2013; SERCO, 2012).

The Extra Edge Pine Tree Tots Program is an early childhood and positive parenting program run by the not-for-profit organisation Extra Edge Community Services (EECS) at Boronia Pre-

release Centre for Women near Perth in WA, where therapy dogs and their owners have regularly visited the centre since 2010 and worked with the women and their children as part of the program (EECS, 2012; Gray, 2013).

Smart Pups Assistance Dogs, a not-for-profit organisation, based in Noosa Heads in Queensland, specialises in providing trained service dogs for children with special needs, such as autism and seizure related symptoms (Smart Pups Assistance Dogs, 2016). In May 2016, Smart Pups initiated a partnership with Maryborough Correctional Centre with two Labrador puppies, Hope and Hank. In this program, carefully selected inmate handlers attend training sessions with Smart Pups who teach the inmates how to raise and train the puppies. The inmates are responsible for the health and wellbeing of the dogs and must maintain records regarding the dog's health, wellbeing and training during the week, until the dogs go home with staff members on weekends for socialisation training (QCS, 2015; Taylor, 2016).

The Lotus Glen Correctional Centre runs 4 Paws on the Inside, a PDP that pairs inmates who provide socialisation and obedience training for dogs that would otherwise be euthanised at local impoundments (QCS, 2015). Table 2.5 presents a list of PDPs facilitated by small not-for-profit animal welfare or training organisations, their date of commencement and termination.

*Table 2.5 Other PDPs*

Program	Prison	State	Security	Gender	Began	Ended
AWLQ	Numinbah	QLD	Minimum	Female	2006	Current
Smart Pups	Maryborough	QLD	Maximum	Male	2016	Current
4 Paws on the inside	Lotus Glen	QLD	Min-Max	Male	n/a	n/a
Dogs for Diggers	Bathurst	NSW	Min-med	Male	2012	Current
SAFE	Acacia	WA	Medium	Male	n/a	n/a
Mates for Inmates	Dame Phyllis	VIC	Maximum	Female	2013	Current
Extra Pine Tree Tots	Boronia	VIC	Minimum	Female	n/a	n/a

There are a number of program design models used in Australia. Table 2.6 provides an outline of the design models.



Table 2.6 Description of PDP models (adapted from Furst, 2006)

<i>Community Service</i>	Inmates train and care for abandoned or unwanted animals, which are then adopted out to the community.
<i>Service Animal Socialisation</i>	Labrador puppies are raised and trained to become assistance dogs for people with physical or mental disabilities.
<i>Visitation</i>	Volunteers and their pet dogs are brought into correctional facilities.
<i>Vocational</i>	Inmates are trained and certified in animal studies or animal grooming, handling and care.
<i>Multimodal</i>	A mix of two programs or more. Typically includes the vocational model and community service or service animal socialisation models.

## CONCLUSION

This chapter has presented an overview of PDPs, using information sourced from websites, newspapers, media releases, and personal communication from the past decade, to provide an understanding of the scope of the industry in Australia. An overview of the number of prisons in Australia was also presented. To date, there has been no national data provided on PDPs in Australia. This chapter and the data collected from the present study will provide a timely and necessary insight into this unique phenomenon.

# 3. Literature Review

---

Over the past thirty years, PDPs have become a popular rehabilitation tool around the world. In this chapter a review of the literature on the emergence of rehabilitation as a focus in penological thinking, the current state of Australian prisons, and the limitations of imprisonment are presented. It also includes a brief overview of the history of the human-animal bond and examines how the special relationship between human beings and dogs can encourage positive physical, psychological, and emotional wellbeing amongst inmates in Australian prisons. Data were drawn from books, journal and newspaper articles, government reports, conference papers, and websites.

## THE PROBLEM

*Jails are more about recycling than rehabilitation (Pell, 2016, November 20).*

Australia's prison population is rapidly increasing and prisons are becoming overcrowded. As noted in the introduction, there were 38,845 prisoners in Australia in June 2016, a rise of 8% since 2015 and 34% across the last decade (ABS, 2016b; Productivity Commission, 2017). Not only does this increase affect the welfare of prisoners, it costs society, with \$2.9 billion dollars spent on prisoners between 2015 and 2016, an average of \$220 per prisoner per day. A major source of this expenditure on prisons is the building projects many jurisdictions are currently undertaking to cope with the increased prison population (Mackay, 2015). New South Wales (NSW) aims to spend \$3.8 billion over a period of four years to expand the state's prison capacity by 7,000 beds, while South Australia (SA) aims to expand the number of beds by 198 in its prison, as well as improved physical and mental health services, with an estimated cost of \$56.1 million. Tasmania (TAS) is increasing its accommodation capacity by 20 beds at an estimated cost of \$4.7 million and Victoria (VIC) is building a new 1,300-bed prison (Donnellan, 2016; Goodwin, 2016; Nicholls, 2016; State Government of Victoria, 2016).

While prison overcrowding may be seen as simply the ratio of prisoners to the prison's rated capacity, Haney (2006) asserts that it also includes the extent to which a prison houses more prisoners than its infrastructure can accommodate. While a prison may not technically exceed its rated capacity, by not increasing rehabilitation or educational programs, medical and mental

health resources for inmates, the prison is not meeting its expectations (Haney, 2006). Research documenting the impact of overcrowding suggests that population density can adversely affect living conditions, jeopardise prisoner safety, impact prison management, contribute to prisoners' poor mental and physical health, increase levels of violence and risk of suicide, limit access to meaningful programming and treatment and, ultimately, negatively impact prisoners successful integration into society post-release (Haney, 2002). The Victorian Auditor General has stated that the "nationally-accepted limit for the safe and efficient operation of the prison system" is a 95% utilisation rate because operation above 95% "compromises the ability of prison management to safely and humanely manage prisoners" (Victorian Auditor-General, 2012, p. 9). The Productivity Commission Report on Government Services in 2016 reports Australian prisons are operating at an average of 111.4% capacity (Productivity Commission, 2017).

This increasing prison population can be attributed to a number of factors. Firstly, there have been changes to crime and justice policies and practices that favour imprisonment over other sanctions or therapeutic measures. The Victorian Ombudsman (2015) attributes the increase in prison population to legislative changes regarding parole, sentencing, and bail. This is evident in the increased number of prisoners held on remand with unsentenced prisoners accounting for 31% of the total prison population in 2016, a 4% increase since 2015 and a 22% increase from 2014 (ABS, 2016b). Furthermore, changes to justice policies and practices often reflect intent to use prison as a means to control societal problems such as homelessness and unemployment, rather than a form of punishment. Prisoners, as a group, are significantly more disadvantaged than the general population with the majority of prisoners drawn from a relatively small number of neighbourhoods and communities characterised by high unemployment rates, low socioeconomic status, low levels of education and poor physical and mental health (Baldry, 2008; Vinson, 2015). An Australian survey conducted in 2015 found that 49% of prisoners reported they had been diagnosed with a mental health disorder, 48% of prisoners had been unemployed 30 days prior to imprisonment, 73% had not completed their final year of secondary school, and 25% reported being homeless immediately prior to imprisonment (Australian Institute of Health and Welfare (AIHW), 2015). As research has shown, ex-prisoners who have issues finding and maintaining suitable housing and/or employment, who are undereducated and/or diagnosed with a mental illness, return much more quickly to prison than those without such issues (Payne, 2007). It has been suggested that

prison is less about rehabilitation and more about society trying to control the lower classes. Viewed as a threat to society, these groups are subsequently labelled as dangerous and “must be in some way managed and controlled” (Shelden, 2001, p. 18). This notion is epitomised in Carlen (2006, p. 6) who asserts,

*Today, the prison still fulfils its age-old function of catering for the homeless, the mentally-ill, the stranger, the non-compliant poor, the abused and the excluded.*

Garland (2001b, p. 2) describes this phenomenon as ‘mass imprisonment’; systematic incarceration of whole groups of the population, which means imprisonment, becomes one of the social institutions structuring this group’s experience. Crouch (1996, p. 468) theorises that the disproportionately large number of lower class individuals in prison is a result of the economy demanding “skills and attitudes that poor, urban populations have little chance of acquiring” due to the constant prejudice these minority groups face. Haney (2012, p. 13) suggests that

*...imprisonment represents a form of “retraumatization” for many prisoners, one that reexposes them to a concentrated dose of the very criminogenic risk factors that they have already experienced in the harsh circumstances in which they were raised.*

By removing people from the criminogenic influences of the community, the prison provides an environment in which the prisoner can be reformed. However, if ex-prisoners are still faced with the issues that led to their incarceration post-release, and are not provided with the resources to change the outcome, chances are they will reoffend and face reimprisonment. Research supports this by finding that while imprisonment prevents reoffending in the short-term through incapacitation, in the long-term, prison increases rather than decreases crime (Baldry *et al.*, 2006; Bales & Piquero, 2012; Clemmer, 1940, p. 300; LeBel, 2012; Mead, 1918; p. 583; Petersilia, 2003; Smith *et al.*, 2002; Sykes, 1958; Travis, 2005).

## PUNITIVE POPULISM AND REHABILITATIVE IDEALS

Prison, as a form of punishment, has grown in popularity over the last couple of centuries and is now one of the most common forms of sentencing (Warren, 2007). Historically, prisons were used to hold petty offenders or debtors awaiting trial, transportation, or execution (McConville, 1998, pp. 118-119). During these times, punishment was seen as a public affair

and devices such as the stocks, pillory, and public cages were used as punishments, as well as public floggings, mutilation and death (Rothman, 2011, p. 48). However, reformers of the mid-19<sup>th</sup> Century successfully rallied to abolish these inhumane punishments, in favour of the prison system. Prison was now seen as a way of reforming offenders by removing them from the contaminating influences of the community, simultaneously improving society. It was believed that prison could make the 'idle poor' industrious and thereby turn a social deficit into something productive. Through the application of scientific and rational principles, prison aimed to produce useful obedient subjects (Matthews, 2009, pp. 5-6). At the same time however, the deprivation of liberty served as a reminder to society of the consequences of deviancy (Coomber *et al.*, 2015, p. 168).

While incarceration was considered the proper response to criminal behaviour by the early 1800s, there was disagreement on how the prison should operate and how prisoners should be managed. While some believed that prisoners should be segregated, others debated the merits of segregation and suggested that inmates should work together during the day and be separated at night (Matthews, 2009, pp. 16-17).

Although ideas about the use of punishment and imprisonment were changing, the prison system characteristic of today did not emerge until the early 20<sup>th</sup> Century. The segregation of prisoners became increasingly rejected as it became evident that long periods of isolation caused mental suffering, deterioration and ultimately a complete breakdown (O'Toole, 2006, p. 72). There was a move away from the severe and brutal systems of punishment to a more humane approach, which drew increasingly upon the social sciences and the analysis of human behaviour for answers. Once described and treated with utter loathing and contempt, prisoners were now seen as people who needed to be rehabilitated, respected, and accepted back into society post-release. They were no longer viewed as outsiders due to their genetic failings, and it was gradually recognised that society had a duty to rehabilitate them (Pratt, 2005, p. 86-89). Prison was now seen as a way to transform and improve the souls of offenders by providing programs that would increase their knowledge and skills to help them desist from criminal behaviour (Foucault, 1995, pp. 131, 136).

While rehabilitation was mostly accepted by the early to mid-1900s, during the 1960s the 'rehabilitative ideal' began to be scrutinised by a number of researchers. The most influential work criticising the efficacy of treatment interventions came from the popularly cited article "What Works?" (Martinson, 1974) which questioned the ability of treatment interventions to

reduce reoffending. Nicknamed 'Nothing Works', this research led to an increased fear of crime and the subsequent 'get tough on crime' approach (Howells & Day, 1999; Jeffries, 2005). Thus, punitive populism emerged with policy makers introducing harsher penalties including longer sentences, increased punishments and a more rigid and authoritarian prison regime, as part of their get tough on crime plan (Matthews & Pitts, 1998). Prisoners were now seen as dangerous populations that need to be herded, rather than as individuals in need of personal attention (Feeley & Simon, 1992). Clear (1994, p. 56) referred to this era as the "penal-harm movement". Although rehabilitative approaches existed during the 1970s and 1980s, punitive populism resulted in a significant decline in prison rehabilitation programs (Garland, 2001a, p. 62). Not only did the lack of financial support from state governments impede their success but also the pressure from society to 'punish' individuals was overwhelming with non-punitive measures seen as a "soft option" (Worrall, 2014, p. 2). Today, while many still see alternatives to prison as soft options, a gradual shift is emerging in society that supports a more rehabilitative approach, which focuses on being 'smart' rather than 'tough' on crime (Kelly, 2015, p. 127).

## WHY PUNISH?

Society has a legal right to punish those who fail to conform to the rules and values agreed upon by the majority. However, questions have been raised regarding whether society has a moral right to punish (Boonin, 2008, p. 1; Murphy, 1973). Traditionally, punishment is seen as a painful or unpleasant experience imposed on a person who has violated a rule or law of society (Pollock, 2014, p. 4). The question of what determines punishment is outlined by Flew (1954, as cited in Bean, 1981, p. 5) who suggests that punishment, in the sense of an imposed sanction (i.e., prison) has five elements. It must be considered unpleasant for the offender; it must be a direct action taken as a result of an actual or alleged crime and on an actual or alleged offender; it must be administered by personal agencies and must not be a consequence of the crime and it must be imposed and administered by a legal authority. While this definition of punishment is largely agreed upon, the justifications for punishment are underpinned by philosophical and criminological debate.

## THE JUSTIFICATION OF PUNISHMENT

There are two key moral philosophies that guide thinking about punishment based on preventing crime (i.e., consequentialist), or are concerned with justified punishments (i.e., retributive) (Hudson, 2004, p. 3).

### ***Consequentialism***

Consequentialism, also known as a utilitarian or forward thinking ethical theory, justify punishment in terms of its social results. Consequentialists consider punishment to be a means to an end and not an end itself and are only concerned with reducing future incidences of crime (Banks, 2004, pp. 107-108). As Beccaria (1995, p. 31) notes, the purpose of punishment is

*...to prevent the offender from doing fresh harm to his fellows and to deter others from doing likewise.*

Similarly, Bentham (1907) asserts that sanctions imposed must be moral actions that produce the greatest happiness for the greatest number of people. Consequentialist theories encompass ideas about incapacitation, deterrence, and reformation.

### Incapacitation

Incapacitation serves a central role in preventing future crime. Its aim is to punish the offender through the deprivation of liberty and to protect society by eliminating an offender's ability to commit crime. One of the main criticisms of incapacitation however, is that whilst it does protect society temporarily, it is more likely to increase crime than decrease it (Baldry *et al.*, 2006; Bales & Piquero, 2012; Clemmer, 1940, p. 300; LeBel, 2012; Mead, 1918; p. 583; Petersilia, 2003; Smith *et al.*, 2002; Sykes, 1958; Travis, 2005). This notion is evident in rising prison populations. As discussed earlier, Australia's prison population is rising at a rate six times that of the general population (ABS, 2016b; ABS, 2016a). This compares to the United States (US) where the prison population decreased by 1.2% from 2,200,400 to 2,173,800 across the last decade, despite an increase in the general population of 8% from 321,418,820 to 295,516,600 (Kaeble & Glaze, 2016; The World Bank, 2016). Donnelly *et al.* (2015) assert that if nothing is done to reduce offending behaviours, based on current trends, the prison population in NSW will continue to rise and by 2036 could reach 17,600, a 49% increase on current data.

## Deterrence

Deterrence assumes that people regulate their behaviour by calculations of pleasure and pain. This notion assumes that people want to achieve pleasure and avoid pain. Therefore, as Bentham (1907) asserts, the disadvantages of being punished must outweigh the perceived benefits of crime. While these objectives may appear theoretically sound, they are often proved ineffective in reducing criminal behaviour. In a comprehensive review of studies examining the deterrent effects of punishment Beyleveld (1979, p. 136) asserts,

*...there exists no scientific basis for expecting that a general deterrence policy, which does not involve an unacceptable interference with human rights, will do anything to control the crime rate. The sort of information needed to base a morally acceptable general policy is lacking. There is some convincing evidence in some areas that some legal sanctions have exerted deterrent effects. These findings are not, however, generalizable.*

Andenaes (1971) hypothesises that deterrence is ineffective because Bentham's idea that man is rational and calculates risk based on pleasure and pain is unrealistic. He argues that non-offenders do not commit crime as a result of moral inhibitions and norms of conduct. Instead, he suggests that offenders act out of emotional instability, poor self-control and as a result of a criminogenic effect (i.e., association with a criminal subculture).

## Rehabilitation

The principle of reform or rehabilitation is based on the view that crime is a symptom of a social disease and sanctions are seen as an opportunity to cure that disease through treatment so that the offender will not reoffend (Bean, 1981, p. 54). Foucault (1995, pp. 131, 136) suggested prison should be a way of transforming and improving the offender's soul by providing him with the knowledge and skills to help him resist criminal behaviour. Rotman (1994, p. 286) defines this notion as "right's oriented rehabilitation" which recognises that while offenders need to be punished, they also have the right to return to the community with "a better chance of being a useful citizen and staying out of prison." Research examining the causes of crime, has shown that crime is often a product of the offender's environment, lack of opportunity and education rather than the result of an original sin. A 2015 report on the health of Australian prisoners supports this view by revealing that prior to incarceration, 68% of the sample prison population ( $N = 1448$ ) had been previously incarcerated, 73% had not completed



their final year of secondary school, 47% reported being diagnosed with a mental illness and 48% of prison entrants ( $N = 1011$ ) were unemployed 30 prior to imprisonment (AIHW, 2015). Thus, punishment should be tailored to fit the offender and his or her circumstances, not the offence committed (Banks, 2004, p. 116). Through addressing the underlying causes of crime, prisoners are provided with the opportunity to challenge and change their criminal behaviour, reducing the likelihood of them reoffending and returning to jail.

### ***Retributivism***

Retributivism, is a more backward thinking theory which focuses on punishing offenders in a way proportionate to the crime committed using the principles of proportionality, or ‘just deserts’ and denunciation (Johansson, 2009). These approaches assume that punishment should be applied in just measure, according to the seriousness of the offence, and should involve the “element of condemnation” (Duff & Garland, 1994, p. 13). While some argue that retributivism is nothing more than revenge and such punishments are inhumane, others assert that it still applies in society albeit not in a literal sense (Banks, 2004, p. 112; Johansson, 2009). For example, while torture is no longer inflicted on those who cause bodily harm to others, their body is imprisoned and their ability to move freely is restricted. Retributivists further argue that retribution is designed to restore faith and order to society (Duff & Garland, 1994, pp. 12-16; Gibbs, 1978). This notion assumes that society has an agreed upon set of rules (a ‘conscience collective’) and believes that in order to maintain social order (‘social solidarity’) those who violate those rules must be punished. If the rules and values of a society are violated, confidence in those beliefs may waiver; by denouncing the offender, confidence is restored and society’s beliefs and values are reaffirmed (Durkheim, 1893/2014, pp. 63, 77, 83-84). As Garland 1991, p. 123) notes, “punishment thus transforms a threat to social order into a triumph of social solidarity.”

von Hirsch (1994, p. 120-121) takes a similar view, introducing the idea of censure. He defines censure as the act of holding someone accountable for their conduct and asserts that it is necessary to convey a message to the offender that they caused harm and they now face disapproval from society as a result. Ten (1987, p. 5) asserts that the offender has taken an unfair advantage of others in society and through punishing the offender fairness can be restored.

Retributivists justify their actions by asserting that if offenders were not punished, victims would want to take punishment into their own hands. By punishing an offender, a victim's restraint is justified and those that adhere to societal rules regain the advantage (Morris, 1968). However, a significant criticism of retributivism is that no allowance is made for individual circumstances that may increase the likelihood of an individual committing crime. Research suggests that retribution is ineffective as a crime control method as it does not protect society long-term nor does it change behaviour that contributed to the offender committing crime (e.g., mental health, social issues) (Banks, 2004, p. 109-110).

## THE IMPACT OF IMPRISONMENT

A number of researchers have studied the impact imprisonment has on an individual and conclude that prison is a negative experience which can produce lasting physical, social and psychological consequences that can persist long after prisoners are released and impede prisoner rehabilitation and post-prison adjustment (Carr *et al.*, 2006; Haney, 2002, 2012; Rotter *et al.*, 2005). Clemmer (1940, p. 299) defines the prison experience as one of prisonisation; a process by which prisoners "[take] on...the folkways, mores, customs and general culture of the penitentiary". Prisonisation assumes that prisoners experience a number of frustrations, deprivations, and mortifications that are a result of living in an institution (Sykes, 1958, pp. 63-83; see also Goffman, 1961, p. 14).

While imprisonment may prevent reoffending in the short-term through incapacitation, there is little evidence to suggest that imprisonment reforms offenders. Instead, it has been suggested that prison increases rather than decreases crime (Baldry *et al.*, 2006; Bales & Piquero, 2012; Clemmer, 1940, p. 300; LeBel, 2012; Mead, 1918; p. 583; Petersilia, 2003; Smith *et al.*, 2002; Sykes, 1958; Travis, 2005). While the direct causes of this are debatable, previous research has concluded that adapting to the prison environment is difficult and incarcerated persons can suffer long-term consequences that impact upon their ability to reintegrate into society post-release and to live an offence free life (Haney, 2006). As Haney (2012, p. 3) asserts,

*...many prisoners adjust to the immediate pains of imprisonment in ways that can prove highly dysfunctional once they have been released.*

## ***The Pains of Imprisonment***

In a study of male inmates in a New Jersey state prison, Sykes (1958) identified five pains, or deprivations, of imprisonment. The first is the deprivation of liberty. Sykes (1958) asserts that a prisoner's loss of liberty is twofold; prisoners are not only confined to the institution by "locked doors, high walls, barbed wire, cliffs and water, open terrain and so forth", but they are also confined within the institution by a number of rules and regulations (Goffman, 1957, p. 44). As Haney (2012, p. 5) asserts,

*Prisoners generally have no choice over when they get up in the morning or turn their light out, when, what, or where to eat, whether and for how long they shower or make a phone call, or how much toilet paper they are permitted in their cells.*

This significantly affects ex-prisoner reintegration into society post-release as they are unable to initiate activity, use their own judgment, or plan future events, and they can become traumatised by the unstructured and unpredictable nature of society, with some seeking to return to prison (Haney, 2012; Lloyd & Beynon, 2008, p. 20). As Curcio (1995, para. 2) asserts,

*[Inmates] go from a structured world where not much but compliance is expected of them into the "real" world when there's competition for jobs and where self-reliant and responsible behaviour is expected. Lacking preparedness, released inmates fail at real world necessities like finding and keeping a job...so [they] quickly end up back...in the criminal justice system.*

The second pain of imprisonment identified by Sykes (1958) is the deprivation of goods and services. Upon entering prison, inmates are stripped of all personal possessions and are given substitutes clearly marked as belonging to the institution (Caird, 1974, p. 6; Coyle, 1994, pp. 27-28; Goffman, 1961, p. 20). Goffman (1961, p. 16) identifies this process as 'trimming' or 'programming' and describes the process whereby:

*...the new arrival allows himself to be shaped and coded into an object that can be fed into the administrative machinery of the establishment, to be worked on smoothly by routine operations.*

Prisoners also lose access to activities available on the outside. Prisoners spend the majority of their time “doing nothing” with many spending on average 14 hours a day in their cell (Productivity Commission, 2017). This loss of stimulation can significantly affect prisoners mentally, with a depletion in cognitive function and an increase in interpersonal conflicts and assaults in prison (Haney, 2006). While prisons do provide access to some services, including education and rehabilitation, the ability to access these services is often limited due to funding issues, program availability and overcrowding (Haney, 2006; Mackay, 2014). Evidence of this can be seen in the significant waiting lists for prisoners wanting to participate in therapeutic programs. In April 2015, data from Corrections Victoria showed that 43% of violent offenders and 44% of general offenders, deemed eligible and suitable to participate in program interventions, had been waiting longer than six months to start therapeutic intervention (Victorian Ombudsman, 2015). This lack of access not only impacts on prisoners pre-release (increasing idleness and violence, as discussed above), but also post-release. Without access to prison activities, prison becomes timeless (Matthews, 2009, p. 39). Time in prison is suspended; it becomes an interruption of life, not part of it (Sapsford, 1983, p. 96). Thus, prison is futureless and prisoners have no sense of hope.

Furthermore, prison programs are designed to increase a prisoner’s ability to succeed and live an offence free life. A lack of these programs will subsequently result in an increase in recidivism (Haney, 2006; Jacobson, 2005, pp. 50-51). Furthermore, imprisonment can result in loss of skills and gaps in employment history, reducing the likelihood of ex-prisoners finding and maintaining employment post-release (United Nations, 2012). Bahr *et al.* (2005) studied the re-entry experiences of 51 parolees in Utah and found that 28% of those who were unemployed after release were reimprisoned, compared to a 12% reimprisonment rate among those employed. As a result ex-prisoners may feel compelled to resort to crime in order to meet their needs post-release (Petersilia, 2000).

The third pain of imprisonment identified by Sykes (1958) is the deprivation of heterosexual relationships. Sykes (1958, pp. 65-66) asserts that the isolation prisoners experience is

*...painfully depriving or frustrating, in terms of lost emotional relationships, of loneliness and boredom....and is a constant threat to the prisoner’s self-conception.*

Sykes (1958) suggests that a person searches for their identity within themselves and within the picture they find reflected in the eyes of others. By losing half of the interaction (i.e., a

female counterpart), the male prisoner's self-concept is "half-complete, fractured, a monochrome without the hues of reality" (Sykes, 1958, p. 72). As a result of this loss, prisoners can experience anxieties concerning identity, not only whilst in prison but also upon release. Once society knows of an individual's criminal behaviour, they begin to treat the individual in accordance to this criminal label and all other aspects of their identity are disregarded. Stigmatisation can negatively impact on ex-prisoners as it can alter their self-concept, sever or block relationships, result in exclusion from conventional opportunities such as employment and education, all of which can increase their likelihood of reoffending (LeBel, 2012; Mead, 1918; p. 589; Petersilia, 2003; Travis, 2005). Goffman (1963, p. 3) describes a person with a stigma as:

*...reduced in our minds from a whole and usual person to a tainted, discounted one ...we believe the person with a stigma is not quite human. On this assumption we exercise varieties of discrimination, through which we effectively, if often unthinkingly, reduce his life chances.*

Braithwaite (1989, p. 18) maintains that the concept of stigmatisation derives from labeling theory, which asserts that labelling a person 'deviant' can result in the internalisation of a criminal self-concept, producing a self-fulfilling prophecy in which those labelled criminals assume a criminal identity (see also, Becker, 2008; Lemert, 1967; Mead, 1918).

The fourth deprivation Sykes (1958) identified is the deprivation of autonomy. To manage large numbers of inmates, penal institutions exercise almost complete control over prisoners, forcing them to relinquish power over personal choices and decisions (Haney, 2012). They become "a passive player to whom things [are] done" (Coyle, 1994, p. 27). This loss of control and the need to rely on prison staff to do small things such as use the telephone can result in a loss of dignity and increases prisoners' hostility and aggression towards prison staff (Goffman, 1961, p. 22).

Lastly, the deprivation of security is the fifth deprivation identified by Sykes (1958). Violence is a common occurrence in prisons, with inmates experiencing verbal abuse, threats of physical violence and robbery (Edgar *et al.*, 2011). The knowledge of such events can provoke anxiety among prisoners who at some point are likely to be forced to fight to defend themselves or their property or submit to the abuse of others (McCorkle, 1992; Sykes, 1958).

Sykes (1958) argues that these pains of imprisonment, though not physically brutalising, have the cumulative effect of destroying the psyche of the inmate. The lack of liberty, autonomy, material possessions, and heterosexual relationships creates a certain type of behaviour that inmates learn, through socialisation, in order to deal with prison culture (Clemmer, 1940, p. 299; Sykes, 1958). To avoid this destruction, inmates may be motivated to engage in deviance during their incarceration as a means of alleviating their pain. Bullying other inmates, involvement in gangs, buying items through the underground economy, and sexual violence may all be motivated by the need for autonomy, liberty, security, goods and services, and sexual gratification (Johnson & Chernoff, 2002).

Furthermore, incarceration limits one's ability to reintegrate into society via limited occupational opportunities, family disruption, and stigma. Haney (2002) suggests that the negative effect of imprisonment becomes so internalised that it becomes an individual's standard way of relating to the environment. Therefore, it is important to address these effects of imprisonment in order to prepare prisoners to face the inevitable challenges they will encounter pre- and post-release and equip them with as many resources as possible to address those challenges. Johnson (2017, p. 18) asserts that the way an individual copes with the demands of incarceration ultimately affects how they adjust to life outside of prison.

Although Sykes' (1958) work is relatively unchallenged or unchanged since writing, new research examining the impact of imprisonment on offenders suggests that Sykes (1958) pains of imprisonment should be expanded in order to encompass current societal ideals. The following section identifies a number of new pains of imprisonment. It also revisits two of Sykes' (1958) pains of imprisonment and expands each to accommodate new research and modern society.

### Culture Shock

In discussing the pains of imprisonment, Sykes (1958) fails to identify and discuss the culture shock experienced upon entry into prison. Culture shock is defined as:

*...the anxiety that results from losing all our familiar signs and symbols of social intercourse (Oberg, 1960, p. 177).*

Entering prison can be an overwhelming, disruptive, and disorganising experience (Gibbs, 1982, p. 100). Prisoners are cut off from family and friends and introduced to a new regime

most likely dissimilar to that of their 'normal' reality. Taft (1977, p. 140) suggests that individuals suffering from culture shock experience psychological strain, confusion over roles, values, feelings and self-identity, surprise and unease at the new culture, an inability to cope with the new environment, a sense of personal loss as a result of losing friends, status and possessions, and feelings of rejection by new members of the new culture.

#### Drug and Alcohol Withdrawal

Another pain of imprisonment commonly overlooked in the past is the physical and psychological effects of withdrawing from drugs or alcohol. With a large portion of prisoners engaging in drugs and alcohol, it is necessary to address these issues in order to assist prisoners physically, mentally and emotionally. While prison provides services to inmates such as drug and alcohol programs and supplement medications (i.e., opioid treatment supplement), only a small portion of prisoners access these services (AIHW, 2015).

#### Deprivation of Positive Social Interaction and Support

In identifying deprivation of heterosexual relationships, Sykes (1958) fails to include non-conventional relationships (i.e., homosexual relationships). Stohr and Walsh (2011) suggest that 'deprivation of heterosexual relations' should be amended to a more generalised 'deprivation of sexual relations' due to recent societal and cultural changes. However, perhaps it would be more appropriate to go beyond this and define it as the 'deprivation of positive social interaction and support'. According to Woodward (2003) prison is not an environment conducive to establishing or maintaining relationships. Prisoners are isolated from their family and friends and confined to a hostile and isolated environment. In prison, inmates wear an emotional and behavioural 'prison mask' that is unrevealing and impenetrable to protect themselves, making it difficult to establish and maintain relationships pre- and post-release, as it creates distance between themselves and others (Haney, 2012). In addition, maintaining current relationships is difficult in prison due to the inability to contact the outside world. Not only are prisoners located in desolate areas making visitation problematic, but restrictions are also placed on prisoners' communication with inmates required to request permission to make phone calls. Additionally, prisoners are commonly less educated than that of the general population with 80% of Australian prisoners failing to complete secondary education (AIHW, 2015). Therefore, written communication can be difficult and with letters subject to scrutiny by prison staff, inmates may not be willing to write personal information for fear of its misuse.

### Deprivation of Autonomy

While Sykes (1958) identified the loss of freedom and loss of control, he failed to identify the lack of respect that culminates between inmates and staff and the subsequent disintegration of inmate-staff relationships. Although prison is an environment where individuals are punished for crimes committed, there is still a duty of care to treat prisoners with humanity, dignity, and respect. While it is commonly believed that offenders lose their rights upon incarceration, international laws dictate that while prisoners lose their right to liberty, they still maintain their rights to life, security, privacy, healthcare, education, humanity and dignity (Universal Declaration of Human Rights, 1948; Standard Minimum Rules for the Treatment of Prisoners, 1955; International Covenant on Economic, Social and Cultural Rights, 1966; International Covenant on Civil and Political Rights, 1966).

### Deprivation of Security...and Privacy

In identifying deprivation of security, Sykes (1958) fails to recognise the lack of privacy and its impact on prisoners physically and psychologically. Prisoners live in extremely close quarters that afford little privacy and are subject to not only surveillance by prison staff, but also other inmates. Research examining relationships among inmates and between inmates and prison staff has found that prison environments are conducive to more frequent incidents of interpersonal conflict, aggression, and violence (Gaes & McGuire, 1985; Gunby, 1981; Haney, 2012; Huey & McNulty, 2005; Lawrence & Andrews, 2004; Megargee, 1977; Steels & Goulding, 2009; Victorian Ombudsman, 2014). When people are forced to share cells, there is an increased risk of intimidation, bullying, and violence because privacy and personal security are violated (Mackay, 2015). Furthermore, increasing prison numbers have resulted in overcrowding which can adversely affect living conditions, jeopardise prisoner safety, impact prison management, contribute to prisoners' poor mental and physical health, increase levels of violence and risk of suicide and limit access to meaningful programming and treatment (Haney, 2002).

## THE NEED FOR ALTERNATIVE MEASURES

*...prison as a tool....doesn't do what it's supposed to do, or it doesn't do it well, or it does it at huge cost.....We assume it deters people from crimes...deterrence works for people like you and me, who think about consequences and would not commit the offences anyway. It doesn't work for drug addicts, it doesn't work for alcoholics, it*



*doesn't work for people who are mentally ill (Christine Wheeler, QC in Rubinsztein-Dunlop, 2014).*

Given the information about the costs, conditions and collateral consequences associated with the current system of corrections, investing in effective prison programs “may be one of the best investments” to make (Petersilia, 2000, p. 6). While political leaders have tried to reduce reoffending rates by implementing additional and more punitive strategies, there is little to no evidence to show that these tougher sentencing strategies have a positive impact on recidivism rates (Lulham *et al.*, 2009; Trevena & Weatherburn, 2015). Instead, however, there is strong evidence to suggest that these harsh punitive measures increase rather than decrease crime (Baldry *et al.*, 2006; Bales & Piquero, 2012; Clemmer, 1940, p. 300; Sykes, 1958). As such, it has been suggested that a shift needs to be made from exclusive sentencing and corrections policies towards those that balance incarceration, rehabilitation and just punishment (Petersilia, 2000). Given that the majority of prisoners will be released from prison at some point in their lives, with only .02% of prisoners expected to serve a life sentence, it is important to ensure that upon release ex-prisoners will become healthy and productive law-abiding citizens (ABS, 2015). As Haney (2012, p. 15) asserts,

*...this fact alone underscores the importance of addressing what happens to people during imprisonment.*

He further notes, that the era of mass imprisonment has left a very expensive prison system badly overcrowded and under resourced that does “little more than warehouse their captives”. Smith *et al.* (2002, p. 21) support this notion by noting, “the enormous costs accruing from the excessive use of prison may not be defensible.” As Johnson and Chernoff (2002, p. 148) note that while

*[p]rison is a setting of punishment, an institution of confinement and work...for inmates, prison is also their home.*

Therefore, it is necessary to provide prisoners with opportunities to maintain their physical and mental health through socialisation and education. The present study aimed to address this gap by examining the benefits of PDPs and exploring participants’ perceptions of the benefits of a transitional, post-release dog program.

## CURRENT REHABILITATIVE MEASURES

Each state and territory in Australia offers a range of correctional rehabilitation programs in an attempt to address the shortcomings of incarceration. The Department of Corrective Services NSW (DCS NSW) (n.d.) identifies three main aims of rehabilitative programs: (1) to promote health, safety and well-being among offenders, (2) reduce the risk of re-offending, and (3) successfully reintegrate offenders into the community. There are a number of rehabilitation programs currently offered in Australian correctional settings including cognitive skills, drug and alcohol, anger management, violent offender, domestic violence and sex offender programs, as well as those programs that are delivered to special groups, including Indigenous and female offenders (Heseltine *et al.*, 2009). These programs are designed to assist prisoners to challenge and change their destructive behaviours by learning and developing life-enhancing skills that can assist them to succeed (DCS NSW, n.d.). However, a national report by the Australian Institute of Criminology (2009, p. 12) provided an overview of prison-based programs across all Australian states and territories, and concluded that in Australia there “appears to be little consistency in...the delivery of rehabilitative service in state, territory and federal correctional environments”. Similarly, a study conducted by Morgan *et al.* found that the majority (61%) of correctional programs failed to reach even a basic level of adherence to good practice principles. The report also noted that while numerous attempts to evaluate correctional rehabilitative programs have occurred, current evaluations have failed to answer questions about the effectiveness of rehabilitation in Australia and the value for money that these programs give to the community. As such, it is impossible to conclude with any confidence that prison-based offender rehabilitation programs have a positive impact on recidivism and public safety (Heseltine *et al.*, 2009, p. 41). The present study sought to address this gap in relation to one type of rehabilitative program; prison dog programs, and examine the potential for these programs to challenge and change offender behaviour. The goal was to develop a program logic model based on the findings to assist in the future development and implementation of such programs. This research does not intend to suggest that prison-based dog programs are the ultimate rehabilitative tool. Instead, the findings indicate that PDPs are an alternative and/or additional tool that can enhance existing offender rehabilitation program, models, and theories.

## STOPPING THE CYCLE OF CRIME

For decades, research has focused on why an offender commits crime and the risk factors associated with offending. This stems from the notion that an offender is sick or broken and needs to be fixed (Bogenschneider, 1996; Farrington, 1987). More recently, new research has examined why an offender stops committing crime rather than why they start (see Healy, 2010; Laub & Sampson, 2001; LeBel *et al.*, 2002, 2008; Maruna, 2001). While wider social issues such as overrepresentation of minority groups, poverty, public policy, transit patterns and other factors provide important context to offending, these ‘risk factors’ are not within the main focus of the present study. Rather, this research focuses on ‘protective factors’ which encourage an offender to desist from crime. Protective factors are characteristics, traits, or situations that protect individuals from problem behaviours and delinquency and produce positive outcomes (Rutter, 1999; Vanderbilt-Adriance & Shaw, 2008). Protective factors can include meaningful participation, supportive relationships and social bonding (Bernard, 1991). Studies show protective factors have two effects. Firstly, protective factors may directly influence risk by changing offender behaviour and secondly, protective factors can create a buffer from risk factors that may lead to criminal behaviour (Crosnoe *et al.*, 2002; Jessor *et al.*, 1995). The greater number of protective factors an individual possesses is positively correlated with fewer behaviour problems (Jessor *et al.*, 1995). This focus on protective factors and positive outcomes underpins a new line of research on why an offender stops offending even when risk factors are present. This theoretical notion is referred to as desistance.

## WHAT IS DESISTANCE?

Desistance has been defined in the literature many times; however, there is considerable variability and little consensus between definitions as shown in Table 3.1. The literal meaning of desistance is to stop, cease, or abstain from doing something (The Oxford Dictionary, 2017). However, this definition is inadequate as it simply views desistance as an event. No offender commits crime constantly, thus termination of offending occurs all the time, albeit temporarily (Maruna, 2001, p. 23). As a result, many have attempted to determine the period required to ascertain desistance. While some suggest a period of one year is sufficient, others suggest that desistance cannot be measured until after an offender dies (Maruna, Immarigeon *et al.*, 2013, p. 17; Warr, 1998). However, unlike recidivism, desistance is not a measurable event and as such, it is impossible to claim, confidently, that an offender has actually stopped offending. Laub and Sampson (2001) respond to these definitional issues by distinguishing between

termination, the time at which criminal activity stops, and desistance, the process that causes and supports the termination. While the study of termination asks the question ‘why’, the study of desistance asks the question ‘how’? The main objective is to identify factors that maintains desistance from crime in order to assist in the development and implementation of pre- and post-release interventions (Kazemian, 2007, p. 7). While both termination and the process of desistance need to be considered to comprehensively understand cessation from offending, the idea of desistance as a process recognises that an offender can reoffend and be desisting from crime by reducing the frequency, severity and variety of offences.

Le Blanc and Loeber (1998) support this notion and identify four sub-processes of desistance: deceleration, which refers to a reduction in frequency prior to terminating offending; de-escalation, the return to a less serious form of delinquency; reaching a ceiling, which refers to a delinquent remaining at or below a particular level of seriousness in offending without further escalating to more serious acts, and specialisation, which refers to desistance from a versatile pattern of criminal activity to a more homogeneous pattern. Research examining the impact of desistance on recidivism has found that desistance-focused interventions are more likely to be effective than offence-focused interventions and as a result factors associated with desistance (e.g., employment) should be primary to factors associated with the origins of offending (e.g., unemployment) (Farrall & Maruna, 2004).

Table 3.1 Definitions of desistance (adapted from Kazemian, 2007)

<b>Study</b>	<b>Definition</b>
Farrington and Hawkins (1991)	<i>Conviction at age 21 but not between ages 21 and 32</i>
Farrington and Wikstrom (1994)	<i>Age at the last officially recorded offence up to age 25</i>
Haggård <i>et al.</i> (2001)	<i>During the follow-up period, no reconviction in the previous ten years</i>
Kruttschnitt <i>et al.</i> (2000)	<i>Absence of new officially recorded offences or probation violation throughout two year period</i>
Sampson and Laub (2003)	<i>Absence of arrest (follow-up to age 70)</i>
Loeber <i>et al.</i> (1991)	<i>Non offending throughout a period of less than a year</i>
Maruna (2001)	<i>Individuals who identified themselves as long-term habitual offenders, who claimed that they would not be committing offences in the future, and who reported at least one year of crime-free behaviour</i>
LeBel <i>et al.</i> (2002)	<i>Absence of reconviction after release from prison during a 10 year window</i>
Mischkowitz (1994)	<i>Last conviction having occurred before age 31 and lack of conviction or incarceration for at least ten years</i>
Pezzin (1995)	<i>Individuals who reported having committed offences in the past but who did not report any criminal income</i>
Sampson and Laub (1993)	<i>Juvenile delinquents who were not arrested as adults</i>
Shover and Thompson (1992)	<i>No arrests in the 36 months following release from prison</i>
Uggen and Kruttschnitt (1998)	<i>Behavioural desistance: absence of self-reported illegal earning during a three year follow-up period</i> <i>Official desistance: no arrests during a three year follow-up period</i>
Baskin and Sommers (1998)	<i>Consider two years to be adequate time to measure desistance</i>
Warr (1998)	<i>Individuals who did not report having committed any offences in the past year</i>

## ***Desistance vs. Rehabilitation***

The theory of desistance differs from other theories as it provides positive messages of hope. It is future oriented and involves working with the prisoner at the personal level to move past vulnerabilities, risks, and harms of offending to support their capacity to move or transition toward a different future (Graham, 2012, p. 8). The following quotes perfectly surmises the differences between rehabilitation and desistance (i.e., transformation):

*Rehabilitation seeks to change the way a person behaves; transformation changes how a person thinks. Rehabilitation looks to the past; transformation is future oriented. Rehabilitation often occurs externally; transformation originates from within...the aim of rehabilitation is to restore the individual to some former state that may or may not have worked for the individual in the first place. Transformation, on the other hand, works to completely transform the person's way of thinking (L.I.F.E.R.S, 2004, pp. 63-64S).*

## THEORIES OF DESISTANCE

A number of theoretical frameworks have been developed to explain criminal desistance. There are three main theoretical perspectives relevant to desistance research: maturational, social, and psychological theories. This section provides a review of each desistance theory and examines how a consolidation of all desistance theories into one theoretical framework could benefit rehabilitation programs, such as PDPs.

### ***Maturational Theories***

One of the earliest explanations of criminal desistance was the idea that offenders stopped committing crime once they reached a certain age. Quetelet (1984) was one of the first to examine the relationship between age and crime and found that crime peaked for many men in their late teens to mid-twenties. While some claim that increasing age alone results in a decline in criminal activity, others suggest that it is due to a maturation process (Glueck & Glueck, 1937; Hirschi & Gottfredson, 1983; Matza, 1964). Maturational theories suggest that as adolescents mature, they will become more concerned with others, act in more socially appropriate ways due to acceptance of societal values, will become more comfortable in social situations, will reflect activities that concern the community and will be more concerned with the meaning of life (Glueck & Glueck, 1937; Gove, 1985; Matza, 1964). While Glueck and Glueck (1937) are often credited with the formation of the maturational theory, Matza (1964,

p. 28) was the first to discuss the concept of ‘maturational reform’ suggesting that most delinquent behaviour should not be seen as a permanent state, but rather as a transient state.

### ***Sociological Theories***

Sociological theories aim to explain how external social processes impact on the process of desistance. Sociological theories of desistance include social learning theory, social control theory, and social capital theory. Sutherland’s (1934) social learning theory of differential association explains how social variables influence criminal behaviour. Whilst this theory is commonly used to explain the presence of criminal behaviour, it can also be used to explain its absence. Differential association theory claims that criminal behaviours are learned in the same way all behaviours are learned, through social interactions. The most important social variables according to this theory are the people with whom a person associates; the length of time and frequency of the association, how personally meaningful the associations are and how early in development they occur. According to Sutherland (1934, p. 6), in our intimate personal groups, we all learn definitions or normative meanings or messages, favourable or unfavourable to law violation. Delinquency is learned when deviant definitions and meanings outweigh normative ones. If a person’s intimate personal group consists of peers that have pro-criminal attitudes and values, it will increase the decision to engage in criminal behaviour. However, if a person’s intimate personal group has conventional societal attitudes their decision to engage in criminal behaviour will be less likely.

Social control theory (Hirschi, 1969), referred to as ‘age-graded social bond theory’ by Sampson and Laub (1993), suggests attachment to others and commitment to conventional institutions produce normative behaviour. It argues that when individuals, regardless of their childhood characteristics or risk factors enter into quality relationships created through family, friends, religion, marriage and/or work, an offender will desist from crime due to the informal social control exerted by the bond (Hirschi, 1969; Matza, 1964; Sampson & Laub, 1993). Hirschi (1969, pp. 16-26) asserts that there are four elements to social control theory: attachment, commitment, involvement, and beliefs. Attachment is the link between an individual and society. Commitment refers to the level of investment (i.e., time, energy, money) an individual has placed into an institution (i.e., school, work, religion). Involvement is the level of interaction and investment an individual places in an institution and beliefs refer to an individual’s acceptance of societal values and norms. Hirschi (1969, pp. 20-21) suggests that if an individual has invested in an institution and has built strong attachments within that institution, they are more likely to accept societal values and norms and less likely to offend

because they want to preserve their place within the institution and sustain the relationships built. Furthermore, Hirschi (1969, p. 22) asserts that involvement in an institution reduces the reoffending risk as the individual is “too busy doing conventional things to find time to engage in deviant behaviour”.

Social capital theory, emerged after a number of studies examined the existence of social relationships and their impact on desistance (Giordano *et al.*, 2002; Knight *et al.*, 1977; Uggen & Kruttschnitt, 1998). While these studies found no impact between social bonds and desistance, social capital theory suggests that it is not simply the existence of the relationship that impacts upon desistance. The quality of the relationship also makes a significant contribution to the cessation of crime. This is supported by Sampson and Laub (2003) who assert that social acts alone are not enough to promote desistance. Rather, it is a reaction to an enduring attachment that results in a change in behaviour. This idea led to the development of the social capital theory. Built upon social control theory, social capital theory specifies that it is the quality of the relationship and the quantity of time spent investing in the relationship that facilitates desistance. Brannigan (1997) asserts that under social capital theory an offender’s criminal desistance depends upon how much they have invested in their social relationships. For example, an evidence review of ‘what works’ by the Scottish Government asserts that as the quality of offenders’ relationships with the important people in their immediate social circles improves, they are more likely to want to live up to others’ expectations and sustain a crime-free lifestyle (Sapouna *et al.*, 2015).

### ***Psychological Theories***

While sociological theories explain how social processes impact desistance, they fail to recognise individual circumstances (Maruna, 2001). Psychological theories fill this gap and explain how individual differences in thinking processes can affect the desistance process. Psychological theories of desistance include offender narratives, cognitive theories, and rational choice theory. Maruna (2001) was one of the first researchers to claim an offender’s self-identity, or narrative, impacted desistance more than age or environmental factors associated with age. In his study analysing the narratives of 20 persisters and 30 desisters, Maruna (2001) found that the ways in which desisters and persisters tell their stories is directly connected to their identity transformations. The narratives of desisters were more likely to incorporate an optimistic outlook, self-efficacy, a silver-lining approach, in which the individual describes something good arising out of a bad experience, idealistic passion, sense of agency, generative concern, commitment to giving back and a sense of purpose and meaning



in life. The narratives of persisters, on the other hand, described themselves as victims of their environmental and social circumstance, who had poor families, lacked access to decent education, lacked financial freedom and saw crime and deviance as a way of taking back control. Since Maruna's (2001) research, additional studies have supported this theory and have shown that desistance is often precipitated by a cognitive shift, transformation or turning point that involves a reshaping of the individual's identity that is in line with a conventional lifestyle (Giordano *et al.*, 2002; Laub & Sampson, 2001; LeBel *et al.*, 2008; Runggay, 2004). Another psychological theory of desistance is the rational choice theory. Clarke and Cornish (1985) define this theory as an active decision to desist from crime. The rational choice theory of desistance suggests that offenders

*...weigh the costs and benefits of criminal and noncriminal opportunities and select the alternative with the greatest net benefit (Uggen & Kruttschnitt, 1998, p. 341).*

When the costs outweigh the benefits, an offender will cease offending. This notion is supported by Cusson and Pinsonneault (2014, p. 72) who interviewed 17 ex-offenders sentenced for robbery, and found that desistance was more likely to occur if precipitated by a shocking negative experience while committing a robbery, realisation of the likelihood of capture, increased unwillingness to go back to jail, anxiety about life of crime or an increased belief that criminal life is pointless.

### ***Integration of Social and Psychological Theories***

Little research has examined the interplay between subjective factors of crime and social variables in the process of desistance. Most discussions exclusively focus on subjective changes, such as rational choice explanations, or social changes (LeBel *et al.*, 2008). Farrall and Bowling (1999, p. 258) criticise existing research asserting it either treats individuals as

*... 'super-agents' who are free to act as they choose and can directly influence the outcome of their lives through their decision making, or as 'super-dupes' who react to wider social forces and situations rather than helping to create these situations through their own actions.*

Research suggests that offenders often experience multiple criminogenic needs and as a result, multi-modal, holistic interventions that address these needs are more likely to be effective in encouraging desistance (Sapouna *et al.*, 2015). While there are few coherent theories to explain

a holistic approach to criminal desistance, recent studies have identified that the process of criminal desistance is best studied by examining psychological and social variables simultaneously (Morizot & Le Blanc, 2007). It is suggested that one variable, either psychological or social, is the causal factor in desistance while the other acts as a mediator or moderator in the desistance process.

One of the first studies to attempt to integrate social and psychological variables was conducted by Giordano *et al.* (2002) who examined desistance among 97 female and 83 male African American and Caucasian offenders over a two year period. While quantitative results failed to find a significant relationship between marital attachment, job stability and desistance, the authors suggest that an individual must be open to or motivated to accept 'hooks for change', or the sources of social control, in order for these variables to aid in creating a new identity and encourage desistance. This idea is supported by Farrall and Calverley (2005, p. 112) who suggest that interventions are more likely to be successful if they target motivational factors and provide a sense of hope. Offenders, who are contemplating change, need to believe that an alternative future is possible and therefore it is worth changing to accomplish future goals.

## PROTECTIVE FACTORS ASSOCIATED WITH DESISTING OFFENDERS

Research has shown that social interactions, personal agency, employment, and engagement in altruistic activities either can positively or negatively impact on desistance. While positive social networks, such as church or volunteering may encourage desistance, negative social networks, such as criminal associations or old cellmates may encourage persistence. When protective factors positively impact desistance, they can do so in two ways; they can directly influence risk by changing offender behaviour and they can create a buffer from risk factors that may lead to criminal behaviour (Crosnoe *et al.*, 2002; Jessor *et al.*, 1995).

### *Social Networks*

Social wellbeing is seen by the World Health Organisation (2017) as integral to its definition of 'health'. It is not surprising then that one of the most frequently cited triggers of change is the formation of strong social bonds. Social bonds can be created through formal networks, such as schools or church, or informal networks provided by an individual's personal life (i.e., family and friends). Strong social ties to either formal or informal networks can facilitate desistance among offenders because they generate relationships that can provide offenders with opportunities for supervision and monitoring, a supportive environment, a change in structure and routines and identity transformation (Sampson & Laub, 2003). However, it is important

to note that it is not simply the social attachments that promote desistance; it is the perceived strength, stability and quality of the relationships that matter more than the relationship itself (Healy, 2010; Sampson & Laub, 2003).

### Familial Relationships

The presence of quality familial relationships, such as marriage, has been found to increase the likelihood of desistance while the absence of relationships, poor relationship quality or relationships with delinquent family members can decrease the likelihood of desistance (Farrington & West, 1995; Glueck & Glueck, 1950; Horney *et al.*, 1995; King *et al.*, 2007; Sampson & Laub, 2003; Shover, 1983; Warr, 1998). As the quality of offenders' relationships with the important people in their immediate social circles improves, they are more likely to want to live up to others' expectations and sustain a crime-free lifestyle (Healy, 2010). Strong family bonds can encourage desistance as they provide structure, a change in routine, peer associations, a new identity, and act as a source of informal monitoring and support (Laub & Sampson, 2003).

### Peers

Another social network that can impact an offender's likelihood of desistance is the presence and quality of peer associations. While the research provides strong evidence that desistance is more likely to occur after disconnecting with delinquent peers, the causal ordering of peer associations and criminal behaviour has been heavily debated (Warr, 1998). Do offenders seek out other offenders to associate with, or do individuals become offenders as a function of those delinquent peers? Research suggests that peer associations have a causal effect on delinquency, with studies showing that people who relinquish delinquent peer associations, often due to the development of strong social bonds are more likely to desist than those who associate with delinquent peers (Akers *et al.*, 1979; Ayres *et al.*, 1999; Farrall & Bowling, 1999; Giordano *et al.*, 2003; Maume *et al.*, 2005; Warr, 1998).

### Mentors

Mentoring has also been found to reduce reoffending, increase chances of employability and contribute to positive cognitive changes (Armstrong *et al.*, 2008). Mentoring can be an effective way of helping offenders build new social networks that can support the desistance process (Shapland *et al.*, 2012). For example, a good working relationship between an offender and their supervisor can act as a catalyst for change (Healy, 2010). Research has shown that offenders who are in regular contact with a supervisor have more positive experiences, higher

rates of compliance and lower rates of offending (Curran *et al.*, 2007; Ministry of Justice, 2010).

### ***Agentic-focused Interventions***

Research shows that offenders are more likely to desist from crime if they develop a sense of agency and control over their lives and a more positive outlook on their future. Agency was initially discussed under the topic of self-efficacy; however, it has since been termed ‘human agency’, which is defined as

*...the human capability to exert influence over one’s functioning and the course of events by one’s actions* (Bandura, 2009, p. 8).

Human agency asserts that people can play a part in their self-development, adaptation, and self-renewal (Bandura, 2009, p. 8). Desistance research suggests that desistance is more likely to result if an offender changes their “sense of identity and worldview and commits to the change” (Giordano *et al.*, 2002; Maruna & Roy, 2007, p. 115).

### ***Employment***

There is a consensus that stable employment promotes desistance from crime (Giordano *et al.*, 2002; Healy, 2010; Kazemian & Maruna, 2009, p. 28). However, the causal relationship between work and crime is much debated. While rational choice theorists argue that if the financial benefits of employment outweigh those available from committing crime, an offender is less likely to commit crime (e.g., Merton, 1938), others suggest that employment reduces the opportunity to commit crime and provides a set of responsibilities that provide the offender with an investment in the social bond and a disincentive to commit criminal acts (Hirschi, 1963; Matza, 1964; Sampson & Laub, 1990; 1993). While these explanations are often seen to be mutually exclusive, these theories should be seen to be congruent with each other. However, like social bonds, it is important to note that employment is not in itself enough to encourage desistance; rather the quality of the work has found to be a better predictor of desistance (Bottoms *et al.*, 2004; Farrall & Bowling, 1999; Healy, 2010; Henderson, 2001; Sampson & Laub, 1990; Uggen, 2000).

### ***Altruistic Activities***

Altruism is defined as a voluntary and intentional act performed with the primary goal of benefiting another being (Leeds, 1963). Research suggests that through participation in altruistic activities offenders gain a sense of satisfaction from helping others, giving back to

society, and developing a prosocial identity (Britton & Button, 2005, 2007; Button, 2007; Currie, 2008; Demyan, 2007; Lai, 1998; Strimple, 2003; Turner, 2007). Altruistic activities encourage people to act considerately towards one another, can address criminogenic needs, and put an emphasis upon community involvement and empowerment (Levenson & Farrant, 2002, p. 196). They can also encourage identity transformation as they provide offenders with the opportunity to enjoy reciprocal relationships, gain trust, and appreciation of other people, give back to the community, and recompense for crimes committed (McNeill & Maruna, 2007). Furthermore, altruistic activities can provide a link to employment by providing the opportunity for offenders to improve their skills and confidence and gain work experience and a reference. By acting as an employment gateway and teaching offenders to be able to cope better with the choices, pressures, and responsibilities of life outside prison, altruistic activities can play a valuable part in reducing recidivism.

## DOGS: A TOOL FOR PROMOTING DESISTANCE

Research examining the human-dog relationship provides evidence to suggest that dog-related activities have the capacity to satisfy factors needed to encourage desistance. Research has found dogs can facilitate communication, encourage social relationships, and provide social and emotional support that may be absent due to a lack of human companionship (Archer, 1997; Beck & Katcher, 1996, p. 153; McNicholas & Collis, 2000).

A number of studies have examined the impact of prison dog programs (PDPs) on recidivism and have found a positive correlation between participation in PDPs and a decrease in reoffending rates. While some found zero reoffending rates, others found that those who participated in PDPs reoffended at a reduced rate than those who did not participate (Chianese, 2010; Furst, 2007b, 2007a; Merriam-Arduini, 2001). In the only study examining the impact of PDPs on desistance, Furst (2007b, 2007a) notes that PDPs encourage desistance as they help to develop a prosocial identity in the offender, assist social interactions and provide the opportunity for offenders to give back to society. This is supported by a number of other studies that have found that PDPs are an altruistic activity that provides opportunities for agentic experiences and positive social interactions. In addition, PDPs have also been found to provide offenders with the opportunity to learn skills that will assist them in gaining employment, which has also been found to assist in the desistance process (Britton & Button, 2005, 2007; Button, 2007; Currie, 2008; Demyan, 2007; Furst, 2006, 2007a, 2007b; Healy, 2010; Lai, 1998; Strimple, 2003; Turner, 2007).

## THE HUMAN-ANIMAL BOND

Commonly referred to as ‘man’s best friend’, dogs are never far away from most people’s lives. Archaeological evidence indicates that the dog was the first species of animal to be domesticated (Clutton-Brock, 1995, p. 10). However, objective understanding of the evolution, domestication, and behaviour of the dog within the context of the human-animal bond is surprisingly scarce (Lubbock, 1889; Udell & Wynne, 2008). As Lubbock (1889, p. 272) notes,

*The man and the dog have lived together in more or less intimate association for many thousands of years, and yet it must be confessed that they know comparatively little of one another. That the dog is a loyal, true, and affectionate friend must be gratefully admitted, but when we come to consider the psychical nature of the animal, the limits of our knowledge are almost immediately reached.*

Although the term human-animal bond was not coined until the late 1970s in Scotland, Boris Levinson was the first to recognise and document the special relationship between humans and animals after witnessing the benefits his dog brought to his therapy sessions with children (Levinson, 1969). The human-animal bond can be defined as:

*... [a] mutually beneficial and dynamic relationship between people and other animals that is influenced by behaviours that are essential to the health and wellbeing of both. This includes, but is not limited to, emotional, psychological, and physical interactions of people, other animals, and the environment (Wollrab, 1998, p. 1675).*

Archaeological evidence suggests that humans and dogs have shared a special voluntary relationship for thousands of years. Most of our knowledge on the history of the possible existence of a human-animal bond comes from burials, which reveal a strong and compelling indication of the special relationship between people and dogs (Morey, 2006, pp. 159, 171). Evidence retrieved from these burials suggest that in death, dogs were treated like deceased people – “they were buried as if they were someone’s best friend” (Griffin, 1967, p. 178). Often when dogs were buried with humans, the bodies were carefully placed next to each other, often touching. For example, Davis and Valla (1978, p. 608) describe the following:

*The human skeleton....lay flexed on its right side...its left wrist was partially under the forehead and hand upon the thorax of a puppy, which has evidently been buried complete with the human.*

Webb (2001, p. 158) also notes the care in which the dogs were buried either by themselves or with people:

*It appears that the dog's body was intentionally arranged to take a position similar to the human skeleton. The left foot and nose of the dog skeleton rests upon the left shoulder of the human skeleton.*

There have also been suggestions that humans paid their respects at the death of a dog by placing items of significance near the dog (Kerber, 1997). Morey (2006, p. 164) asserts that such treatment upon burial indicates a special bond between people and dogs that supersedes purely pragmatic considerations. He further asserts that although some dogs were ritualistically killed, they were still treated very much like people in death. They were buried with the kind of care that signifies friendship, symbolic of a projected after life in the spirit world.

There has been much speculation around why humans formed a special bond with dogs over other animals. Many would predict that apes, our closest relatives, would have made a better companion, but research has shown that dogs have a greater ability to communicate with humans than that of other animals, even our nearest primate relatives (Bräuer *et al.*, 2006; Hare *et al.*, 2002). Research suggests that dogs have a remarkable ability to read and process human social cues (Bräuer *et al.*, 2006; Hare *et al.*, 2002). Schleidt and Shalter (2003, p. 62) suggest that this ability is the key ingredient for dogs fitting so well into our human social fabric. Dogs are profoundly skilled at reading human social and communicative behaviour, such as pointing gestures, head jerks or eye movements to find hidden food, they recognise what the humans can and cannot see in various situations and in some cases they can demonstrate strong ability for language learning (Call *et al.*, 2003; Hare & Tomasello, 1999, 2005). While it has been suggested that domestic dogs simply inherited the predisposition to attend to human social stimuli from wolves, when dogs were compared with wolves and wild foxes on tasks involving social cues, domestic dogs made significantly more correct responses on choice paradigms where social cues serve as the discriminative stimuli. This suggests that a dog's ability to read human communicative behaviour is a result of convergent evolution with humans and a by-

product of domestication rather than a genetic predisposition (Hare *et al.*, 2002; Hare & Tomasello, 2005).

Whilst it is unclear exactly when, where, how and why the wolf (*canis lupus*) evolved into the dog (*canis lupus familiaris*), there is no doubt that wolves and Homo sapiens came into regular contact with one another (Morey, 1994, p. 339). Bones of wolves have been found in association with those of early hominids from as early as 400,000 years ago (Clutton-Brock, 1995, p. 8). Both were social species who hunted many of the same prey items. Furthermore, wolves were opportunistic feeders and were likely to become familiar with human hunting practices to scavenge for scraps around human campsites (Morey, 1994, p. 339). Schleidt and Shalter (2003, p. 68) suggest that hominids and wolves gradually learned to co-operate with each other due to the evolutionary advantages each presented. Although these tamed wolves were generations away from the true domesticated dog, they were the precursors to the dog we know and see today (Clutton-Brock, 1995, p. 10). Their descendants became hunting companions, guards, sled pullers, beasts of burden, child substitutes, toys, food, human substitutes in experiments, and the first astronauts to circle our planet (Schleidt & Shalter, 2003).

### ***Evolution of the Dog***

The dog family or *Canidae* is a biologically cohesive group of carnivorans that is divided into thirty-five species, including wolves, jackals, foxes, and the domestic dog (Wilson & Reeder, 2005, p. 573-586). There has been much debate over when, where, how and why the domestic dog originated, with dates ranging between 10,000 and 135,000 years, and whether it had single or multiple origins (Clutton-Brock, 1995, p. 8; Morey, 2006, p. 166). There are two related but different kinds of evidence collected to describe the process of dog domestication; skeletal remains and genetic testing. Archaeological evidence from burial sites suggests that the dog originated at least 14,000 years ago (Nobis, 1979 as cited in, Udell & Wynne, 2008). Genetic research on the evolution of dogs, however, suggests that the dog may have first split from the wolf as long as 135,000 years ago (Vilà *et al.*, 1997). A study conducted by Vilà *et al.* (1997) sequenced a portion of mitochondrial DNA of wolves and domestic dogs to identify the origin of the domestic dog. Results indicated that no dog sequence differed from a wolf sequence by more than 12 substitutions, whereas the dog differed from coyotes and jackals by more than at least 20 substitutions. These results suggest that the grey wolf (*canis lupus*) is the closest living relative to the current domestic dog, and clearly support the notion of the wolf as the ancestral progenitor of the dog. In addition to these results, a relative rate test, a genetic test that



compares mutation and evolutionary rates between two related species, revealed that dogs could have originated more than 135,000 years ago. While Vilà *et al.* (1997) acknowledge that this could be an overestimation; they assert that the evidence still implies an origin more ancient than 14,000 years as proposed by archaeological evidence. They suggest that early domestic dogs may not have been morphologically distinct from their wild counterparts, which would explain the discrepancies in dates. Regardless of these large date discrepancies, archaeological investigations suggest a symbiosis between humans and dogs, supporting the notion of the human-animal bond and the use of animal-assisted therapies (Clutton-Brock, 1995, p. 18).

### ***The Domestication Process***

Domestication is the result of two interwoven processes, one cultural, and the other biological. Traditional anthropological definitions of domestication consider domestication to be a cultural process whereby animals were deliberately selected by humans to become objects of ownership, inheritance, purchase, and exchange (Clutton-Brock, 1995, p. 15). Domestication as a man-made process suggests that humans saw the potential benefits of animals and subsequently isolated individuals of a particular species from their wild counterparts and selectively bred them to emphasise or exaggerate desirable physical and/or behavioural traits and reduce or eliminate undesirable ones in a process called artificial selection (Belyaev & Trut, 2009; Morey, 1994). As Belyaev and Trut (2009, p. 417) note,

*...the reorganisation of the genetic basis of reproduction...might have evolved through selection for certain behavioural responses, which may be especially characteristic of the early stages of domestication.*

Domestication in this view is a human invention, devised by people to benefit people (Morey, 2010, p. 58). Some of the potential benefits man saw in the wolf and/or early dog include their ability to guard, herd and hunt, to protect family and property and their capability for friendship (Groves 1999, as quoted in Coppinger & Schneider, 1995, p. 22; Schleidt & Shalter, 2003, pp. 67, 70).

Domestication as a man-made process has been challenged by the hypothesis that animals colonised anthropogenic environments of their own volition and evolved into a new domestic species via a biological or natural evolutionary process. This evolutionary view of domestication suggests that animals change over time, through generations, in response to natural selection imposed by the human community and its environment, and by artificial

selection for economic, cultural, or aesthetic reasons (Morey, 1994, p. 336). For dogs to survive in human society they had to adapt to new social rules and an altered diet (Morey, 1994, p. 339).

Another theoretical explanation of the process of domestication is that of co-evolution. This perspective uses Charles Darwin's *Origin of Species* (1959) as the framework and assumes that both man and dog are animals (Paxton, 2000, p. 6). It assumes that since the advent of urbanisation or the new ecological niche, the relationship between man and dog became closely woven and richly interdependent. Alexander (1990) notes that the survival of human groups was achieved through a process of co-operation to compete in a challenging and sometimes hostile world. As human capacity for organisation developed so did the capacity for associated animals to fit into that organisation. They adapted gradually and their progeny survived. These animals were not created by human beings through a process of domestication; over time, they simply became. Lawrence (1988) states that it does not matter whether people liked dogs or not, it matters only that communities with dogs tended to survive more frequently than those without dogs. Human beings and dogs are both animals shaped by the human society in which they evolved. Therefore, part of what defines a human being is an association with dogs, and vice versa. As Paxton (2000, p. 6) asserts, "the two animals are aspects of each other." This naturalistic perspective shows that the apparent usefulness of a dog as a companion may be a symptom of deep human need (Paxton, 2000, p. 7). Schleidt and Shalter (2003, p. 70) also note that in addition to satisfying human needs, dogs complemented human skills. Levinson (1969, p. 5) supports this idea as he identifies two types of domesticated animals – "a servant of man" and "an animal pet" – that they assert were used to satisfy two basic human needs; the former to satisfy a man's soma and the latter to satisfy his psyche. The domestication of dogs, whether by man or evolution, suggests that humans and dogs sought each other out to pursue a mutually beneficial relationship, again supporting the notion of the human-animal bond.

## THEORETICAL PERSPECTIVES OF THE HUMAN-ANIMAL BOND

In an attempt to provide support for the human-animal bond, a number of theoretical perspectives were established including social support, psychological, attachment, and evolutionary theories. The theory of social support, made popular by Cassel (1976) and Cobb (1976), suggests that humans need social companionship. Cobb (1976, p. 300) defines social support as

*...information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligation.*

Research suggests social support can provide a wide variety of positive health benefits (Lynch, 1977, 2000). Initially, the notion of social support most commonly referred to *people* providing support for other people. However, more recently, it has been suggested that animals can fulfil this need for companionship (Katcher *et al.*, 1989). Research suggests that animals, particularly dogs, can enhance human-human contact, eliciting communication and trust among strangers and provide social and emotional support that may be absent due to a lack of human relationships (McNicholas & Collis, 2000; see also Messent, 1983).

A similar theoretical perspective that aims to explain the human-animal bond is attachment theory (Bowlby, 1969). Attachment theory asserts that humans have an inherent need for close emotional bonds with others in order to enhance survival. The way these needs are met shapes later relationships and emotional stability (Andrews, 2010). Bowlby (1969) proposed that over time the attachment between mother and child shapes a goal-corrected system for balancing two behavioural systems key to infant adaptation: attachment, which motivates the infant to seek safety and protection; and exploration, which motivates the infant to explore unfamiliar people, objects and surroundings. While attachment theory was originally explored in the context of the attachment between infants and caregivers, research has shown that the human-animal relationship is similar to that of a mother, spouse, or child (Archer, 1997; Katcher *et al.*, 1989; Serpell, 1996). One characteristic of attachment behaviour, according to Bowlby (1969, p. 182), is proximity seeking. Research has shown that dogs demonstrate proximity-seeking behaviour when dealing with stress (Schöberl *et al.*, 2012). Gácsi *et al.* (2013) propose that the presence of a human can moderate the effects of a stressful event and create a safe haven for the dog. Dogs have also demonstrated the secure base effect, where the presence of a secure attachment figure enables dogs to investigate novel objects (Horn *et al.*, 2013). In addition to dogs displaying attachment behaviours similar to that of infants, the attachment relationship between humans and animals can also serve a similar purpose for humans. Ainsworth (1972, p. 118) asserts that although attachment and exploration begin in infancy, they operate in dynamic equilibrium throughout the lifespan to fulfil functions required for survival including the need for safety and security; understanding and awareness of one's environment; and the capacity to adapt to one's surroundings. Research has demonstrated that the presence of animals can alleviate stress in humans and can assist humans to investigate novel surroundings

and encounter strangers (Allen *et al.*, 2002; Friedmann *et al.*, 2007; Katcher *et al.*, 1989; McNicholas & Collis, 2000; Nepps *et al.*, 2014; Odendaal & Meintjes, 2003).

Another theoretical perspective that supports the human-animal bond is the application of the self-psychology theory to the human-animal relationship (Anderson, 2008, pp. 21-22). Self-psychology is a psychoanalytically oriented theory of human psychology that was developed by Kohut (1971). Self-psychology theory posits that it is through reactions and interactions with humans that animals can satisfy three basic needs that are critical to human growth and development. In self-psychology, two of the main concepts are 'self' and 'self-object'. The 'self' is a psychological structure that is the core of the personality and gives a person a sense of wellbeing, self-esteem, and general cohesion (Wolf, 1988, p. 27). Wolf (1988, p. 26) suggests that to maintain a healthy sense of self, people need certain responses (i.e., empathy and soothing, affirming, sustaining or calming responses) from the environment that will maintain and promote this sense of self. These responses are provided by 'objects' (i.e., people, animals, things, experiences or ideas) that "evoke, maintain and give cohesion to the self" (Wolf, 1988, p. 63). According to Kohut (1984, pp. 192-193), objects serve three functions that help maintain a sense of self. These three needs are mirroring needs, the need to be admired and appreciated by others; idealising needs, the need to idealise and feel close to and supported by a significant other; and alter ego needs, the need to be with like-minded souls. Mirroring self-objects can sustain the self by providing affirmations, confirmations, and recognition of the self (Brown, 2004). The following quote from Alper (1993, p. 262) provides an example of how a dog can serve mirroring needs:

*In the privacy of her room, Hilary conducted poetry readings in which her dog was the enthusiastic audience. The dog sat attentively through the readings, and when Hilary enthusiastically asked, "Did you like it?" the dog would wag her tail, lick her mistress, and jump up and down. She responded with enthusiasm and activity, a rough equivalent of the attuned responsiveness Hillary's parents were unable to provide. The dog provided Hilary with a positive image of herself, reflected back her own natural joy in her creative productions. Her internal experience of excitement was validated, allowing her to develop an awareness and appreciation of her own creativity. Through her dog, Hilary saw mirrored a worthwhile, interesting, and expressive self, and it was this mirroring response that made her feelings and actions meaningful.*

Alper (1993, pp. 261-262) also highlights how a pet can serve idealising needs by providing the opportunity to be accepted and admired:

*Hilary revealed that she had spent a great deal of time training them in obedience classes and entering them in professionally judged competitions. This aspect of her relationship with, one dog in particular, was, I believe, central in providing an idealizing self-object function....Showing her dog, an extension of herself, Hilary with an avenue for the development of her thwarted narcissism, channelling it into a form that was given public and familial approval. The dogs provided her with an opportunity to feel proud and worthwhile.*

Another theory that aims to explain the human-animal bond is the biophilia hypothesis, which suggests humans have an innate tendency to associate with other animals. Conceptualised by Fromm (1964), this theory proposes that there is a natural connection linking people and other living things. According to Wilson (1984, p. 1), biophilia is the innate human tendency to affiliate with life and lifelike processes. The biophilia theory also suggests that animals are environmental sentinels of danger or safety and can assist humans to survive. This implies that friendly, calm animals are likely to have a calming effect upon human mood, while aggressive animals are likely to have the opposite effect (Fine & Melson, 2010). This theoretical perspective is particularly poignant in studies of pet therapy among prisoners. While research supports the positive calming effects that dogs have on prisoners, additional research is needed to examine whether distressed or anxious dogs are suitable for the prison environment as they may convey messages that the environment is not safe, and thus increase the discomfort of prisoners and encourage negative behaviours in prisoners (Britton & Button, 2005, 2007; Turner, 2007).

## DOGS AS THERAPY

As discussed previously, dogs have shared a special relationship with humans for thousands of years; however, the idea that dogs can benefit humans did not emerge until the late seventeenth century. Although the use of dogs in therapy can be traced back to 1693 with Locke (1693, p. 131) suggesting that giving children dogs and other animals would encourage them to develop tender feelings and a sense of responsibility for others, the use of dogs as a treatment intervention was not documented until 1860 after a variety of small and domestic animals, including dogs, were introduced into Bethlem Hospital in London. An evaluation of Bethlem

hospital during the 1830s had suggested implementing “domestic or social animals” to create a more pleasing and less prison-like atmosphere. In 1860, it was reported that the women’s ward of the hospital was “cheerfully lightened, and enlivened...with aviaries and pet animals,” and that the patients would “[pour] out their woes...to the dogs and cats” (Sala, 1862, p. 7).

A variety of terms has been used to describe animal-assisted interventions. This includes animal-assisted therapies, animal-assisted activities, pet therapy, pet psychotherapy, pet-facilitated therapy, pet-facilitated psychotherapy, four-footed therapy, animal facilitated counselling, pet-mediated therapy, pet-oriented psychotherapy, companion-animal therapy, and co-therapy with an animal (LaJoie, 2003). While many use these definitions interchangeably, it is important to note the difference between animal-assisted therapies (AAT) and animal-assisted activities (AAA). The Delta Society in the US, now known as Pet Partners, published the following definitions in an attempt to promote standardisation of terminology:

*AAT is a goal-directed intervention in which an animal that meets specific criteria is an integral part of the treatment process. AAT is directed and/or delivered by a health/human service professional with specialized expertise, and within the scope of practice of his/her profession. AAT is designed to promote improvement in human physical, social, emotional, and/or cognitive functioning [cognitive functioning refers to thinking and intellectual skills]. AAT is provided in a variety of settings and may be group or individual in nature. This process is documented and evaluated.*

*AAA provides opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life. AAA is delivered in a variety of environments by specially trained professionals, para-professionals, and/or volunteers, in association with animals that meet specific criteria (Kruger & Serpell, 2006, pp. 22-23).*

As illustrated by the definitions the main difference between AAT and AAA is the presence or absence of a licensed counsellor or therapist who co-ordinates specific, therapy-related goals. AAA will be primarily referred to in this dissertation, as the majority of PDPs rely on volunteer dog handlers or representatives from animal-welfare, training organisations. However, AAT will not be excluded because PDPs can involve structured therapy sessions.

## THE ROLE OF DOGS IN ANIMAL-ASSISTED ACTIVITIES

A substantial amount of research has been conducted on the effects dogs can have on their human counterparts. This research has led to the commonly held view that dogs are good for us as they can *prevent* us becoming ill, *facilitate* recovery and *predict* certain types of underlying ailment (Wells, 2007, original emphases). Although the use of animals in health care has been around for centuries, the earliest known use of dogs to achieve specific therapeutic goals occurred in 1792 at a Quaker psychiatric retreat in York in England (Chandler, 2012, p. 18). Since then, dogs have been used in a variety of health care settings including hospitals, psychiatric facilities, nursing homes, rehabilitation centres, and paediatric facilities.

Studies examining the physical impacts of dog ownership on humans have found a positive correlation between human-dog relationships and health; or specifically, individuals who regularly interact with dogs are a healthier group of people compared to those who do not have regular contact with dogs (Headey *et al.*, 2008; Serpell, 1991). For example, in a study conducted by Headey *et al.* (2008) female dog owners aged 25 to 40 living in China ( $N = 1516$ ) were reported to have fewer doctors' visits and took fewer sick days than non-dog owners ( $N = 1515$ ). This study also found dog owners exercised more frequently, slept better and had higher self-reported health and fitness levels compared to non-dog owners. Similar findings were reported by Serpell (1991) who studied dog ( $N = 47$ ) and cat owners ( $N = 24$ ) for ten months following the adoption of their pet. Participants reported a significant reduction in minor health problems such as headaches, hay fever, painful joints, insomnia, tiredness and digestion problems for both dog ( $p = 0.0001$ ) and cat ( $p = 0.001$ ) owners one month following adoption. Interestingly, the effects persisted to six months ( $p = 0.0001$ ) and ten months ( $p = 0.02$ ) for dog owners but were no longer statistically significant for cat owners after six months. Whilst it could be argued that dog owners' improvement in health could be attributed to other factors associated with owning a dog such as increased exercise, studies examining the physiological responses of humans have found that during interaction with dogs, humans with little or no canine experience also exhibit a decrease in blood pressure, an increase in oxytocin, a decrease in cortisol levels and a reduced heart rate (Allen *et al.*, 2002; Campo & Unchino, 2013; Handlin *et al.*, 2011, 2012; Nepps *et al.*, 2014; Odendaal & Meintjes, 2003; Odendaal, 2000).

Furthermore, it has been found that dogs can be used as a diagnostic tool for ill health (Wells, 2012). Studies have shown that both trained and untrained dogs can reliably predict the onset of epileptic seizures, non-epileptic seizures, the presence of cancer, specifically bladder, skin, lung, breast, ovarian and prostate cancers, and can also identify hyperglycaemia (Dalziel *et al.*, 2003; Di Vito *et al.*, 2010; Doherty & Haltiner, 2007; Gordon *et al.*, 2008; Horvath *et al.*, 2008; Kirton *et al.*, 2004, 2008; Krauss *et al.*, 2007; Lim *et al.*, 1992; McCulloch *et al.*, 2006; O'Connor *et al.*, 2008; Ortiz & Liporace, 2005; Pickel *et al.*, 2004; Stocks, 2002; Strong *et al.*, 1999; Tauveron *et al.*, 2006; Wells *et al.*, 2008; Williams & Pembroke, 1989; Willis *et al.*, 2004). Although it is unclear how dogs anticipate or detect these illnesses, the most obvious explanation is that a dog's remarkable sense of smell can detect specific odour cues (Wells, 2012). While dogs who are trained to detect odour are impressive, it is the dogs that provide spontaneous responses that are the most relevant to the human-animal bond. While the majority of studies use dogs trained in scent detection, there are a number of studies that found untrained dogs are just as adept at detecting cancer and seizures as trained dogs (Dalziel *et al.*, 2003; Di Vito *et al.*, 2010; Kirton *et al.*, 2004; Miller, 2013; Oxley, 2014; Williams & Pembroke, 1989). As a result of these findings, dogs are being used in therapeutic interventions around the world in a variety of health care settings. The following quote sums up the therapeutic effects a dog can have:

*A 5-year-old suffering from a severe infection lies quietly in her hospital bed late in the afternoon as tears roll down her face. She has become inconsolable today, and the nurses cannot figure out why. A small beagle named Barney walks into her room and studies the girl's face. When the child reaches out to it, Barney hops up onto the chair next to her bed. The girl smiles for the first time all day as she touches the therapy dog's velvety ears and reveals what is troubling her the most: she saw that her grandma and people on television died after they had an IV and now she has one too. After the child confides this fear aloud while talking to Barney, it enables the nurses to do a better job of allaying her anxieties (Jalongo *et al.*, 2004, p. 10).*

The use of dogs has also been applied to school settings. Research examining children's interactions with dogs, shows that dogs can have a positive impact on children physically, emotionally, socially and developmentally. Canine-assisted reading is one type of program where a therapy dog and the volunteer handler sit and listen to a child read. Typically, these programs focus on children that have difficulties with reading and writing. Evaluations of



canine-assisted reading programs reveal that these programs engage discouraged and disconnected readers, improve a child's reading skills, increase motivation and increase positive interactions with peers (Fisher & Cozens, 2014; Lloyd & Sorin, 2014; Newlin, 2003). Katcher *et al.* (1983) also found the presence of a dog lowered blood pressure and heart rate when a child reads aloud. As a result of the reported benefits of the human-dog bond, therapeutic programs involving dogs have been implemented in a variety of settings including prisons (Schultz, 2006, p. 1).

## PRISON DOG PROGRAMS

Prison dog programs (PDPs) involve a puppy or dog being paired with one or more specially selected inmates, who train, socialise and care for the animal for a specified period until the animal is ready to move on to advanced training as an assistance dog, or be rehomed as a pet. While the Washington Correctional Centre of Women is commonly acknowledged as the first prison to implement a PDP in 1981, a PDP was implemented in 1974 in Australia at Beechworth Training Prison in Victoria (Walsh & Mertin, 1994). Since then, various types of PDPs have been implemented in Australia and around the world.

Furst (2006; see also Furst, 2011) conducted a national study in the US to provide an overview of the types of programs implemented. She found that there were five types of PDP models including community service programs, service animal socialisation programs, visitation programs, and vocational programs. Community service programs involve inmate handlers caring for abandoned or unwanted dogs obtained from local rescue centres, animal shelters or local pounds, and retraining and resocialising them to increase their adoptability chances. Once the dogs complete the program, or a forever home is found (whichever comes first), these dogs are adopted out to the community as pets. Another popular program design is the service animal socialisation program, in which prisoners raise and care for puppies (typically Labradors) who are bred and trained to become assistance dogs for people with a physical or mental disability. Assistance Dogs International (2016) identifies five types of assistance dogs: guide dogs, hearing dogs, service dogs, facility dogs, and therapy dogs. Typically, PDPs involve training guide dogs, service dogs, and therapy dogs. Another less common PDP design is visitation programs, which involve volunteer owners with their pet dogs visiting the prison for a specified period, typically one hour. These programs provide prisoners with the opportunity for increased positive social interactions. Another popular design is the vocational programs, a multi-model program that incorporates training based qualifications in animal care

and/or grooming with either a community service or service animal socialisation program. Table 3.2 summarises the types of PDP models.

*Table 3.2 Description of PDP models (adapted from Furst, 2006).*

<i>Community service</i>	Inmate trainers train and care for animals, which are then adopted out to the community.
<i>Service animal socialisation</i>	Puppies are raised and trained to become assistance or service dogs for individuals with physical or mental disabilities.
<i>Multimodal</i>	A mix of two programs or more. Typically includes vocational programs and community service or service animal socialisation programs.
<i>Visitation</i>	Companion animals are brought into correctional facility by not-for-profit organisations.
<i>Vocational</i>	Inmate trainers are trained and certified in animal studies or animal grooming handling and care.

## EXISTING PDP RESEARCH

While programs using animals in prisons is not a new phenomenon, there is relatively little empirical research to support its use, particularly in Australia. Although studies demonstrate positive findings, many are limited by their research design, specifically a lack of validated statistical analysis and small sample sizes (e.g., Fournier *et al.*, 2007). Despite this, however, studies examining PDPs expand on the current literature and support the notion that PDPs have many positive benefits for not only inmates but also corrections staff, prison culture, the dogs, and society. Furthermore, while the US has conducted the most research regarding PDPs, recent studies have been conducted across Europe, the United Kingdom, and Asia. Australia is still relatively behind in its research with only two published studies, one evaluation conducted over two decades ago (Walsh & Mertin, 1994), one literature review (Mulcahy & McLaughlin, 2013) and two unpublished evaluative studies (EECS, 2012; Mulcahy, 2011).

### ***Benefits to Inmates***

Research has found that PDPs have many positive physical, psychological, social, behavioural, vocational, and environmental benefits on inmates. While very few studies have examined the physical impact of PDPs, perhaps due to the problematic nature of gaining access to the prison

population and ethical restrictions, existing research suggests that PDPs can improve prisoners' health by reducing blood pressure and salivary cortisol levels (Katcher *et al.*, 1989; Koda *et al.*, 2016). Yet both of these studies reported inconsistencies in their findings. Katcher *et al.* (1989) monitored the blood pressure of 20 Black, male prisoners in a two-treatment crossover design – pets present and pets absent. While a reduction in blood pressure was evident during prisoners' interaction with a pet, there was no change in blood pressure when participants talked to the experimenter with or without their pets. However, prison is a hostile environment and prisoners are quick to learn to become hyper-vigilant and ever alert for signs of threat, creating suspicion and interpersonal distrust. This may partially explain findings from the study in which no changes were found in prisoner's blood pressure when talking to the experimenter regardless of whether their pet was present.

Similarly, Koda *et al.* (2016) measured the salivary cortisol of 72 male inmates in Japan before and after interaction with a therapy dog. Questionnaire surveys were also completed by the inmates as well as 48 dog handlers to examine the mood states of the inmates' pre and post session. No significant longitudinal changes in salivary cortisol were evident from pre to post test. However, significant decreases in salivary cortisol from pre to post test were evident in inmates diagnosed with psychiatric disorders ( $p = 0.001$ ). Furthermore, a significant correlation was found between inmates who selected a positive mood state in the questionnaire and a decrease in saliva levels ( $p = 0.001$ ). A decrease in saliva levels was also evident in inmates who selected a neutral face both pre and post-session ( $p = 0.01$ ). Questionnaires completed by the handlers, which aimed to assess inmate's interactional skills, suggested that the handlers found 93% of inmates non-problematic and 7% as difficult in relation to their ease of interaction. Inmates assessed as unproblematic showed significant decreases in salivary cortisol ( $p = 0.001$ ), compared to those identified as problematic ( $p = 0.05$ ). It should also be noted that although 7% identified some inmates as difficult, the interaction was still reported to be positive. This finding can be questioned as interpersonal relationships are subjective and the difficulty reported may have been due to a personality clash or difference rather than an inmate's unwillingness to interact. Furthermore, as noted previously, the prison environment is not conducive to trust and as such, a lack of rapport creating communication barriers may have influenced the results.

In addition to these studies, anecdotal reports from prison participants have identified a number of physical changes inmates experience as a result of participating in PDPs (Furst, 2007a; Megarani *et al.*, 2016; Minton *et al.*, 2015). For example, Furst (2007a) found that prisoner

participants attributed weight loss, increased exercise, more energy, improved sleep patterns, and a decrease in blood sugar to their PDP participation.

The largest body of research in relation to PDPs has focused on the psychological and emotional impact of these programs. The most reported psychological benefits for inmates include a sense of responsibility and accountability, increased patience, positive changes in self-awareness, self-concept, and self-efficacy and increases in self-confidence, self-esteem, self-respect, and decreases in depression, anxiety, and stress. Other positive psychological outcomes reported include an increase in emotional intelligence, such as enhanced empathic ability and emotional self-control, particularly anger management, a sense of pride, enhanced trust, and increased motivation. Less reported psychological effects include positive attitudinal changes, enhanced problem-solving, maturity, self-discipline, ability to adapt and cope in the prison environment, and an increase in commitment (Aufderheide, 2016; Britton & Button, 2005, 2007; Conniff *et al.*, 2005; Conroy *et al.*, 2012; Cooke & Farrington, 2014, 2015; Currie, 2008; Davis, 2007; Dell & Poole, 2015; Furst, 2006, 2007b, 2007a, 2009; Gilger, 2007; King, 2014; Koda *et al.*, 2016; Koda, Miyaji, *et al.*, 2015; Leonardi *et al.*, 2012; Megarani *et al.*, 2016; Mercer *et al.*, 2015; Merriam-Arduini, 2001; Minton *et al.*, 2015; Mulcahy, 2011; Richardson-Taylor & Blanchette, 2001; Stetina, Gegenhuber, *et al.*, 2009; Stetina, Kuchta, *et al.*, 2009; Stetina, McElheney, Burger, *et al.*, 2010; Stetina, McElheney, Klee, *et al.*, 2010; Turner *et al.*, 2010, 2011; Turner, 2007; Walsh & Mertin, 1994).

PDPs have also been shown to increase inmates' social interactions, not only among themselves but also with prison staff and friends and family on the outside. It has been suggested that this is due to the fact that PDPs provide the opportunity for inmates to develop social skills, such as teamwork and effective communication techniques (Britton & Button, 2005, 2007; Conroy *et al.*, 2012; Cooke & Farrington, 2014; Currie, 2008; Davis, 2007; Dell & Poole, 2015; Drew *et al.*, 2013; Fournier *et al.*, 2007; Furst, 2007a; Jasperson, 2011; Koda, Miyaji, *et al.*, 2015; Leonardi *et al.*, 2012; Mercer *et al.*, 2015; Minke, in press; Minton *et al.*, 2015; Mulcahy, 2011; Richardson-Taylor & Blanchette, 2001; Stetina, McElheney, Burger, *et al.*, 2010; Turner *et al.*, 2010, 2011; Turner, 2007). Furthermore, the increase in positive social interactions between prisoners and staff has also been attributed to the fact that PDPs act as social catalysts and challenge and change inmates perceptions of prison officers and officers perceptions of inmates (Britton & Button, 2007; Mercer *et al.*, 2015; Minton *et al.*, 2015).

Moreover, it has been found the PDPs have a normalising and calming effect on the prison environment. While some researchers suggest that the positive change in environment can be attributed directly to the PDP, either through an increase in positive social interactions, decrease in behavioural infractions, or the additional privileges and freedoms, others assert that the positive changes may be a result of the social control exerted by the program (Britton & Button, 2005, 2007; Challinor, 2009; Conniff *et al.*, 2005; Currie, 2008; Demyan, 2007; Drew *et al.*, 2013; Fournier *et al.*, 2007; Katcher *et al.*, 1989; King, 2014; Mercer *et al.*, 2015; Merriam-Arduini, 2001; Richardson-Taylor & Blanchette, 2001; Turner, 2007; van Wormer *et al.*, 2015).

A number of qualitative studies have also reported that PDPs can increase a prisoner's level of education and increase vocational opportunities post-release (Britton & Button, 2007; Cooke & Farrington, 2014; Currie, 2008; Turner, 2007). In a study conducted by Cooke and Farrington (2014) nine of eleven program co-ordinators and staff interviews, stated that PDPs increased employability as they provided prisoner participants with the opportunity to learn transferable skills such as problem-solving and organisational skills as well as increasing levels of self-esteem and self-worth. Inmate PDP participants also report a positive impact on employability as PDPs provided the opportunity to develop skills such as a positive work ethic, self-discipline, personal responsibility, patience, goal setting and completing job applications (Currie, 2008; Davis, 2007). A number of programs also enable prisoner participants to obtain qualifications in dog care and grooming (Furst, 2006; Leonardi *et al.*, 2012).

### ***Benefits to Society***

While there is very little research regarding the impact of PDPs on desistance and/or recidivism, studies suggest that inmates who participate in PDPs are less likely to reoffend after release from prison. While three studies found a zero recidivism rate among ex-inmate PDP participants, others found that those who participated in PDPs reoffended at a reduced rate than those who did not participate (Chianese, 2010; Furst, 2007b, 2007a; Merriam-Arduini, 2001). It is suggested that PDPs can encourage positive social interactions, identity transformation and provide the opportunity for offenders to make a positive contribution to society, all of which have been found to increase the likelihood of desistance (Furst, 2007b, 2007a; Giordano *et al.*, 2002; Laub & Sampson, 2001; LeBel *et al.*, 2008; Maruna, 2001; Runggay, 2004). While only one study has examined the relationship between PDPs and desistance (Furst, 2007b, 2007a), the findings are supported in other studies which also found that PDPs are an altruistic activity that increase positive interactions with others and encourage personal development and

identity transformation (Britton & Button, 2005, 2007; Button, 2007; Conroy *et al.*, 2012; Currie, 2008; Demyan, 2007; Furst, 2007b, 2007a; Lai, 1998; Strimple, 2003; Turner, 2007). While there are no longitudinal studies to examine the long-term impact of PDPs on society, it can be assumed that if PDPs can reduce the frequency and severity of offending by encouraging offenders to change their criminal identity, then society can benefit long-term as it will improve community safety, reduce the costs associated with crime and restore society's confidence in the criminal justice system. The present study aimed to address this gap in the literature by examining the potential of PDPs for increasing desistance among inmate participants.

### ***Benefits to Prison Officers***

While there is limited research examining the impact of PDPs on corrections staff, research suggests that prison staff can indirectly benefit from PDPs as a result of the positive behavioural and environmental changes PDPs foster. As discussed previously, PDPs not only encourage positive social interactions among inmates and between inmates and staff, but they also reduce the number of infractions committed and contribute to a more positive environment (Britton & Button, 2005, 2007; Currie, 2008; Fournier *et al.*, 2007; Harkrader *et al.*, 2004; Lai, 1998; Moneymaker & Strimple, 1991; Turner, 2007; Walsh & Mertin, 1994). The increase in positive behaviours and decrease in altercations among inmates potentially benefits correctional staff by calming the environment, reducing their workload, improving their emotional and psychological states and removing some of the adverse effects prison culture can have on an individual. As Britton and Button (2007, p. 11) assert,

*...no administrator or officer wants to work in a setting in which verbal and physical altercations are commonplace.*

### ***Benefits to Dogs***

While there are a number of anecdotal reports suggesting that dogs benefit from PDPs (Demyan, 2007; Leonardi *et al.*, 2012), only two known studies have directly examined the impact PDPs have on dogs involved in PDPs (Hennessy *et al.*, 2006; Koda, Watanabe, *et al.*, 2015). Hennessy *et al.* (2006) was the first known study to examine the physiological impact PDPs have on the dogs involved. Twenty-six abandoned and surrendered dogs participated in the study. Thirteen were assigned to a socialisation group at the Dayton Correctional Institution, while the remaining dogs stayed in the shelter. A pre-post-test design was used to measure the dogs' plasma cortisol and adrenocorticotrophic hormones (ACTH) levels,

command compliance and their behavioural responses to novel situations. Results of the study suggest that PDPs can significantly improve a dog's behaviour and command compliance ( $p = 0.001$ ). Furthermore, while no correlation was found between ACTH and PDPs, a correlation was evident between cortisol and ACTH, which indicates that shelter housing results in a dysregulation of the hypothalamic-pituitary-adrenal axis (HPA) and while prison may not be an ideal environment for dogs, it is better than a shelter. Similarly, Koda, Watanabe, *et al.* (2015) examined the impact of PDPs on the stress of dogs involved in the program using self-reported questionnaires and measurements of the dogs' salivary cortisol before and after each session. Like Hennessy *et al.* (2006), Koda, Watanabe, *et al.* (2015) found no observable stress signals and a decrease in salivary cortisol levels suggesting that PDPs have the ability to decrease dogs' stress levels.

### ***Challenges of PDPs***

While the existing research appears to support the implementation of PDPs, much of this research is one-sided, with many studies failing to examine the negative aspects of PDPs (e.g., Davis, 2007; Merriam-Arduini, 2001; Turner, 2007). Nevertheless, a number of studies have noted the potentially negative aspects of PDPs on both the prisoner and the dogs involved in the program. One commonly identified challenge identified in the literature was interpersonal conflict among inmates and between inmates and staff (Britton & Button, 2005, 2007; Currie, 2008; Drew *et al.*, 2013; EECS, 2012; Minton *et al.*, 2015; Mulcahy, 2011). Britton and Button (2005, 2007) and Drew *et al.* (2013) attributed the conflict between inmates to jealousy, while a number of studies suggested that inmates had more issues with prison staff who were unsupportive of the program or rehabilitative efforts in general (Britton & Button, 2005, 2007; Drew *et al.*, 2013; Minton *et al.*, 2015; Mulcahy, 2011). Another commonly identified challenge was the emotional loss inmates experience when giving up the dogs at the end of the program (Britton & Button, 2005, 2007; Cooke & Farrington, 2014; Currie, 2008). Other less identified challenges of PDPs included the occasional inability for people or animals to change, concerns regarding prisoner safety and security, including the trials and tribulations of working with dogs (i.e., being bitten), the amount of responsibility needed to keep, care for and train the dogs, the lack of socialisation for the dogs, appropriate staff recruitment and the additional work load corrections staff are required to take on, communication issues between prison staff and animal welfare and training agencies which hindered program development and implementation, attempts made by inmates to manipulate animal welfare staff and the negative pressure placed on inmate participants and the self-esteem issues that arose when a dog failed

to become a service dog through no fault of the inmate trainer (Cooke & Farrington, 2014; Currie, 2008; Drew *et al.*, 2013; EECS, 2012; Mulcahy, 2011). While there are a limited number of PDP participants who identified the challenges discussed above, the fact that some inmates identify challenges indicates that not all offenders will positively respond to PDPs and as such, it is necessary to examine what makes the program effective for some and not others.

Another question often raised regarding the effectiveness of PDPs is the potential risk to the dogs. Only two studies, examining the impact of PDPs on the dogs, found potential detrimental effects on the dogs involved (EECS, 2012; Meers *et al.*, 2010). Meers *et al.* (2010) examined the potential welfare risk to animals in a Belgium prison and found that there were problems with management, negligence with feeding procedures, breeding without permission of the guards, bite accidents involving rabbits and dogs, and in some cases distressed animals that would run away and hide from the prisoners. In addition, an unpublished in-house evaluation of an Australian PDP noted that animal welfare was one issue that arose during program delivery. A fight between dogs competing for food had resulted in an \$1800 vet bill.

## THE NEED FOR ADDITIONAL RESEARCH

Although current literature on PDPs highlights numerous benefits, the majority of data is based on observations, anecdotal evidence and self-reports, and future research is needed to accurately measure the impact of PDPs. Furthermore, with minimal research conducted in Australia, additional research is needed to support the development and implementation of current and future programs in Australia. The present study aimed to address this gap by providing a review of current PDPs in Australia and by exploring the benefits of PDPs and the circumstances in which prisoners will most likely benefit from program participation. In its entirety, the present study will present the only known demographic data of PDPs currently operating in Australia and is one of the few studies that incorporate both quantitative and qualitative research designs. In the next chapter, current knowledge regarding PDPs in Australia is examined and findings from the surveys of correctional staff and representatives from animal welfare and training organisations are presented.



## 4. The Nature of PDPs in Australia

---

This chapter presents the findings of the first study in this dissertation that examined the nature and extent of prison dog programs (PDPs) currently operating in correctional centres across Australia and explored the effectiveness of these types of programs for rehabilitating offenders. A survey of staff from animal welfare and training organisations and corrections departments across Australia was conducted to compile a nationwide profile of PDPs wherein inmates train dogs while learning skills to assist their rehabilitation. As this chapter will show, inmates clearly benefit through opportunities to help the dogs, give back to society, gain a sense of responsibility, improve self-confidence and social skills, and acquire vocational qualifications to improve job opportunities post-release. Barriers identified to program effectiveness included insufficient funding, limited training opportunities for the dogs and some staff resistance.

### PDP RESEARCH IN AUSTRALIA

The only published study of PDPs in Australia was conducted by Walsh and Mertin (1994) between 1988 and 1989. This study evaluated the emotional state of female prisoners participating in a pilot PDP at Northfield Prison Complex in South Australia. A pre-post-test design was used to assess the level of self-esteem and depression in inmates before and after participation in PDPs. Measures used included the Coopersmith Self-Esteem Inventory (Coopersmith, 1967) and the IPAT Depression Scale (Krug & Laughlin, 1976). Findings of the study indicated positive results with participants reporting an increase in self-esteem and an associated decrease in depression from pre-test to post-test. While these results are promising, post-tests were administered at the time inmates left the program because they were released from prison. Therefore, the positive changes in inmates' self-esteem and depression may have been a result of their impending release from prison rather than participation in the PDP.

An unpublished master's dissertation also examined PDPs in Australia (Mulcahy, 2011). Using a mixed methods approach Mulcahy (2011) evaluated the Pups in Prison (PIP) program at Darling Downs Correctional Facility in Queensland. In total, three studies were conducted. The first collected descriptive data from male prisoners ( $N = 90$ ) to identify the prevalence of pet ownership and level of pet attachment. A survey, based on validated measures of

loneliness, vitality, life satisfaction, hope, depression, self-esteem, self-efficacy and criminal thinking was used to collect data. Findings from this study indicated that prisoners kept pets at the same rate and with a similar level of attachment to the general population suggesting that data relating to the benefits of animal therapy are generalisable among the prison population. Using the same sample population and survey, the second study aimed to identify measurable improvements in psychosocial health and prosocial attitudes using the reliable change index. Findings of this study were inconclusive as both improvements and deteriorations were present across measures including mood, self-efficacy, and criminal attitudes. These findings reiterate the need for future research to identify the type of person and the circumstances in which individuals benefit the most from PDPs. The third and final study conducted semi-structured interviews with prisoners ( $N = 17$ ), drawn from the same sample population as the first two studies, and prison staff ( $N = 12$ ) to explore attitudes towards the program. Both inmates and staff reported the program facilitated positive social interactions among inmates and between inmates and staff, provided opportunities for inmates to develop transferable life skills (i.e., patience, responsibility, compassion, pride, self-confidence, and emotional intelligence), facilitated teamwork, and improved inmates' behaviour. Inmates further added that the program also facilitated social interactions with friends and family on the outside, prepared them for release by building new prosocial relationships and assisted in reducing the stigma facing prisoners by providing the opportunity to make a positive contribution to society and recompense for past crimes. Limitations of the program, according to inmates, was the lack of socialisation for the dogs and issues with prison staff who were unsupportive of the program. For staff, concerns regarding the program related to prisoner safety and security, additional roles staff members were expected to take on (i.e., weekend puppy sitter) and the lack of communication between Assistance Dogs Australia (ADA) and Darling Downs staff. While the results of this study support those of other studies, using the same sample population for all three studies may lessen the generalisability of these results.

An unpublished in-house evaluation was conducted on the Companion Animal Service Employment Centre (CASEC) program, a PDP pairing ex-racing greyhounds with male inmates housed at Hakea prison in Western Australia (EECS, 2012). The aim of this program was to improve prisoners' chances of meaningful employment and enable ex-racing greyhounds to be rehomed as family pets. The dogs were sourced through the Greyhounds as Pets program, a not-for-profit initiative of Greyhound Racing in WA. The aim of this in-house evaluation was to provide a program report and best practice summary that would support the

implementation of current programs and inform future program design. In conducting the evaluation, a number of program benefits and challenges were identified. Benefits of the program included providing a second chance and rehoming opportunities for ex-racing greyhounds, increasing employment opportunities for ex-prisoners post-release, facilitating staff-prisoner relationships by providing opportunities for staff to better identify prisoners criminogenic needs, an increase in the number of prisoners receiving housing and other support post-release, and the opportunity for prisoners to have a voice in the community as a result of media interest in the program. Thirteen program challenges were identified and 20 recommendations made as part of the program evaluation. Firstly, the unusual setting created by a maximum-security prison made program setup difficult. For example, detailed program processes were needed to ensure appropriate storage and use of dog leads as they have the potential to be used as a weapon. Staff recruitment was also a challenge, as it was necessary to find people with the appropriate skills set. In addition, communication issues between staff from animal welfare and training organisations and corrective services personnel, resistance toward the program and boundary restrictions within the prison affected the smooth and prompt delivery of the program. Another issue encountered during program delivery was attempts by inmates to manipulate staff from animal welfare and training organisations involved in PDPs. Despite staff training prior to program delivery, one staff member had to be removed from the program:

*...due to personal qualities and an interaction style not compatible with a prison environment (EECS, 2012, p. 12).*

The welfare of the dogs was another issue that arose during program delivery as a result of a dogfight that erupted due to food aggression, resulting in a \$1,800 vet bill. Information regarding prisoners was difficult for staff from animal welfare and training organisations to obtain which made it difficult to identify which prisoners were eligible for program participation. Employment barriers encountered included prisoners unwillingness to work post-release and resistance from employers to hire ex-prisoners.

## METHOD

The aim of the survey was to gather information on program characteristics, including the program style, the year implemented, and number of participants, eligibility criteria, the aims of each program, and how successful the programs are at achieving these goals.

## ***Participants***

Participants for this study were selected using purposive and snowball sampling. Purposive sampling was appropriate for this study as it was necessary to gather data from key informants based on their knowledge of or expertise in prison-based dog programs in order to gain an in-depth understanding of PDPs (Patton, 2002). Snowball sampling was also used to identify participants. Snowball sampling generates a study sample through referrals made by people who share or know of others who possess characteristics relevant to the research study (Biernacki & Waldorf, 1981). The final sample for this study consisted of 23 participants: there were nine corrections staff (five female and four male) and 18 representatives from animal welfare and training organisations (15 female and four male) involved in PDPs. Of the nine corrections staff, there was one from TAS, three from QLD, and 5 from VIC. Of the 18 representatives from animal welfare and training organisations, there were five from WA, six from QLD, one from TAS, one from SA, three from NSW, and two from Victoria. Animal welfare and training organisations represented included Assistance Dogs Australia (3), RSPCA (3), Greyhound Racing (4), Geraldton Dog Rescue (1), Snowy Mountains Animal Rescue (1), Dog's Refuge Home (1), Lort Smith Animal Hospital (1), North QLD Animal Rescue (1) and Dog's Home of Tasmania (1) and SmartPups Inc. (1).

## ***Procedure***

Prior to commencing the study, ethical clearance was sought from the University of New England Ethics Committee (approval number: HE15-035) and each state and territory's corrections departments. Once approval was granted, each of the government operated and privately operated prisons ( $N = 95$ ) were contacted to determine whether they facilitated a PDP. Twenty-three prisons in six of Australia's states were identified; five in NSW, five in VIC, four in QLD, seven in WA, one each in SA and TAS. The researcher requested information on corrections personnel involved in the administration of the PDP as well as the associated animal welfare or training organisation involved. Forty-six potential participants across the 23 prisons were identified: 23 correctional staff and 23 representatives from animal welfare and training organisations. All potential participants were then contacted by phone or email and asked to participate in the research. Those who agreed were then emailed a copy of the survey along with a cover letter and information about the study, their rights concerning participation in the study, and assurance of confidentiality. In addition, the researcher explained that informed consent was implicit through completion of the survey. A follow up phone call and email proceeded the survey at approximately 2 months to increase response rates. In total, 27 surveys

were returned; 18 from representatives of animal welfare and training organisations and nine from corrections staff; a 56% response rate. Among the representatives from animal welfare and training organisations, there was a 78% response rate, while prison staff responded at a rate of 39%.

### ***Measures***

This study used observational methods of data collection by distributing a cross-sectional survey to representatives from animal welfare and training organisations and corrections staff involved in PDPs. Observational methods of data collection are suitable for investigating phenomena that can be observed directly by the researcher. However, difficulties associated with access to the prison population and the enormity of visiting each prison involved in PDPs meant that it was unmanageable for the researcher to do this. As such, the research asked individuals who have experience with the phenomena under investigation (PDPs) were asked to reconstruct the phenomenon for the researcher, with the obtained responses constituting the data.

Three methods are commonly used to elicit information from respondents: an interview, a mail survey, or a telephone survey. This study employed two self-administered cross-sectional mail surveys (appendix A and B). Cross-sectional surveys collect data (or a ‘snapshot’) to make inferences about a population of interest at one point in time (Hall, 2008, p. 173). A mail survey is a self-administered survey specifically designed to be completed by a respondent without intervention of the researcher (i.e., interviewer) collecting the data (Wolf, 2008, p. 804). The mail survey was chosen as it is likely to be less expensive, easily distributed nationwide and respondents may have greater confidence in their anonymity, and thus feel freer to express their true ideas. Surveys also place less pressure on the subject for immediate response.

The first survey (appendix A), sent to staff from corrections departments in each state and territory, gathered basic information on the program characteristics, such as the name of the program, year implemented number of participants and eligibility criteria. A second survey (appendix B) for external facilitators of PDPs was sent to staff from animal welfare and training organisations such as the RSPCA, ADA, and Greyhound Racing Australia. This survey examined the types of programs, the aims of each program and how successful the programs were at reaching their goals. Each survey was adapted and developed based on questions used by Furst (2006) in a national survey of prison-based animal programs in the United States (US), which aimed to capture the extent to which PAPs were administered in the US. The researcher

modified the survey in order to better fit the needs of the study's population and the location (Harkness, 2008; Harkness & Edwards, 2010). To verify that the questions elicited the intended data, the survey was piloted on five representatives from animal welfare and training organisations involved in PDPs.

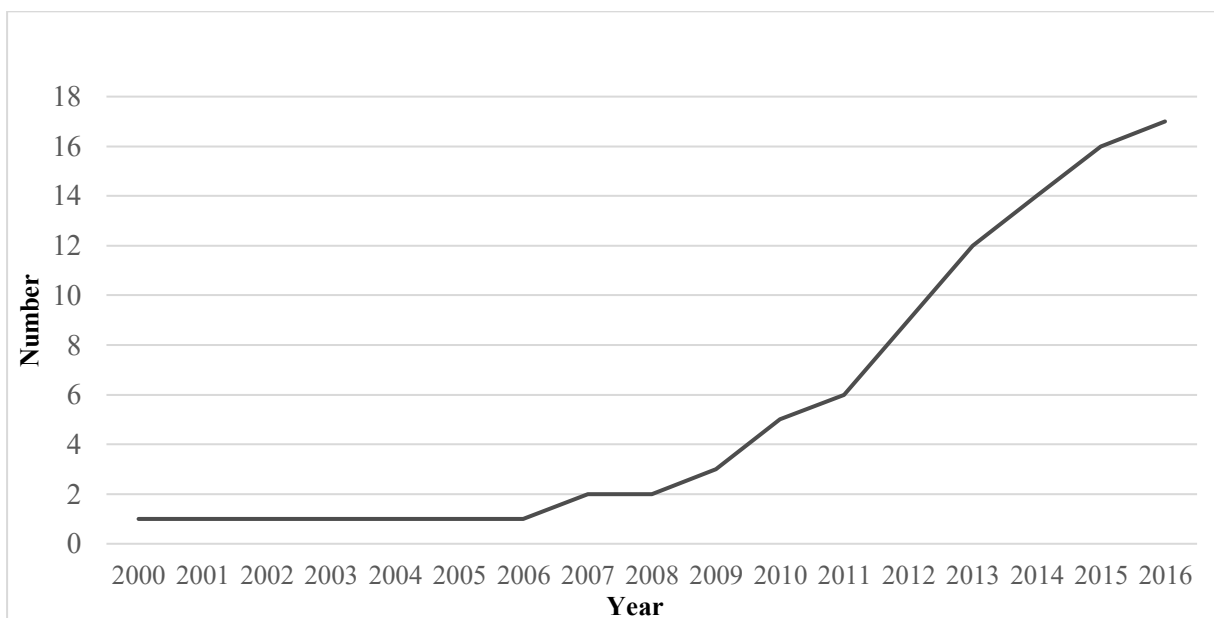
### ***Data Analysis***

Once the cross sectional surveys were completed and returned, the data were coded using Microsoft Excel. Miles and Huberman (1994, p. 56) define codes as “tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study”. Codes can be developed from existing theory (theory-driven); they can emerge from the raw data (data-driven) or grow from the research questions (structural). Coding allows the researcher to estimate characteristics or look for patterns among variables (Czaja & Blair, 1996, p. 25). It allows for data reduction and simplification, data expansion (making new connections between concepts), transformation (converting data into meaningful units), and reconceptualization (rethinking theoretical associations) (Coffey and Atkinson, 1996). Further, through coding, researchers make connections between ideas and concepts. Applying codes to raw data enables the researcher to begin examining how their data supports or contradicts the theory that is guiding their research as well as enhances the current research literature. According to Corbin and Strauss (2008), there are two major levels of coding—open coding and axial coding. When beginning to code interview data, the first step is to engage in the process of open coding or “breaking data apart and delineating concepts to stand for blocks of raw data” (Corbin and Strauss, 2008, p. 195). Open coding allows for exploration of the ideas and meaning that are contained in raw data. While engaging in open coding, the researcher creates codes or concepts. Once codes have been created using open coding, it is necessary to analyse them through the process of axial coding. This higher level of coding enables researchers to identify any connections that may exist between codes. Essential to the coding process is the codebook. A codebook is a set of codes, definitions, and examples used as a guide to help analyse interview data. Codebooks are essential to qualitative data analysis because they provide a formalised operationalisation of the codes (Crabtree & Miller, 1999). In this study, a codebook was developed using Microsoft Excel spreadsheets. A unique identifier was assigned to each respondent and each ID was placed in a row, and one column was assigned to each survey question. Pre-coded questions were numerically coded while open-ended questions were analysed using a content analysis in which the core content is analysed to determine significant data. Unanswered questions or obscured questions (i.e.,

multiple answers given when only one answer was required) were left blank. Experienced researchers then reviewed the data to ensure reliability and rigour.

## RESULTS

At the time of writing, 18 prisons reported conducting a PDP in six Australian states: five in VIC, four in WA, four in QLD, three in NSW and one each in SA and TAS. The Northern Territory (NT) and Australian Capital Territory (ACT) did not provide PDPs. WA facilitated the most number of dog programs with four programs currently operating. SA and TAS had the least with each state running only one program. The majority of PDPs were established after 2010 ( $N = 14$ ), with the first PDP implemented in 2000 and the last in May 2016. Figure 4.1 shows the steep increase in the number of PDPs in Australia since 2000.



*Figure 4.1 Number of PDPs by year*

Most participants ( $N = 16$ ) reported an association with a not-for-profit animal welfare or training organisation. Local council pounds and rescue centres were the most common associations ( $N = 7$ ). Programs facilitated by these organisations assist abandoned and unwanted dogs by taking them out of the shelter environment, retraining, and resocialising them in an attempt to increase their chances of adoption. Greyhound Racing was the second most popular partnership with four prison affiliations: three in VIC and one in SA. PDPs facilitated by Greyhound Racing focus on retraining and resocialising ex-racing greyhounds so that they can be adopted out as family pets through the Greyhounds as Pets program. RSPCA and ADA both administer two programs. PDPs facilitated by the RSPCA in NSW and QLD

involve inmates resocialising and retraining unwanted or abandoned dogs from the RSPCA. The dogs receive basic care and training by approved inmates and once a dog responds well to the program, the RSPCA arranges for the dog to be adopted as a well-behaved pet. ADA runs two programs, one in QLD, and another in WA. These programs raise (and sometimes train) Labrador puppies to assist people with physical disabilities in order to enhance their quality of life and improve their level of independence. AWLQ facilitates one PDP in Queensland and the two remaining programs rely on members of the public to volunteer with their pet dogs. Figure 4.2 shows the percentage of programs facilitated by various animal welfare or training organisations associated with PDPs.

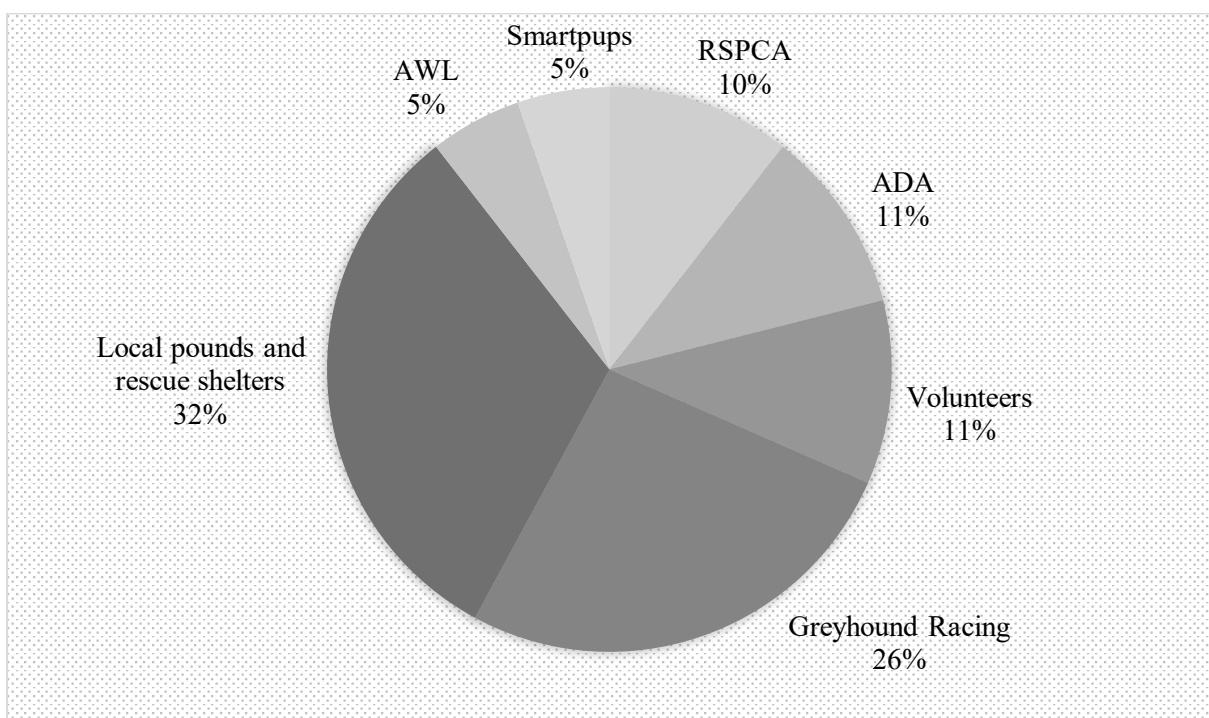


Figure 4.2 Animal welfare and training organisations facilitating PDPs

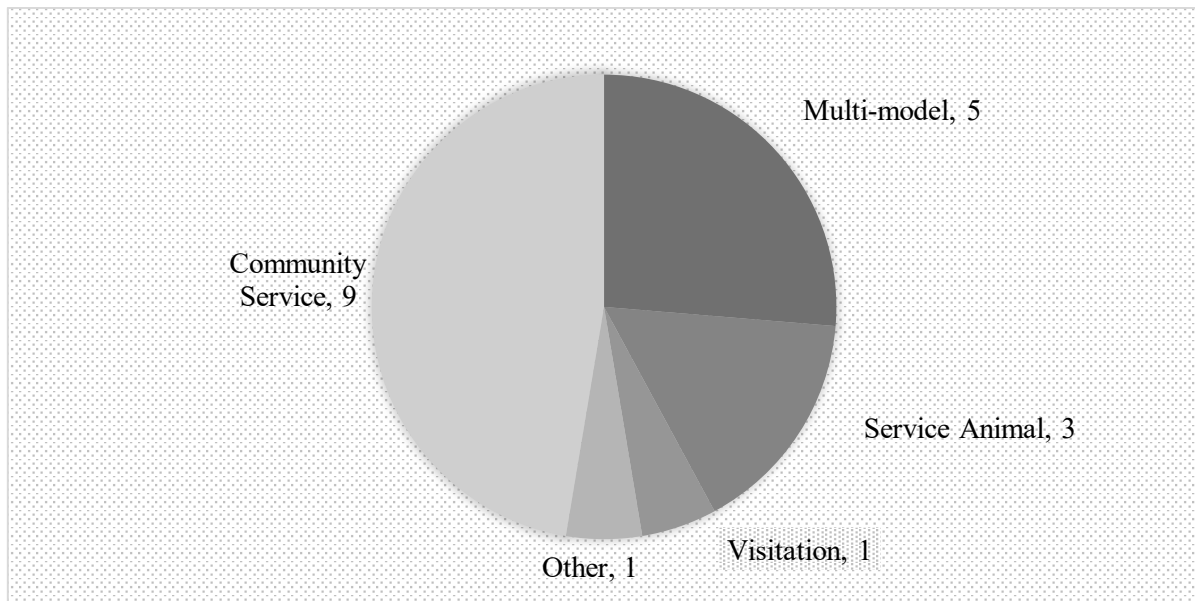
The amount of responsibility staff from animal welfare or training organisation have for administering the program varies. In most programs ( $N = 16$ ) the associated animal welfare or training organisation provides the dogs for the program, either free or at minimal cost, and teaches the inmates how to care for and train the dogs ( $N = 14$ ). Typically, trainers visit the prison at least once a week to work with the prisoners and their dogs throughout the duration of the program ( $N = 8$ ).

## PROGRAM DESIGN

The most common program design used is the community service model, which is currently implemented at seven prison sites in Australia, including two each in WA and QLD and one



each in NSW, VIC, TAS, and SA. In this model, lost, abandoned, or unwanted dogs are trained, socialised and cared for by the inmates. Once the dogs are rehabilitated, they are then adopted out and rehomed by members of the community. The second most frequent program design is the multi-model program ( $N = 5$ ). Based on a community service design, this model also incorporates a vocational element. Multi-model programs are implemented in two NSW prisons, two VIC prisons and one SA prison. The remaining programs were service animal socialisation ( $N = 3$ ), visitation (1) and pet therapy (1) programs.



*Figure 4.3 PDP design models*

The majority of dog programs ( $N = 12$ ) are an ongoing program that provide a rolling intake of inmates and dogs. In these programs, inmates remain on the program until they are to be released from jail and the dogs remain in the program until they are rehomed. With regard to the dogs, the majority remain in the program until rehomed ( $N = 8$ ), while in other programs ( $N = 5$ ), the length of stay for the dogs varies from one hour to 12 months.

The amount of time inmates spent with their dog was dependent on whether the prison had purpose-built kennel facilities for the dog to reside in at night. The findings revealed eight prisons provide purpose-built kennels for the dogs to reside in at night, six allowed the dogs to sleep with their inmate handlers in house-type accommodation or prison cells, and one provided no accommodation for the dogs as they reside outside of the prison.

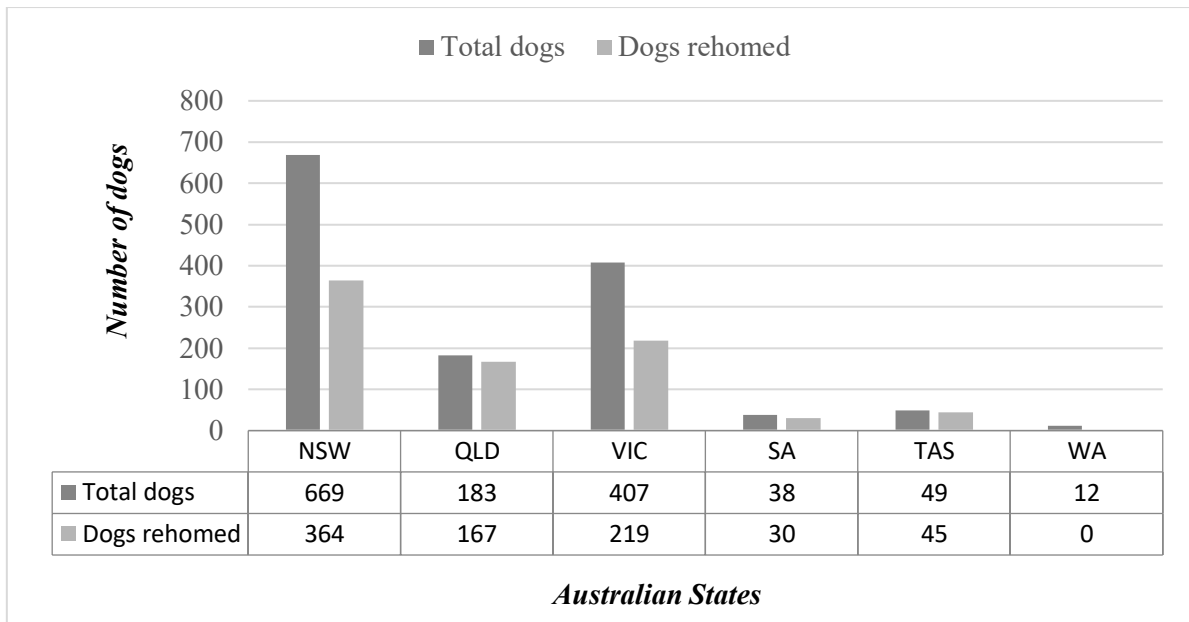
## PRE-PARTICIPATION

Eight of the nine corrections staff participants reported implementing screening procedures for inmates prior to participation. This included conducting interviews with inmates to ascertain inmates suitability for the program ( $N = 7$ ), placing inmates on probation within the program ( $N = 1$ ), taking into consideration crimes committed ( $N = 8$ ), time until release ( $N = 4$ ), security level of the inmate ( $N = 2$ ) and personality ( $N = 1$ ).

The increasing prison population and the small number of programs available in prisons can have a significant impact on prisoners' ability to access these programs. For example, a report by the Victorian Ombudsman (2015) found that a significant number of prisoners had not undergone a risk and needs assessment and that there was a backlog dating back to 2010. Of those that were deemed suitable for therapeutic intervention, 44% had been waiting longer than six months to begin rehabilitation programs. Therefore, it would be beneficial to implement additional programs, such as PDPs and provide greater access to prisoners.

## POST-PARTICIPATION

The study found that over 827 inmates have trained over 1,258 dogs across Australia since 2006. Of the 1258 dogs, approximately 1,233 were looking for new homes, which were found for 725 dogs (59%). The remainder of the dogs either stay in the program until they are adopted, return to the shelter for adoption or are cared for by volunteer foster carers until permanently rehomed. QLD has rehomed the most number of dogs ( $N = 1083$ ) contributing to more than half of the rehomed population (62%) followed by NSW with 364 (21%) and VIC with 219 (12%). QLD, TAS, and SA have rehomed the largest population of all dogs training in PDPs. Figure 4.4 depicts the total number of dogs trained in PDPs and the number of dogs rehomed after participation in a program.



*Figure 4.4 Number of dogs rehomed by state*

Of the 827 inmates who have participated in a PDP in Australia since 2006, one third (33%) were housed in a QLD prison, 27% in VIC, 21% in WA, 13% in NSW, 4% in TAS and 4% in SA. Despite this, however, while it appears that QLD and VIC offer the most opportunity for prisoners to participate in PDPs. By comparing data to maximum capacity ratings for each prison, reported by each state’s corrective service departments, WA appears to offer the most opportunity for inmates to participate in a PDP with 36% of inmates, housed in a prison facilitating a PDP, participating in a PDP (see figure 4.5 below).

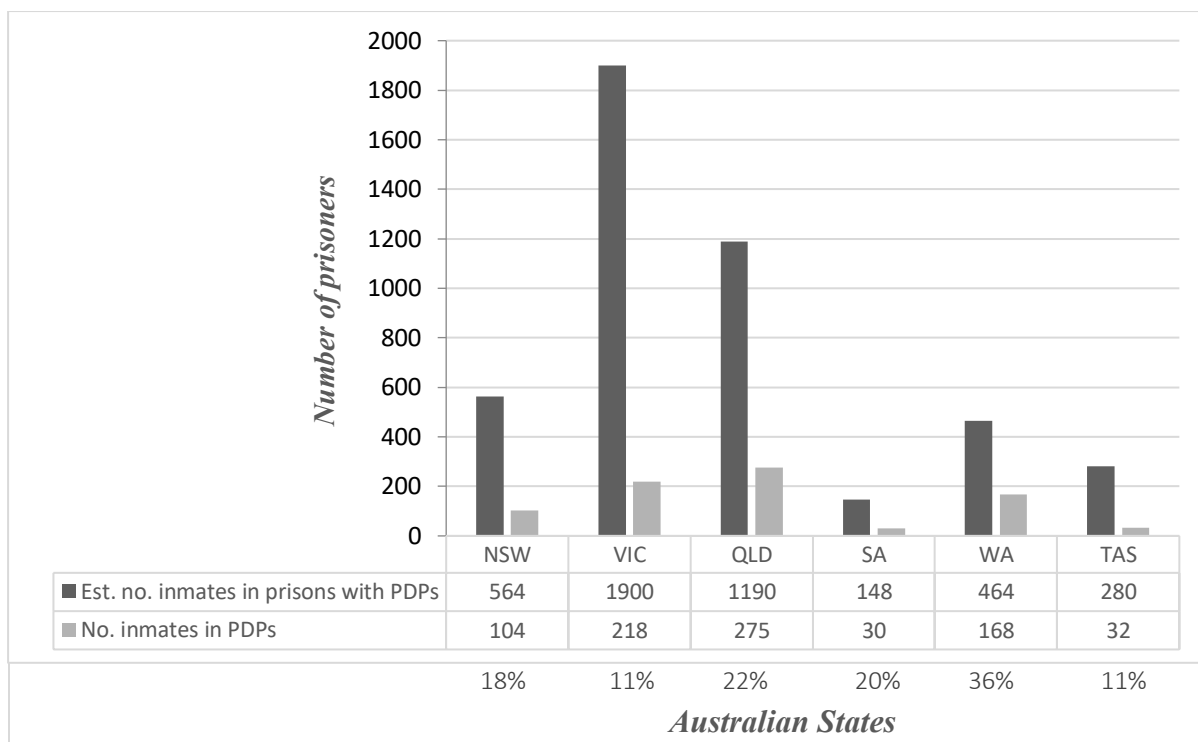


Figure 4.5 Number of prisoners participating in PDPs by state

The majority of prisoners exit the program upon release from prison ( $N = 10$ ). While some research suggests PDPs reduce recidivism, there is no reliable post-release data examining the impact of PDPs have on reoffending. Although anecdotal accounts report a zero recidivism rate among ex-prisoners who participated in a PDP (Furst, 2007b; Merriam-Arduini, 2000), this may not necessarily be a true indicator. For example, ex-prisoners may have reoffended in another jurisdiction. Future research is needed to quantitatively examine the impact PDPs have on reoffending and post-release employment prospects.

### **Funding**

Seventeen programs (94%) have received private donations from members of the public to assist in covering the costs of program operation (excludes the wages of trainers). These costs include feeding the dogs; veterinary costs, training equipment, and kennel facilities. Eight programs are fully funded by donations, seven are funded by donations, and the affiliated welfare organisation and two are partially funded by animal welfare or training organisations and the relevant state corrective services department. Programs partially funded also rely on money received from corrective services ( $N = 2$ ) and dog adoption fees ( $N = 2$ ). The remaining program, a visitation program, relies on volunteers and their pet dogs. Sources of donations included private donations from the public, as well as donations from associated animal welfare or training organisations.

## ***Program Benefits***

There were four major themes and several minor themes within the participants' views on the benefits of PDPs. The majority of participants ( $N = 12$ ) reported that PDPs were an altruistic activity that provided an opportunity for inmates to help abandoned or surrendered dogs and give back to society. The second most reported benefit was the ability for PDPs to foster personal development skills, notably inmates' sense of responsibility ( $N = 9$ ) and confidence/self-esteem ( $N = 5$ ). Thirdly, developing, improving and practicing social skills was another theme that emerged from the study ( $N = 8$ ). Lastly, two participants indicated that PDPs provided the opportunity to learn additional vocational skills that would increase job opportunities post-release.

### Altruism

Altruism is defined as a voluntary and intentional act performed with the primary goal of benefiting another being. The ultimate goal of altruism is to increase another's welfare (Leeds, 1963). A sense of satisfaction from altruistic activities was evident in comments from several of the participants who reported that PDPs provide a positive outcome for abandoned and surrendered dogs. One participant noted,

*The best thing about the program is that we are helping to rehome animals that have been saved from death row at the pound.*

Similarly, other participants indicated that the program

*... provides the opportunity to give back to the community by helping dogs that would otherwise be euthanised.*

*... provides a positive outcome for greyhounds. To re-train those who might otherwise be destroyed.*

*... gives the dogs another opportunity or second chance at being housed; avoiding euthanasia.*

*...meets a community need as each dog has behaviour problems and has been surrendered...so we create an opportunity for sentenced prisoners....to give back to their community.*

Although there are no national statistics on the number of surrendered and abandoned dogs in Australia, the Pet Industry Association of Australia (2012) applied key indicators of NSW data to the total known dog population and estimated that 245,783 dogs are unwanted each year in Australia, and 44,650 are euthanised due to a lack of room in adoption shelters. PDPs can relieve the pressure placed on shelters by providing a temporary home for the dogs and can also increase the adoptability of the dogs through regular training and socialisation, thus reducing the number of dogs' euthanised.

Furthermore, several participants added that in addition to saving dogs and increasing their chances of rehoming, PDPs can provide the dogs with "a break from the stress of the shelter." One study participant explained how PDPs can increase a dog's adoption chances:

*...away from the shelter, the dogs receive a high level of attention and follow a training program devised by our behaviour specialists until they are assessed as ready to be rehomed.*

Another participant stated,

*The six kennels we have act as foster homes for those dogs thus extending our foster network...the dogs undertake activities that help them transition into pet life on the outside including learning appropriate leash manners and getting used to being inside [inmates residential-style accommodation], which simulates a normal home environment.*

Research shows that animal shelters are stressful environments, which negatively impacts on dogs' health and behaviour, which in turn can impact the likelihood of rehoming (Wells, Graham, & Hepper, 2002). PDPs provide respite for overly stimulated dogs, and through training, prisoners can increase a dog's positive behaviours and improve chances of rehoming.

### Personal Development

The majority of participants ( $N = 9$ ) indicated that participating in PDPs improved inmates' sense of responsibility. Caring for the dogs in the program helps inmate trainers learn to give of themselves. As part of the programs, inmates are required to feed, water, groom, and train the dogs and some programs require inmates to take on additional administrative responsibilities. Furthermore, four participants reported an increase in inmates' confidence

and self-esteem as a result of participation. One study participant described the benefits of a PDP:

*Watching the dogs and the inmates grow with confidence. Getting to know the inmates and teaching them other life skills like nurturing, which is something they all agree that they lack. Teaching responsibility and watching those who had no focus on life, begin to show interest in life...*

The findings of responsibility and confidence were noted by other participants:

*...the fact they are responsible for something else than themselves makes them not as selfish and to start thinking of other people.*

*The prisoners have something to look after other than themselves and this could be a first for some prisoners.*

*It is great to see the confidence building and teamwork between the women...*

*It has helped the inmates with confidence and the fact they are responsible for something else than themselves.*

*Our program also run psycho-educational sessions alongside the dog training which offers support around issues that might have been part of the offending behaviour such as boundaries, grief and loss, self-esteem, relationships and so on. This has proven to be as successful as the hands on sessions and have in several instances provided the women with eye opening moments during the program.*

These findings reflect those of previous studies that found PDPs provide inmates with the opportunity to learn skills that they otherwise may not have acquired (Britton & Button, 2005; Currie, 2008, Furst, 2006; Strimple, 2003; Turner, 2007). As is commonly accepted, offenders are more socially disadvantaged than the general population, with many unemployed, undereducated, and/or suffering from a mental illness (AIHW, 2015). Therefore, programs that address prisoners' needs and teach them life skills are important as they have the potential to reduce the prison population and the costs of incarceration on society (Borzycki & Baldry, 2003; Cullen & Gendreau, 2000; Marsh *et al.*, 2009; Przybylski, 2008). As a result, additional

research is required to quantitatively examine the impact PDPs have on recidivism and the value for money these programs provide to the community.

### Social Skills

Another benefit reported by participants was the ability for PDPs to break down barriers between inmates and correctional staff. As previous research suggests, the relationship between correctional staff and inmates is a negative one; often characterised by an 'us and them' mentality (Britton & Button, 2005; Marston & Bennett, 2003). In the current study, one participant recounted the impact the program had on an inmate-handler:

*We had an inmate here that had been in custody for about 16 years. He didn't speak to staff as a rule and avoided eye contact with us. He entered the program and the change was amazing...he helped train four dogs whilst here and it really helped him come out of his shell. I would walk with him to hand over the dogs to their new owners and he would always return shedding a tear. By the time he was discharged, he was talking freely with staff and was a lot more confident in himself. I really believe if he hadn't been in this program he would have been discharged from custody a different person.*

In addition, it was reported that PDPs also facilitate relationships between inmates. As two participants reported,

*...it brings inmates together that without the program wouldn't normally talk or affiliate with each other.*

*It's great to see the confidence building and teamwork between the women and increased capability to communicate.*

These findings are supported by a number of studies, which found that participation in PDPs can improve inmate-staff relationships, inmate relationships, and familial relationships outside the prison (Furst, 2007a; Mulcahy, 2011; Turner, 2007). Research conducted by McNicholas and Collis (2000) suggests that the dogs act as an icebreaker, providing a safe and neutral topic of conversation. These findings raise questions regarding whether the formation of human-dog relationships decreases the number of gang or other dysfunctional relationships formed in prison. Future research could examine the extent to which dogs provide social companionship and support to inmates and whether this reduces the need or desire for human-human relationships.



### Vocational Development

A number of participants reported that PDPs provided inmates with the opportunity to acquire job ready skills and qualifications. Of the 18 programs identified in this study, three offer nationally recognised qualifications in animal studies while one offers a certificate of participation. Moreover, four participants reported knowing former PDP participants working with animals in the community since their release. The theme of vocational development was expressed in the following participant's comments:

*Combined with the Certificate II in Animal Studies [the program] can provide prisoners with increased employment options for release.*

*...watching those who had no focus on life, begin to show interest in life and the job opportunities and options that may be available to them after prison and completing our program.*

*...gives inmates an opportunity to learn pet industry-related vocational skills that can help them find employment after their release from custody. They complete nationally recognised qualifications to enable them to train, exercise, and care for dogs rescued by the RSPCA in NSW.*

This is consistent with findings from other research, which found that PDPs provide the opportunity for inmates to develop skills needed to obtain and keep employment, such as a positive work ethic, dedication, and responsibility and provide the opportunity to receive certification from a recognised educational institution (Currie, 2008; Furst, 2006; Harkrader *et al.*, 2004; Strimple, 2003).

### GAPS IN SERVICE PROVISION

Of the 26 study participants, eleven reported that there was room for improvement in design, implementation, and operation of PDPs. These included the need to obtain additional resources, additional training opportunities for the dogs, and greater support from prison officers.

### ***Additional Resources***

Of the participants who recognised improvements were necessary, seven identified, more resources were necessary for the program to excel. In addition to monetary resources ( $N = 7$ ), more staff (and/or volunteers) and additional work hours dedicated to the program were

identified ( $N = 3$ ). For some it was to expand the program, for others it was to provide better facilities or employ qualified dog trainers:

*We would love to expand the program but there are no funds available to do this.*

*...with more money the program could be expanded to offer places for more dogs, the program could also run for more than six weeks... [It] could include hydro bath, grooming facilities and so on.*

*...it's a resource issue...I would like to get a [program] extension in the women's prison but the infrastructure would need to be built first, like an outside dedicated area for kennels, washing, feeding.*

*Would love to have a formal trainer....enter the prison on a regular basis to formalise and oversee basic training of the greyhounds to see better outcomes...and better teach the inmates.*

As reported above, the majority of PDPs rely on private donations. However, there are a number of programs that are partially funded by corrective services. Further research is needed to identify best practice; to examine whether corrective services should fund or partially subsidise these programs or whether the prison could manage a local pound and offer services to the public (i.e., grooming, dog handling) to earn income for the PDP and the prison.

### ***Additional Training Opportunities for the Dogs***

Four participants reported that there was a lack of socialisation for the dogs and as a result, additional training opportunities outside of the prison would be beneficial. According to Dennison (2005, p. 124) socialisation

*...is about exposing [a dog] gradually and systematically to different types of people, places, things, surfaces, noises, touch (from you and strangers), other dogs, and other species of animals... [Its] all about setting the dog up for success – introducing her to each new situation in such a manner that she won't be afraid.*

In the prison environment, the opportunities to socialise the dogs are limited. Two study participants reported that the lack of opportunity for the dogs to experience a variety of situations is a limitation of the program. A lack of socialisation can result in a timid dog who

is afraid of the unknown. As reported in this study, the majority of PDPs source the dogs through animal shelters. Research has shown that many of these dogs already have negative experiences and associations and their behaviour is often a primary reason for surrender (Diesel *et al.*, 2008). In a prison environment, it is not possible to provide a holistic approach to socialisation, as there are limited opportunities. This issue needs to be considered in future program management. One participant in the present study reported they addressed problems of socialisation by sending the dogs to foster homes after their prison stay so they were exposed to additional experiences. Another participant reported that one inmate handler was selected to take each dog for a walk outside of the prison to enhance socialisation opportunities. This approach can be found in a number of previous programs, which also granted special permission for selected inmates to take the dogs on trips outside the prison to get them used to different environments (Walsh & Mertin, 1994). However, as another participant reports, prisons are in “relatively remote locations” and as such “community access into varied environments is difficult”. Despite this however, PDPs are still considered a better alternative to the local pound or animal shelter with dogs in PDPs exhibiting fewer negative behaviours, than those left in the shelter (Hennessy *et al.*, 2006).

### ***Additional Support from Prison Officers***

The need for more support from prison officers was identified by four participants. One participant expressed the need for the officers to become more involved and show their support for the program. Another noted that “better communication” and “clear shared goal-setting” is needed between representatives from animal welfare and training organisations and corrections staff. This finding is consistent with the findings of Furst (2006) and Fournier *et al.* (2007) who found that staff resistance was one of the most negative aspects of the program. As research has found, the relationship between prison officers and inmates is characterised by a lack of respect in which neither the prison officers nor the inmates trust one another (Haney, Banks, & Zimbardo, 1973). While the reason for this opposition has not yet been examined, some correctional officers may favour punitive strategies and resent inmates’ participation in PDPs. As one participant noted in the current study:

*Unfortunately, some staff believe that the inmates don't deserve the opportunity to work with the dogs...*

To overcome this resistance, additional research is necessary to examine the staff-inmate relationship and identify reasons behind opposition to PDPs. It would also be useful to identify

whether this opposition relates to all correctional rehabilitative programs or only to PDPs. Information sessions for prison staff on the benefits of PDPs may be a practical way to avert any negative perceptions prison staff may have towards PDPs.

## SUMMARY AND CONCLUSIONS

The major contribution of this national survey of prisons and animal welfare and training organisations is a profile of the number and characteristics of PDPs operating in Australia. The programs were in all six Australian states and were most commonly a community service design with pounds and local rescue centres providing the dogs. Most programs were established after 2010, most implement screening procedures prior to participation, and are predominantly funded by private donations. Survey respondents overwhelmingly regard these programs as positive, with benefits identified under four themes: altruism, personal development, social and vocational skills. The most commonly cited negative aspects were insufficient funding, limited training opportunities for the dogs, and resistance from prison staff.

The findings of this study have revealed a number of avenues for future research. These included the need to conduct research with a larger sample across various populations including inmates, prison staff, program facilitators, and dog trainers in order to provide an unbiased, holistic view of PDPs. It would also be useful to interview prisoners, prison employees and animal welfare and training organisations who chose not to participate to explore the circumstances around PDP participant selection and the suitability of participants. A study examining the similarities and differences between the animal welfare and training organisations involved in PDPs and the impact of those on the outcomes of PDPs would also be useful. Furthermore, a study of the impact of human-dog relationships upon human-human relationships would be useful to understand the impact of the dogs on gang or other dysfunctional relationships formed in prison. It would also be worthwhile to examine the extent to which negative attitudes from prison officers impact the success of PDPs. Lastly, quantitative research to evaluate the costs of PDPs and identify ways to fund the program at little or no cost would be advantageous as well as an examination of the impact of PDPs on the unwanted dog population and euthanasia rates.

### ***Limitations of Research***

There were a number of limitations associated with this study. Perhaps the most significant limitation was the access restrictions imposed by some state and territory corrective services,

which prevented a number of personnel, both corrections staff and staff from animal welfare and training organisations involved in PDPs from completing the survey. As a result, this study does not provide an all-inclusive overview of PDPs in Australia. A further limitation is the seasonal nature of PDPs. As PDPs are still a relatively new intervention and there is little research to support the existence of such programs, PDPs are often terminated due to a lack of funding and/or support. As a result, PDPs listed in this study may be eliminated in the near future. Nevertheless, this research presents the only known demographic data of PDPs currently operating in Australia and is one of the few studies that incorporates both quantitative and qualitative research designs.

## CONCLUSION

The notion of prison as an effective method of crime control is becoming increasingly questionable. As such, there has been a gradual shift toward community corrections, which places an emphasis on reformative rather than punitive measures. The main objective of the national survey reported in this chapter was to identify the nature and extent of PDPs currently being administered in Australian prisons. Despite the increase of PDPs offered, there has been very little research conducted on their effectiveness for prisoner rehabilitation. Future research needs to assess the quality of these programs and identify whether, and on what basis, these programs represent ‘good practice’ to inform future design, development, and implementation of PDPs. As Furst (2006, p. 425) asserts,

*Given all that is wrong with our prisons, the possibility of PDPs being identified as reliable and effective treatment is alluring.*

Through pairing prisoners and dogs, those at risk of offending have the opportunity to develop life-enhancing skills that can assist them to deal with difficult life situations in a positive way, subsequently reducing their likelihood of reoffending. Therefore, the potential for PDPs operating in Australian prisons for facilitating desistance was examined in case studies of three Queensland prisons. The study is described in the next chapter.

## 5. Evaluating PDPs in Australia

---

As discussed in chapter 2, research has demonstrated that prison is an ineffective method in crime control with the majority of ex-prisoners reoffending and returning to jail (ABS, 2016b). As a result, new approaches to rehabilitation that teach offenders life-enhancing skills need to be considered in order to challenge and change offender behaviour and reduce reoffending rates (Strimple, 2003). PDPs have been implemented in a number of prisons as a supplement to imprisonment as they are an altruistic activity that enable offenders to compensate for their crimes committed, encourage personal development, and promote desistance post-release.

The national overview of PDPs described in the previous chapter can be complemented by a closer examination of specific programs. This chapter presents the findings of the second study, which sought to evaluate the effectiveness of PDPs specifically to identify the circumstances in which inmates are most likely to benefit from PDPs and how these programs can assist inmates in meeting their immediate and future needs. In what follows, the physiological, psychological, social, vocational, and environmental benefits of PDPs are reviewed along with the long-term impact of PDPs on criminal behaviour and desistance. The study findings are presented in accordance with the following research questions.

1. How can PDPs assist in meeting prisoners' immediate and future needs and encourage desistance?
2. In what ways can PDPs be improved: for inmates, for staff, and for the dogs?

### PRISON DOG PROGRAMS

Prison dog programs (PDPs), are a rehabilitative intervention which involve a dog being paired with one or more carefully selected inmates who train, socialise and care for the dog for a specified period of time or until the animal is ready to be rehomed or move on to advanced training as an assistance dog for individuals with a disability. In the process, inmates learn skills that assist their rehabilitation. Anecdotally, research suggests that PDPs provide many positive physical, psychological, social, behavioural, vocational, and environmental benefits for not only inmates involved in these programs, but also non-participant inmates, corrections staff, the dogs and society (Britton & Button, 2005, 2007; Cooke & Farrington, 2014; Furst,

2006, 2007b, 2007a; Fournier *et al.*, 2007; Katcher *et al.*, 1989; Turner, 2007; Walsh & Mertin, 1994).

While the number of PDPs implemented around the world is increasing, research on current programs and their impact on prisoners is limited. In Australia, the disparity between program implementation and program evaluation is particularly apparent, with more than 18 prisons in six states and one territory conducting a PDP (see study one), while only three studies have examined the effectiveness of three of these programs in Victoria, Western Australia and Queensland (EECS, 2012; Mulcahy, 2011; Walsh & Mertin, 1994). Consequently, there is little empirical evidence to support, or dispute, the effectiveness of PDPs as a rehabilitative intervention. Further research is needed to explore PDPs in Australia to identify optimal program design, including program objectives, and conduct ongoing program evaluations to ensure program success.

### ***Physiological Benefits***

There is a dearth of research regarding the physiological impact PDPs may have on prisoners. This may be due to the difficulties researchers can experience in seeking permission from prison authorities to access the prison population. Only one study, conducted over two decades ago at the Lorton Correctional Facility in the state of Virginia in the United States (US), has attempted to examine the physiological impact pets have on inmates (Katcher *et al.*, 1989). The study consisted of 20 male prisoners whose blood pressure was measured with and without their pet present in a two-treatment crossover design. Results indicated that when participants talked to their pets, there was a significant drop in blood pressure. However, there was no change in blood pressure when participants talked to the experimenter with or without their pets (Katcher *et al.*, 1989). Prison is a hostile environment and prisoners are quick to learn to become hyper-vigilant and alert for signs of threat. However, this is problematic in research as interpersonal distrust and suspicion can result. This may partially explain findings from the study in which no changes were found in prisoners' blood pressure when talking to the experimenter regardless of whether their pet was present. Yet, anecdotal reports from prison participants have also identified a number of physical changes experienced as a result of participating in PDPs (Furst, 2007a; Megarani *et al.*, 2016; Minton *et al.*, 2015). For example, Furst (2007a) identified a number of physical changes that inmates had experienced since participating in PDPs, including weight loss, increased exercise, more energy, improved sleep patterns, and stabilisations in blood sugar and blood pressure.

## ***Psychological Benefits***

Most studies on PDPs have been conducted in the US and focus on the psychological impact of these programs on inmates. The most reported psychological benefits for inmates include a sense of responsibility, self-esteem, patience, and an improved mood. Of these, an improved sense of responsibility is one of the most reported psychological benefits (see Cooke & Farrington, 2014; Currie, 2008; Furst, 2006, 2007a; Mercer *et al.*, 2015). Caring for an animal imposes routines and schedules, with inmate participants responsible for feeding, watering, grooming and training the dogs (Mercer *et al.*, 2015). Learning to take on responsibility is a life skill and can assist inmates in a variety of ways including in their roles as parents (Turner, 2007).

Patience is another commonly identified benefit (Britton & Button, 2005; Currie, 2008; Furst, 2007a; Merriam-Arduini, 2000). Currie (2008) found over one-third (37%) of current and former US inmate participants reported an increase in patience as a result of working in the program, with most reporting that teaching a dog a command until it masters it requires a considerable amount of patience. This finding was reiterated in an evaluation of *Project Pooch* at an Oregon youth facility in the US where participants noted that patience was a necessary part of teaching the dog. In this study, participants were asked to rate how much they changed on a scale of 1-10. For patience, the average rating was 8.5 out of 10 (Merriam-Arduini, 2000).

Other positive psychological outcomes reported include improvements in inmates' levels of depression, anxiety and stress, along with increases in levels of trust, self-control, self-confidence, and self-esteem (Britton & Button, 2005; Cooke & Farrington, 2014; Currie, 2008; Davis, 2007; Furst, 2007a, 2007b; Leonardi *et al.*, 2012; Mercer *et al.*, 2015; Merriam-Arduini, 2001; Mulcahy, 2011; Richardson-Taylor & Blanchette, 2001; Turner, 2007; Walsh & Mertin, 1994).

## ***Socialisation Benefits***

Improved social intelligence (i.e., the ability to interpret verbal communication from others and sensitivity to norms governing appropriate social behaviour) is one of the most reported benefits of PDPs (Britton & Button, 2005; Cooke & Farrington, 2014; Fournier *et al.*, 2007; Mulcahy, 2011). Some of these studies found improvements in the way inmate participants relate to other inmates, while others found positive changes in the relationship between inmates and correctional staff. Mulcahy (2011, p. 85) describes the relationship between inmate trainers as “uncharacteristically cooperative, indicating a sense of teamwork and collaborative



achievement". Britton and Button (2007) suggest that the presence of the dogs improves inmate-staff relationships by softening a prison guard's often-authoritative stance and altering inmates' perceptions of the guard. Similarly, a study conducted by Mercer *et al.* (2015) found that PDPs improved inmates' communication skills and their ability to relate to and work with others. Turner (2007) found that both inmates and staff reported that the dogs in the program changed the context of their interactions. One participant described the dogs as acting as mediators between inmates and staff; often being the topic of conversations, which enhanced rapport.

### ***Vocational and Educational Benefits***

Studies have also shown that PDPs provide prisoners with the opportunity to learn skills and gain qualifications that lead to increased educational and vocational opportunities post-release (Britton & Button, 2007; Currie, 2008; Turner, 2007). PDPs teach participants the basic skills necessary to obtain and keep a job, including personal responsibility, dedication and respect (Furst, 2006). Many programs provide the opportunity for prisoners to obtain qualifications in animal studies, increasing employment opportunities post-release (Currie, 2008). In addition, some programs allow prisoners to progress through the program and become tutors and mentors to less experienced inmate trainers. This provides an additional opportunity for some prisoners to learn skills in management and administration (Harkrader *et al.*, 2004).

### ***Environmental Benefits***

PDPs also have a positive impact on the prison environment. Turner (2007) and Britton and Button (2007) report that having dogs in the prison calms and normalises the prison environment. As one participant reported in Turner (2007, p. 42)

*Go to a dorm that ain't, that don't, have dogs in it's got more tension in it. And if you go into a dorm that's got the dogs in it...it ain't got very much tension. It's very laid back. Everybody's thinkin' they're at home or something...*

It has also been reported that PDPs provide inmate participants a degree of freedom that is not typical of the prison environment (Britton & Button, 2005; Turner, 2007). Participants in the study by Turner (2007) reported this to be one of the main motivations for participation in the program. Inmates are free to train their dogs from morning to evening and have additional access to a fenced dog-yard and agility course. Britton and Button (2005) had similar findings, although the authors hypothesised that this calming effect was the result of the social control

exerted by the program rather than the impact of the dogs. Inmates not participating in the program (non-trainers) also benefited from the program with 33% of non-trainers indicating a positive change in the prison environment as a result of having the dogs in the prison (Currie, 2008).

### ***Impact on Inmate Behaviour***

Research examining misconduct amongst inmates participating in PDPs has produced mixed findings. While some studies found a reduction in the number of institution infractions among inmates participating in PDPs, others report no statistical difference in the number or severity of misconduct reports between prisoners who kept pets compared to those who did not (Britton & Button, 2005, 2007; Currie, 2008; Fournier *et al.*, 2007; Katcher *et al.*, 1989; Turner, 2007). Fournier *et al.* (2007) assessed the impact PDPs had on criminal behaviour at a minimum-security male prison in the US state of Virginia and found improvements in the frequency of institutional infractions for inmate participants in a prison dog program compared to a control group. Some researchers suggest that the threat of losing a place in the program or not being able to participate is a “powerful disincentive to misbehaviour” (Britton & Button 2007, p. 11; see also Currie, 2008). Alternatively, a participant in the study conducted by Turner (2007) suggested that the dogs reduce stress levels, thereby reducing the number of conduct reports.

### ***The Impact on Desistance***

There is a dearth of research on PDPs and desistance, with only one study discussing the impact of PDPs on desistance (Furst, 2007b, 2007a) and two additional studies examining PDPs impact on recidivism (Chianese, 2010; Merriam-Arduini, 2001). While some studies found zero reoffending rates, others found that those who participated in PDPs reoffended at a reduced rate than non-participants (Chianese, 2010; Furst, 2007b, 2007a; Merriam-Arduini, 2001). Furst (2007b, 2007a) hypothesised that PDPs encourage desistance and therefore reduce reoffending, as they help to develop a prosocial identity in the offender, assist social interactions, and provide the opportunity for prisoners to give back to society. Other studies similarly found that PDPs are an altruistic activity that provide opportunities for skill development, agentic experiences, and positive social interactions, all of which have been found to assist in the desistance process (Britton & Button, 2005, 2007; Button, 2007; Currie, 2008; Demyan, 2007; Furst, 2007b, 2007a; Healy, 2010; Lai, 1998; Strimple, 2003; Turner, 2007). While these are promising findings, caution should be used in interpreting these results

as recidivism data were anecdotally collected from prison officials. Therefore, it is possible that the zero recidivism rate was due to the relocation of an offender.

## RATIONALE FOR CURRENT STUDY

Previous studies have relied on observation, anecdotal accounts and self-disclosure to assess the effects PDPs have on inmates pre- and post-release (Britton & Button, 2005; Currie, 2008, Deaton, 2005; Furst, 2006). In Australia, only three prior studies have examined PDPs (EECS, 2012; Mulcahy, 2011; Walsh & Mertin, 1994). The first and only published study of PDPs in Australia was conducted between 1988 and 1989 at Northfield Prison Complex in South Australia by Walsh and Mertin (1994). This study found participation in the PDP resulted in an increase in inmates' self-esteem and a decrease in levels of depression. These results have been criticised, however, due to the fact that all inmate participants were about to be released from prison and therefore positive changes reported were as a result of this rather than the PDP.

In the second study, conducted at the Darling Downs Correctional Facility in Queensland, Mulcahy (2011) found that prisoners had similar levels of pet ownership and attachment to that of the general population. While improvements in mood, life satisfaction, self-efficacy and goal-directed thinking were all positive outcomes of the program, not all prisoners involved experienced these outcomes. Follow-up interviews with prisoners and prison staff regarding their experiences found PDPs provided the opportunity for prisoners to develop skills, including training techniques, social skills and behavioural controls, which participants noted increased employment opportunities, companionship, emotional expression, and personal achievement.

In addition to these studies, an in-house evaluation was conducted on a PDP at Hakea Prison in Western Australia (EECS, 2012). The evaluation provided evidence for a number of program benefits and challenges. This evaluation needs to be interpreted with caution, as in-house evaluations may be susceptible to bias (Ward & Wilkinson, 2006, p. 229). While these studies provide relevant insight into PDP programs, their relevance is questionable, as they are no longer administered due to prison closures or a lack of support and funding (Gray, 2013). As a result, new research needs to be conducted to fill this gap in the literature. Accordingly, the present study examined current PDPs in Queensland in order to evaluate their effectiveness and identify the circumstances in which inmates are most likely to benefit from PDPs and how these programs can meet prisoners' immediate and future needs and encourage desistance.

## METHODOLOGY

In 2016, case studies on prison dog programs were conducted at three Queensland (QLD) prisons; namely Numinbah Correctional Centre (NCC), Maryborough Correction Centre (MCC) and Southern Queensland Correctional Centre (SQCC). Numinbah Correctional Centre, located near the Gold Coast in South Eastern QLD, is a low security open custody prison farm located near the Gold Coast in Queensland. The facility is located on 1800 acres and houses up to 129 female prisoners. Maryborough Correctional Centre, located north of Brisbane in Aldershot is a medium-maximum facility that accommodates 320 high security prisoners and 180 prisoners located in residential accommodation. The Southern Queensland Correctional Centre located in the Lockyer Valley 94 kilometres west of Brisbane, is a privately owned and operated, low and high security, male prison, housing 104 high security prisoners in secure cells and 196 low security prisoners in residential units (QCS, 2017). The correctional centres that participated in this study were selected using convenience and purposive sampling procedures due to the inherent problems associated with gaining access to the prison population and the necessity for each prison to be currently implementing a PDP. While corrective services departments in NSW, TAS, VIC, WA and SA were approached only Queensland responded and approved the request.

A case study was appropriate for this study as the participants constituted a group of inmates training dogs in a prison environment. Furthermore, given that little is known about PDPs in Australia, a case study approach was selected as it provided the opportunity to explore PDPs in-depth and generate rich data through observation of program operation, the dogs and the prison set up as well as interviews with staff and prisoners. As Gerring (2007, p. 20) notes;

*“...the fewer cases there are, the more intensively they are studied, the more work merits the appellation ‘case study’.”*

### ***Participants***

A total of eight Caucasian inmates, one female, and seven male, with a mean age of 33, six Caucasian prison employees with a mean age of 39 and one Caucasian representative from an animal welfare agency participated in this study. Participants for this study were purposively selected based on their current involvement in a Queensland PDP. Queensland Corrections staff and representatives from animal welfare and training organisations participating in PDPs assisted the recruitment of inmate participants for this study. Once corrections staff

purposively selected potential participants, an individual from the animal welfare agency facilitating the PDPs invited inmates to participate in the research. If they agreed, the researcher, according to all guidelines set by Queensland Corrections and the University of New England Ethics Committee, then approached them. The number of participants selected was opportunistic as each program was different. The only female prison in Queensland running a PDP at the time of the study only allowed one inmate to be involved in the program at a time and therefore this is a limitation of this study. Furthermore, while a number of interviews were sought with representatives from animal welfare agencies only one agreed to participate.

### *Measures*

Semi-structured interviews and focus groups were used to enhance the interpretation of data derived from surveys returned in study one. Semi-structured interviews and focus groups were selected for their ability to allow the researcher to explore the experiences of prisoners and staff involved in PDPs in Queensland and gain insight into the thoughts, feelings, and intentions of PDPs participants (Patton, 2002, p. 341). While the majority of PDP research has relied on semi-structured interviews to explore the phenomenon, this research conducted focus groups in addition to individual interviews to enhance data collection that would otherwise be lacking without the interaction found in groups (Morgan, 1988, p. 14). The interviews and focus groups were conducted on-site at the three correctional facilities. Individual interviews were 20-30 minutes in duration; focus groups were 30-60 minutes duration. One interviewer and one correctional officer were present for all individual interviews and focus groups. The interview schedules, provided in appendices E and F, was designed around two central research questions:

- How can PDPs assist in meeting prisoners' immediate and future needs and encourage desistance?
- In what ways can PDPs be improved: for inmates, for staff, and for the dogs?

The interview consisted of four main sections. In section one, prisoner participants were asked information about the dog they were currently working with in the program (i.e., dog's name, breed, and tricks). Section two asked participants why they applied to participate in the program and what were the benefits and disadvantages of the program. All respondents indicated the time they had been in the program, the average number of dogs they currently interacted with, and the number of dogs they had trained while in the program. The third

section sought to identify participants' prior experience with dogs. For example, participants were asked if they had ever owned a dog as either a child or an adult or trained a dog. The fourth section posed a potential scenario of a post-release dog program and asked participants (1) if they would participate and (2) what potential outcomes a program such as this could provide.

The interview schedule was developed based on knowledge of and prior experience interviewing prison populations. Establishing trust and rapport in a prison environment is difficult and inmates and corrections staff may share a distrust for external researchers. Due to the limited time frame, utilising a conversational approach in semi-structured interviews and focus groups allowed the researcher to establish a greater sense of rapport, calming study participants and encouraging discovery within a short period of time (Morgan, 1988, p. 14; Patenaude, 2004; Roberts & Indermaur, 2008). In addition, language commonly used in academic research may inhibit or destroy any rapport when conducting research in prisons. Prisoners are commonly less educated than the general population and using jargon can reduce data due to a lack of understanding on the prisoner's part or a common distrust of the researcher (Patenaude, 2004; Roberts & Indermaur, 2008).

### ***Procedure***

The study design, information sheet for participants and questionnaires were put to the UNE Ethics Committee for review. Ethical clearance was obtained prior to commencement of the field work. Application was also made to the Queensland Department of Corrections Ethics Committee to seek permission to interview prisoners and staff in Queensland correctional facilities. An email was sent to the head office of Corrective Services in Queensland to identify which prisons facilitated a PDP. Using data obtained in study one and assistance from Queensland Corrective Services, six prisons were identified: Arthur Gorrie Correctional Facility, Numinbah Correctional Facility, Southern Queensland Correctional Centre, Maryborough Correctional Centre, Lotus Glen Correctional Facility, and Woodford Correctional Centre. A representative from Queensland Corrective Services subsequently sent out a memo to the General Manager of Custodial Operations requesting assistance from the Queensland correctional centres facilitating PDPs. A signed memo was returned and each prison facilitating a PDP was then contacted by the head office and asked if they would like to participate in the research. Information about the study, such as contact information, purpose of the research, procedures or methods to be used, length of study, anticipated benefits for participation, confidentiality, terms of participation, and signatures and dates were then

emailed to participants. Details of those who were interested in participation were forwarded onto the researcher to organise a date and time for interviews to be conducted. Informed consent was obtained prior to collecting any data. Semi-structured interviews were conducted with participants and recorded with their permission. Individual interviews were 20-30 minutes in duration. One interviewer was present for individual interviews and one to two prison guards supervised the interviews at each location.

### ***Data Analysis***

After the collection of all fieldwork data, all interviews were transcribed verbatim and analysed using inductive thematic analysis (Braune & Clarke, 2012). Thematic analysis is described as a systematic approach for “identifying, analysing, and reporting patterns (themes) across a data set” (Braun & Clarke, 2012, p. 57). Thematic analysis was appropriate, as it was necessary to focus on meaning across the data in order to examine the collective or shared meaning and experiences of study participants. An inductive approach is driven by what is in the data – the themes derive from the data, as opposed to a deductive approach where the researcher brings a series of preconceived concepts, ideas, or topics to the data (Braun & Clarke, 2012). According to Braune & Clarke (2012) there are six phases to a thematic analysis: familiarising yourself with the data, generating initial codes, searching for themes, reviewing potential themes, defining and naming themes and producing the report. The researcher familiarised with the data by listening to the audio data and reading and rereading, the interview transcripts. Potential items of interest were highlighted and preliminary notes were made identifying potential themes.

Initial coding of the data was completed using a Microsoft Excel spreadsheet. The coding process involved identifying and coding each interview prior to a process of interpretation (Boyatzis, 1998). Coding the interviews organises the data in order to identify emerging themes. A “good code” is one that captures the qualitative richness of the phenomenon under investigation (Boyatzis, 1998, p. 1). Once the data were coded, the researcher began to search for themes by reviewing the coded data and identifying areas of similarity and overlap (Braun & Clarke, 2012). A theme “captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set” (Braun & Clarke, 2006, p. 82). Identified themes were then reviewed to ensure uniformity with the data. Themes that did not work in relation to the data were recoded or expanded so that it more meaningfully encapsulated the data. Themes were then defined according to what was unique and specific about each theme. The thematic analysis was then drafted and the

themes were structured in a logical and meaningful way to ensure that each theme built on previous themes and told a coherent story about the data (Braune & Clarke, 2012, p. 69). Thematic maps were also generated to identify main themes, subthemes, and interconnections between the themes and subthemes. To ensure reliability and rigour experienced researchers reviewed the identified themes and coding framework.

## RESULTS

### *Program #1*

The female correctional facility, Numinbah Correctional Centre, is a low security open custody prison farm located near the Gold Coast in Queensland. The facility is located on 1800 acres and houses up to 129 female prisoners. The prison provides a number of rehabilitation programs, training, and work opportunities such as the PDP ‘Pups in Prison’ (PIP). The PIP program pairs the women with sick, injured, or pregnant dogs in need of specialised care and attention who have been abandoned or surrendered to AWLQ. At the time of the interviews in June 2016, there was one female dog, aged seven months being treated for kennel cough by one female inmate carer. The PIP program began at the facility in 2006 and is facilitated by AWLQ, a not-for-profit organisation that cares for and rehomes abandoned and surrendered animals. The program was originally set up to accommodate pregnant and abandoned dogs to ensure proper care and increase the length of time puppies can stay with their mother (eight weeks is optimal). Recently the program was expanded to include sick or injured dogs who need additional care that is difficult to achieve in a shelter or foster environment. Since its inception, approximately 12 to 15 prisoners have participated in the program and have cared for over 1000 dogs.

### Activities

Prisoners care for the dogs until a suitable home can be found for them. They feed and groom the dogs and provide one-on-one care to develop the dogs’ social skills. Prisoners are responsible for the overall health and wellbeing of the dogs as well as assisting dogs in their recovery. They are required to monitor and record the dog’s health and submit regular reports to AWLQ. This includes detailing the dog’s general health from day to day, such as the times that medication is given and details of the dog’s excretion etcetera. The dog spends as much time as possible with the handler during the day and resides in a purpose-built kennel facility at night.



### Staff

The program is funded by donations and successful government grants. It is primarily overseen by one prison officer and one AWLQ representative who visits the prison every three to four months or on the arrival of a new dog and/or puppies. Protocols are also in place to allow inmates participating in the program to contact the AWLQ representative any time for advice on the dogs.

### Pre-participation Assessment

Program participants are referred to the program after they express interest. Prisoners must not be currently completing community service work (a prerequisite of release), must have a minimum of 18 months remaining on their sentence and any inmate convicted of violent crimes or animal cruelty is not permitted to apply.

### Post-program

Inmate participants are released from the program when they are due to fulfil their community service work obligation as part of their pre-release rehabilitation obligations. The program provides no aftercare services.

### Collaboration

The program's primary collaboration is between AWLQ and Corrective Services Queensland. All program materials are provided by AWLQ while the state provides the space and the labour. The program enjoys an excellent relationship with the prison's administration, according to representatives from both AWLQ and Corrective Services Queensland and is part of "the reason for its success." According to interviews and observations, the majority of the facility's staff members are supportive of the program.

### Interviews

Three separate semi-structured interviews were conducted at this facility. Individuals interviewed included the only female prisoner participating in the program (and her dog), the prison officer responsible for the program and the AWLQ liaison officer.

### Program Benefits

An open-ended question asked respondents to identify the benefits of the program. All participants noted that the program provided all inmates (both handlers and non-participant inmates) with emotional support and opportunities for personal and emotional development.

As one prisoner reported,

*We're all missing family, friends, pets or whatever, so this is something we can pour our love into....you can't express emotions in here cause if you do it's kind of like you're seen as soft or whatever and because I'm not a career criminal, it's my first time in jail, this has been very, very hard on me. Having the dog when this place is closing in on me and all the girls are a bit too rough and ready for me I can grab a dog, grab the dog and sit in the kennel and just play with them or cuddle them or pat them or whatever and it's just, you can just express all that emotion to a dog. If you're feeling sad, they will cheer you up.....it's given me a chance to not get too jaded by being here in jail. I've been able to sort of use the dog and ground myself....I also I like to see the difference it brings to the girls... Like me, they're missing family, friends, dogs, cats and it's interesting to see, especially the, I shouldn't call the career criminals, but the ones who have been in the system a long time, they're rough, tough, they're going to take on the world, I walk down with the dog and their 'aw, puppy, puppy, puppy' and they just turn into big pussycats themselves and you see that true person underneath all that jail hardness or life hardness and I find that nice too and it gives the girls a reason to smile because there is nothing like a dog.*

Likewise, the AWLQ officer noted,

*It's wonderful to see the difference in the girls....a lot of these ladies haven't had a lot of opportunities for a very long time; for them to be able to express their compassion and have an emotional outlet is great.....Also too the understanding and sense of empathy. When it's in your face and when you're seeing these animals on a daily basis especially when you're out doing community service work, there's more inclination to be able to be empathetic than beforehand. They're actually seeing it from both sides of view.*

In addition, both the inmate participant and prison officer noted that having the dog around reduced tension among the prisoners and between the prisoners and the staff, making the inmates “more manageable”. The prison officer added,

*...the impact of having pets, or having dogs and puppies around, you can see the difference in the tension around the place, cause although we have only one primary*

*carer who looks after the dogs, if there's a few puppies out here they sometimes end up disappearing behind the trees, in [inmates accommodation] and even under the GDM's (General Duty Manager) desk.*

Other less reported benefits reported included the opportunity to gain administration skills, a good work ethic, and be more responsible, and increased education and employment opportunities post-release. Another benefit identified was the potential for the program to reduce the costs for AWLQ and corrective services. By reducing the number of dogs in the shelter environment and the likelihood that adopted dogs will be surrendered due to pre-existing behavioural problems, PDPs reduce AWLQ costs by reducing staff hours. It was also reported that the costs of care are also reduced by the fact that injured and sick dogs recover much faster in the prison environment compared to the shelter environment thereby reducing the costs associated with ongoing care. Furthermore, as PDPs have been found to rehabilitate prisoner participants, it is possible that PDPs can reduce prison administration costs due to a decline in recidivism and the number of ex-prisoners returning to jail.

Two respondents, one inmate participant and the AWLQ representative, also reported that the program benefited the dogs. The AWLQ officer noted the difficulties in fostering sick, injured or pregnant dogs and maintained that a PDP can alleviate these issues as the dogs are provided with constant care and socialisation day and night, which can improve puppy enrichment, recovery time for sick, injured and pregnant dogs, and gives the dogs a second chance by increasing their future chances of rehoming. The AWLQ representative explained,

*It's harder to get [sick] dogs foster homes because people who foster, want to foster because they love animals and if they love animals they've often got ones of their own and of course kennel cough is contagious so those sort of animals were spending pretty much their recovery time in a quarantine area in a shelter.*

The AWLQ representative further noted,

*The puppies have always been the best puppies we have ever got back because they've got that socialising. When you've got nine puppies in a home something is always missed, unintentionally, but there's not the time, whereas here, you've [124] girls and with everyone hands on.*

### Suggestions for Improvement

When asked if there were any improvements that could be made, both the AWLQ representative and the prison officer said they would “prefer not to fix the wheel”, however, they were open to looking at more inmate participants and additional dogs as well as the possibility of training the inmates in grooming and dog care. The female inmate participant noted that more training equipment and additional space to exercise the dog off lead would be advantageous. She also noted that it would be great if additional inmates and dogs could be involved in PDPs in not only this prison but also other prisons, adding,

*It'd be great if it [the PDP] could get back into maximum security prisons...society seems to think 'okay, you've broken the law' and that makes you a horrible person, whereas, it's kind of like, we can give to the dog and the dog can give to us.*

### Prison Aftercare

An open-ended question asked participants whether they would participate in a post-release dog program. All participants had hesitations about being involved. Both the AWLQ representative and prison officer noted difficulties with recently released prisoners being involved in a program located at AWLQ. The prison officer explained,

*One thing we have to be careful about is that when people go out they still may have a lot of contact with people who are still in here and it's not hard to leave things around. Say, somebody worked on a Sunday and dropped something off; somebody from here could easily go on a Monday and pick it up from the bathroom or something.*

However, both noted that they knew of ex-inmates now working and/or volunteering in the industry as a result of being involved in the PDP. While the inmate participant loved the idea of volunteering, she feared that she would “want to adopt every dog.” Furthermore, she had multiple dogs back at home that she needed to care for but she would consider volunteering as a foster carer or puppy raiser as long as there were no conflicts with her current dogs.

### **Program #2**

The second program, located in Maryborough Correctional Centre, a medium-maximum facility for male prisoners in Queensland, pairs inmates with Labrador puppies who are raised and trained to become assistance dogs for children with autism. The correctional facility accommodates 320 high security prisoners and 180 prisoners located in residential

accommodation. The program is facilitated by Smart Pups, a not-for-profit organisation located in the Sunshine Coast in Queensland. The organisation was set up in 2012 to improve the lives of children living with autism and their families by providing assistance dogs trained in task specific skills at no cost. The prison program, which is only one of the ways the organisation trains dogs, began in May 2016 and at the time of the interviews had four inmate participants (two primary and two secondary handlers) and two Labrador puppies. The dogs reside with the prisoners in the residential unit but are required to sleep in a crate in the communal living/kitchen area at night. This ensures a smoother transition for the dogs into their assistance roles.

### Activities

Prisoner participants are responsible for the general health and welfare of the dog and are required to complete regular observation reports. They are also required to train the dog in task specific skills that are required of assistance dogs.

### Staff

Staff members volunteer to oversee the program in addition to their primary duties.

### Pre-participation Assessment

Prior to program commencement a notice was posted around the residential complex inviting expressions of interest from prisoners. Prisoners interested in the program completed an application form and participated in an interview with the volunteer prison officer and a Smart Pups representative. Questions included why prisoners wanted to be involved in the program and its perceived benefits. Potential participants were required to be sentenced (i.e., not on remand), housed in residential prison accommodation with four other prisoners participating in the program, maintain a good behavioural record and be employed within the prison. Those convicted of crimes involving bestiality and/or animal cruelty are not permitted to participate. In addition, the personality of potential participants and relationships among the prisoners were also taken into consideration, as it was necessary to choose individuals who could harmoniously live together in one unit of residential housing.

### Post-Program

The program provides no aftercare services. Correctional staff members have no contact with ex-prisoners. While staff encouraged prisoners to volunteer with animal welfare or training organisations after release, there is no formal reference or job link.

### Collaboration

Trainers from Smart Pups regularly visit the prison to teach the prisoner participants how to train the dogs for their future assistance roles. The program is funded solely on donations. Smart Pups provides all training equipment (collars, leads, and crates), bedding, and veterinary care while prison officers donate their time to the program and personal finances to buy toys for the dogs (Smart Pups is considered an extra responsibility for officers involved).

### Interviews

Four semi-structured interviews were conducted at this facility. Two male prisoners and two prison officers involved with the program were interviewed. Participants were asked an open-ended question to identify what they most liked about the program and its benefits.

### Program Benefits

Program benefits reported included positive environmental changes due to improved relationships, increased self-satisfaction as a result of giving back and the opportunity for inmates to learn responsibility and teamwork.

Two staff members and two inmates noted a positive change in inmates and the prison environment. The inmates asserted,

*It's totally changed my life in jail...it really makes us feel human again.*

*I've been in jail for a few weeks and it makes a big difference to waking up in the morning to these fellas (the dogs)....it's a pleasure to be around them. They always greet you.*

During the interviews an exchange between two staff members involved in the program revealed that there was a difference between areas in the prison (i.e., residential and secure) and the staff who worked in each area:

*Staff 1: It's a pretty bad place to work and the responses from the prisoners are always negative but when you go into there [the residential housing units with the dogs], it's better.*

*Staff 2: ...it's a weight off your shoulders in a way. The officers who volunteer to be in this station as opposed to in cluster one or two are more pleasant.*

Both staff members also observed a change in both staff and inmates who may or may not be involved in the program when they were exposed to the dogs. As one staff member notes,

*It's the prisoners, it's the officers, whether you're involved or not. There's officers that work way over the other side and they just happen to walk past and they go 'oh wow!' and you just see them and it just makes their day... You see these real hard prisoners and see them, they won't want to look at the pups, they won't, and then you see them "oh bugger it" they got to have a pat through the fence, and they smile, and all of a sudden they look, you know they're trying to look so stern, but then they just melt. And I just think well if it makes their day just for that split second, you know, that's a good thing. You know they may not even be in residential, they can be from another area of the prison.*

One staff member maintained that in addition to the dogs ability to “turn both staff and inmates soft” there might also be a change in behaviour due to the fact that inmates who want to participate in the future must be infraction free for 12 months before applying to participate.

In addition, both inmates involved in the program noted the positive relationship the program fostered among inmates and between inmates and prison staff:

*Everyone is co-operative with the program and [the program co-ordinator] has been really good with everything.*

*You got to work in together with something like this for it to work out properly.*

Furthermore, one prison inmate and one staff member stated that the program allowed the prisoners to give back:

*It's giving them a purpose and it's a way also that they're giving back to the community, a few of em in the interview when asked why do you want to do this, it was like "Well all I've done is take from the community and I want to give back now and this is a way to do that" (prison staff)*

*Knowing that they're going to a good cause that's really making it [the program] worthwhile for me personally (inmate).*

### Suggestions for Improvement

An open-ended question asked respondents to identify the negative aspects associated with the program. All participants noted the biggest challenge of the program was identifying inmates who could successfully live and work harmoniously together. The inmates explained,

*Choosing the right people at the start would make it run even better.*

*I think the biggest problem we have is the interaction between other prisoners with each other...some don't get on with others and you have to move them out and you got to get these guys interviewed and you got to make sure that you've got the right personalities to look after the dogs.*

One staff member also noted the difficulties she had with regard to pairing inmates together to avoid personality clashes not only within the program, but also in other areas of the prison such as work schedules.

An additional problem correctional officers face, was timetabling difficulties. In this program, two inmates are assigned one dog so that one person is able to care for the dog at all times. One inmate is named the primary carer, while the other is designated secondary carer. She explains,

*...you got to get their employment right so one or the other [primary or secondary carer] is going to be there for each of their pups. Their employment is a priority...so if things are going well in their employment they're doing well, they're fitting well in that team etcetera you can't go disturbing that....When we were weighing up who would be the best fit, I actually went to the kitchen and spoke to the head of the kitchen and said, if we were to choose these two, (they were actually on the same roster so they both work the same days on and have the same days off) would we be able to swap their roster around? With one of them it was no we can't cause he has conflict with the other group; the other one, yes we could swap him. So we could have one on, one off, one on, one off. So things like that we can work with, it's still the same job. So that's all the little things we have to look into.*



Additionally, both staff members noted that there were additional problems between PDP participants and non-participant prisoners:

*Yeah there's peer pressure, and we've got a couple of good ones over there, but still they're being stood over....And there's some that wanted to be chosen and they didn't so they're jealous.*

*... it's all the extra special things that they've got... they're getting all sorts of extra attention, like yourself...the media...so they sort of get all this extra special attention and others are like 'oh yeah look at you', it's like a schoolyard... it's got to be a jealousy thing cause they can't control themselves and while they're not controlling themselves we aren't going to give them a dog to control you know. So that's it.*

### Prison Aftercare

When asked whether they would participate in a post-release dog program both inmate participants said 'yes'. They further added that a post-release dog program could lead to employment:

*There's a need for that sort of training for animals out in the community and that's a big thing.*

*...probably be an income in the end if you really wanted to go that far.*

When staff were asked if they thought a post-release program could be advantageous to prisoners, one staff member thought it was a great idea and added that it would help prisoners desist from crime, as it would remove them from harmful social influences:

*...by them going and doing that dog training...it would probably get them away from the people they would usually hang around with.*

The other staff member noted that whilst a post-release program could assist ex-prisoners to change their pattern of criminal behaviour by “giving them a purpose” and “something they can strive for”, it should be more of a “stepping stone rather than another institution that is too structured.”

### ***Program #3***

The third program, 'Pups in Prison' (PIP) facilitated by ADA, is administered in Southern Queensland Correctional Centre, a privately owned and operated, low and high security, male prison. The prison houses 104 high security prisoners in secure cells and 196 low security prisoners housed in residential units. PIP program pairs low security male prisoners with Labrador dogs aged 12 to 18 months with the purpose of teaching inmates to train the dogs for work as assistance dogs. At the time of the interviews in August 2016, there were eight prisoners and four Labrador puppies participating in the program. The PIP program began at this facility in 2012.

#### Activities

Participation in the dog program is an additional responsibility for inmates. Dogs are housed with the prisoners in residential housing units. Inmate participants are responsible for the overall care and welfare of the dog, basic obedience, as well as task specific training. In addition, inmates are required to conduct observation reporting and attend fortnightly classes with a representative from ADA that focuses on various aspects of the dog's training and health.

#### Staff

The program is overseen primarily by two correctional staff members with other correctional staff members monitoring the inmates and dogs involved in the program. ADA representatives visit the prison weekly and alternate between teaching prisoners how to train the dogs and meeting with correctional staff and discussing the program and its progress.

#### Pre-participation Assessment

Prisoners must submit an application to be considered for the program, which is then assessed for program suitability. When assessing inmates suitability for program participation, security level, time until release, and crimes committed are taken into consideration. Inmates are not permitted to participate if they have been convicted of an offence against animals. Inmate applicants must also have an 'enhanced' status, which relates to the number of infractions since incarceration, and be willing to live in the designated dog unit with other successful candidates. Inmates who pass these screening procedures are then invited for an interview and asked questions such as why they would like to participate in the program and the potential benefits of program participation.

### Post-Program

Inmate participants leave the program due to parole or release, because they are moved into a new facility or because they are penalised for inappropriate behaviour, which may or may not be related to the program requirements. Inmates who successfully complete the program receive a certificate of participation.

### Collaboration

The program is administered by ADA, a not-for-profit organisation that was established in 1996 to provide canine assistance to people with physical and mental disabilities in order to enhance their quality of life and improve their level of independence (ADA, 2016a).

### Interviews

Eight semi-structured interviews were conducted at this facility. Participants included three staff members involved in the PDP (one male and two female) and five high security male prisoners; three prisoners were primary carers and two were secondary carers.

### Program Benefits

Participants were asked to identify what they liked most about the program. Each prisoner participant involved in PDPs reported a different benefit to the others. While one prisoner enjoyed the challenge training dogs presented, others enjoyed the environmental change, learning patience and discipline, or the opportunity to give back to the community:

*The challenge, I like the challenge. It's probably my biggest thing. It is a challenge sometimes.*

*....sitting down and playing, training them, you're not worrying.....it's a nice atmosphere, it's something else to focus on you know.....they're calming.....as long as you're with a dog, you're not doing time.*

*For me personally it teaches me discipline; stuff like I've never had in my life. Not only am I helping people with a disability but I believe it's helping me...it's teaching me to be more patient...because you teach your dog to sit or teach it to find and hold it takes a lot of half seconds. He held it for half a second then he got it. It does get a bit frustrating at times but the more you work at it, it's just patience. You got to be patient with the dog. It's like trying to learn Chinese. You can't do it straight away... Never been patient in my life. I want to do things now. Let's do it now.*

*...it's the end result really; where they go to, who they get placed with that's the end result.*

When a follow-up question was asked to the prisoner who most liked the opportunity to give back, regarding how the program helped him as a person, he stated,

*It's not really about me it's about the dog.*

The three staff members who were interviewed about the benefits of the program all reported the presence of teamwork not only among the inmates but also between inmates and staff.

### Suggestions for Improvement

When asked to identify how the program could be improved, of the three inmate participants who recognised a need for improvement, two said that the ability to go out into the community with the dogs would be advantageous:

*They used to take the dogs out into the community and that's a part where I'd like to get that experience. We've got a couple of people up here now that have been out into the community with their dogs, people in jail, that would be a real help for me as well, to improve my training, cause I don't, I could train them here where the people are all wearing the same coloured clothes and I don't see the dog reacting when there's kids down the street, there's people, or there's traffic. Sometimes we get some feedback and it's kind of like I can't work on that, cause it's not, we don't get traffic in here, we don't get the sights, sounds and smells of a shopping centre and that's probably a hard thing, but that's how, that's why, [the staff] take [the dogs]. The dog does get it, but I'm missing out.*

*I was over at Westbrook. I was actually there for about three or four years...and at Westbrook, we were allowed to take the dogs out into the community. It was great interaction with the community...I always thought it would be really scary walking out of here but having the dog it became like a little security blanket and it's something to hold to...I actually did and I had a chocolate Labrador and everybody wanted to come up, like the fear factor went away...everybody knew we were from prison but they didn't care because they had the pup there and that sort of breaks that down.*

In addition, one prisoner noted that going out into the community was also helpful to him as it allowed him to get used to sights and sounds to which he was unaccustomed:

*...you go into town you got cars going 'brum, brum', you've got the 'beep, beep, beep, beep' of the pedestrian lights. First time it's like 'Argh. What's that?' ...I freaked out when I went out there.*

Furthermore, two participants noted they often need to retrain the dogs because they often pick up bad habits when the staff take them on the weekends or volunteers take them for community socialisation:

*I see him go with some other people and they're not as strict as I am. They let him pull a little bit on the lead and I got to let them know, if you let the dog pull, he'll pull. If you stand still he'll come back into heel automatically, he'll just come back when the lead gets tight. But if you allow him to pull, he'll pull the whole walk.*

*There's a couple of things like when the dog comes back from the weekend the dog would go straight back behind my leg to heel, and that's not right, he's got to come to the side of me, walk right around.*

One inmate participant suggested that beginning training at a younger age might be advantageous:

*...sometimes you're just retraining with older pups, younger pups would reduce the retraining, and it would just be training....get it right first time.*

Lastly, one prisoner also noted that picking “more appropriate people” to participate in the program would be better:

*...it's up to [the program co-ordinator] to pick more appropriate people. Some people want to do it because they think it's a bludge, but it's hard work. They're with us 24 hours a day. If they've got diarrhoea at night, we got to help them - clean it, pick it up.*

For the staff, only one identified a negative aspect of the program. The “emotional attachment to the dogs” made it hard when they moved out of prison and on to further training.

### Prison Aftercare

When asked if they would like to own a dog when they are released from prison, three inmates said they already had dogs waiting for them on the outside, while one expressed he would like to obtain more knowledge and experience about training dogs before getting a “travelling companion”. Another did not want a dog of his own but wanted to continue volunteering through ADA.

An open-ended question asked participants whether they would participate in a post-release dog program. Of the five prisoner participants, three were definite about wanting to participate in a post-release program while the remaining two were unsure whether they would want to participate citing that they “can’t think that far ahead.” Those that were interested, however, noted that participation in a post-release dog program would not be an immediate goal:

*I have to focus on myself first. If that, without sounding selfish. By the time I get out, I'll have done nine years so I need to concentrate on myself as in getting on my feet and concentrating on a job and all that sort of stuff, but in the future yes.*

*I'd like to continue helping with Assistance Dogs Australia when I get out, just have to get a job first and have that match up with work and yeah I'd like to do this on a voluntary basis.*

Of those that showed an interest, two inmates reported the reason they wanted to participate was that it would be a positive and worthwhile activity:

*I used to play sport when I was out and I need a hobby so if I had that as something else to do, a positive thing to do in my down time, it'd be good for me.*

*It'd be like I'm doing something worthwhile and positive....give me a sense of accomplishment I guess.*

Another inmate added,

*What greater tool can you give a violent offender than the responsibility of looking after another life?*

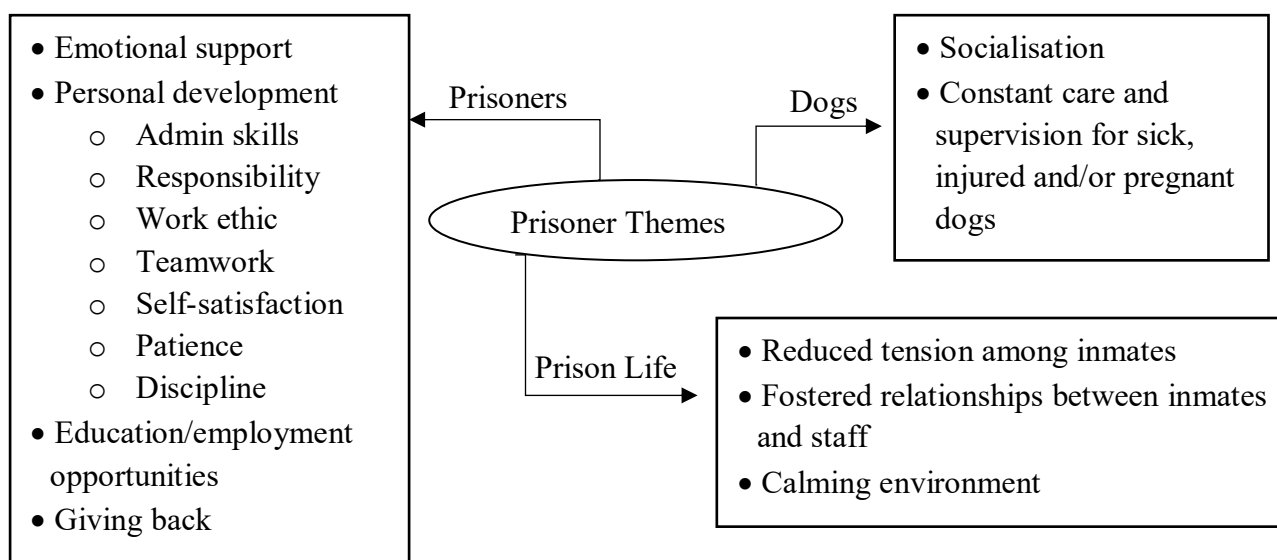
He also noted that it would help ex-prisoners cope “in terms of their emotions and anger and things like that.”

## DISCUSSION

This study aimed to identify the positive and negative aspects of PDPs, the history of dog ownership among prisoner participants and the potential impact a post-release dog program would have on the immediate and future needs of ex-inmates. The three programs examined in this study had similar strengths and weakness and several key differences when compared with each other.

### ***Benefits of PDPs***

The themes identified during analysis of interview transcripts revealed a number of consistencies in prisoner PDP experiences. The topics that were consistent across interviews with regard to program benefits included the positive changes to the environment due to improvements in inmate-staff relationships and program incentives and the opportunity to give back to society. The broad topics and individual themes identified during analysis are presented in Figures 5.1 and 5.2 below.



*Figure 5.1 Benefits reported by prisoner PDP participants*

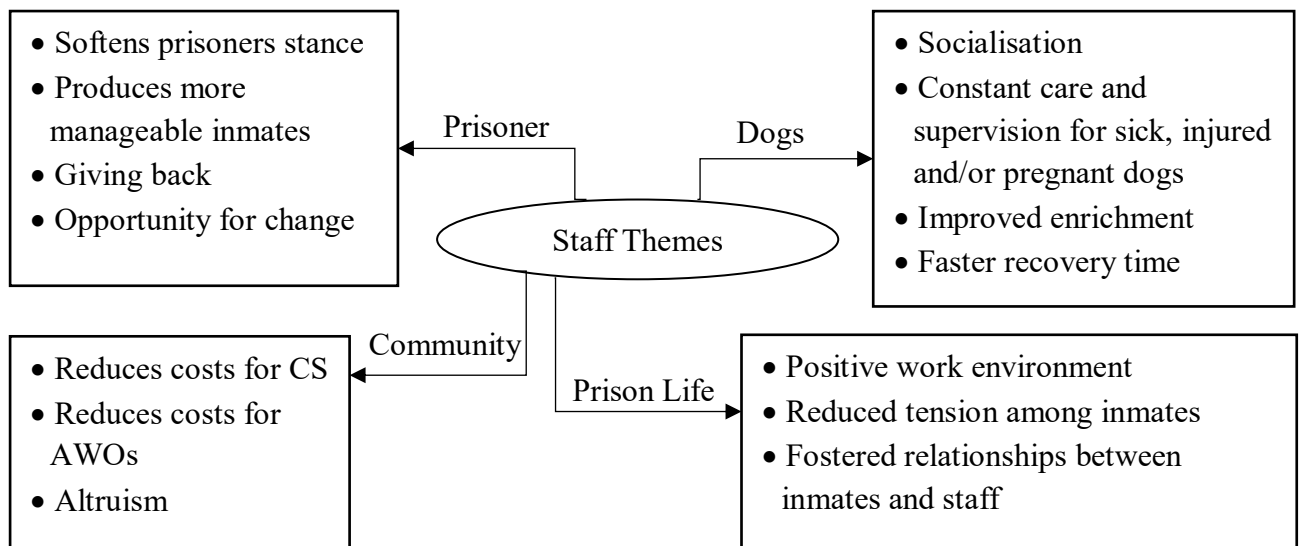


Figure 5.2 PDP Benefits reported by corrections staff participating in PDPs

The benefits of PDPs identified by the qualitative data in this study were not only consistent with the themes identified in prior studies but extended the applicability of these benefits from inmate participants, non-participant inmates, correctional staff, the dogs and society. Supporting a number of previous studies, the most commonly reported benefit across all three programs in this study was the positive change to the environment (Britton & Button, 2005, 2007; Cooke & Farrington, 2014; Currie, 2008; Drew *et al.*, 2013; Minke, in press; Turner, 2007; Walsh & Mertin, 1994). While inmates attributed this change to improved relationships among inmates and between inmates and staff, prison officers noted that the desire to participate in PDPs provide an incentive for positive behaviour. As previously discussed, prison is an environment that dehumanises prisoners and deprives them of basic human needs. While it is agreed that prison is a way to reduce crime, there is some debate over whether prison should only be used to punish offenders or whether it should be a way of transforming offenders. Those who view prison solely as a way to punish and deter offenders committing more crime, argue that prison should be as unpleasant experience as possible, depriving prisoners of their basic human needs and rights. However, research has shown that exposure to such an environment can have a significant impact on prisoners, creating dysfunctional habits of thinking and acting, subsequently decreasing the likelihood of desistance (Haney, 2012; Listwan *et al.*, 2011). The findings from the present study, and others, suggest that PDPs can facilitate a positive environment by normalising the prison environment, lowering stress levels, increasing levels of trust, improving relationships among inmates and between inmates and staff and providing a disincentive for misbehaviour (Britton & Button, 2005, 2007; Cooke



& Farrington, 2014; Currie, 2008; Drew *et al.*, 2013; Minke, in press; Turner, 2007; Walsh & Mertin, 1994).

As inmates in the current study highlighted, positive changes to the inmate-staff relationship has shown to be a common finding of PDP studies, which have proved to positively impact the prison environment (Britton & Button, 2005, 2007; Conroy *et al.*, 2012; Cooke & Farrington, 2014, 2015; Currie, 2008; Drew *et al.*, 2013; Harper & Chitty, 2005; Minke, in press; Minton *et al.*, 2015; Mulcahy, 2011; Predergast *et al.*, 2004; Turner, 2007; Wexler *et al.*, 1999). Additionally, a number of studies also support the prison officer's claim that PDPs facilitate a positive environment due to the desire to participate in the program (Britton & Button, 2005, 2007; Walsh & Mertin, 1994). Furthermore, prior to participation inmates are subjected to a rigorous screening procedure which require inmates to be infraction free for a specified period. As a result, inmates begin to behave themselves, which has a positive impact on prison staff by reducing their work load, the tension in the prison and their perceptions of prisoners as 'thugs' and ultimately makes the prison environment 'more pleasant'. Furthermore, the positive changes to the inmate-staff dynamic not only has a short-term impact on the prison environment but also aids in an inmate's process of identity transformation. As staff begin to see past the label of prisoner and identify that the inmates are a contributing member of society, inmates can begin to see themselves as others see them. Furthermore, through building relationships with others, inmates develop prosocial skills that can enhance employment opportunities and positively impact relationships with friends and family post-release. This process of building prosocial relationships encourages the desistance process as the investment in social bonds provides a disincentive to commit crime (Laub *et al.*, 1998; Maruna, 2001; Sampson & Laub, 1990, 1993).

However, despite these positive results, there were discrepancies between the programs as to their impact. While the participants of two programs noted that, the positive environmental impact extended to the entire prison population and all staff members study participants in the third program noted tension among inmate handlers and non-participant inmates due to jealousy. This finding has also been identified in other studies (Britton & Button, 2005, 2007; Minton *et al.*, 2015). Inmates participating in PDPs are often privy to additional privileges that can upset other non-participant inmates. Not only do prisoners get additional access to areas around the prison, some programs allow prisoners community access and interest in such programs results in visitations from research and media personnel. Furthermore, a lack of information regarding the program or conflicting views on dog training can result in

mishandling of the dogs by inmates, which has been found to cause conflict among inmates (Britton & Button, 2005, 2007). Fournier *et al.* (2007) also found that prison staff who were unsupportive of the program would hinder inmates' progress and ability to participate in the program based on the notion that prison is a punishment and inmates should not be enjoying raising and training dogs. This finding necessitates the need for PDPs to be tailored to individual and situation circumstances. No two communities are the same and program success may be dependent upon individual personalities and group dynamics. Future research is needed to examine why some PDPs encourage positive relationships, while others do not. Future research could conduct a pre-post-test to examine current perceptions of PDPs and whether an information session designed to inform program objectives and benefits, changes the perceptions of inmates and/or prison staff.

The second most reported benefit was the ability for prisoners to be involved in an altruistic activity. This finding is supported in a number of other PDP studies, which found that offenders gain a sense of satisfaction from helping others and giving back (Britton & Button, 2005, 2007; Button, 2007; Currie, 2008; Demyan, 2007; Lai, 1998; Strimple, 2003; Turner, 2007). PDPs provide prisoners with the opportunity to give back in a number of ways. Some programs provide prisoners with the opportunity to save dogs that would otherwise be euthanized, while others provide the opportunity for prisoners to raise and train an assistance dog for people with a disability (Britton & Button, 2005, 2007; Furst, 2006; Lai, 1998; Strimple, 2003). By giving back to the community, offenders can recompense in some way for the crime, and facilitate positive relationships in society (Harkrader *et al.*, 2004). Commonly identified as one of the protective factors associated with desisting offenders, altruistic activities, such as PDPs, can provide "a sense of purpose and meaning" which allows the inmate "to redeem themselves from their past mistakes" and encourage transformation among offenders (Maruna, LeBel *et al.*, 2004, p. 133). As society begins to see past the label and stigmatisation associated with prisoners an offender can begin to transform their identity. This acceptance from society also aids to increase an offender's self-worth and self-confidence further contributing to a prisoner's identity transformation. This transformation can lead the offender to reject past criminal identity and adopt a new identity, a new sense of self and a new set of goals. Altruistic activities can also offer links to employment by providing prisoners with the opportunity to develop vocational skills and experience. Identified as a contributing factor of desistance, employment has been found to provide offenders with a sense of responsibility, investment in social bonds, a disincentive for criminal behaviour and limits the opportunity for an offender to commit

crime (Healy, 2010; Laub & Sampson, 2003, p. 47; Merton, 1938; Sampson & Laub, 1990, 1993).

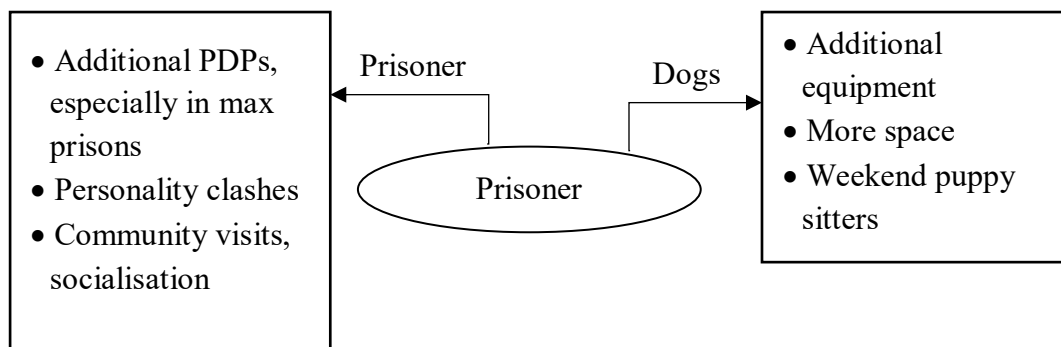
While both inmate participants and staff agreed that the program fostered a positive environment and provided positive benefits to the dogs, a notable discrepancy was found between inmates and staff. While prisoners commonly reported personal and developmental changes within themselves and others, including patience and responsibility, staff involved in PDPs did not. There are a number of factors that could contribute to this finding. Firstly, while the prison officers are responsible for the program, some are not active participants. As a result, of this, prison officers may not spend the amount of time needed to identify these changes. Secondly, personal and developmental changes are a subjective experience requiring introspection. The inmate-staff relationship may hinder the ability for staff to identify changes within prisoners. Furthermore, prisoners wear a 'mask' which aids to disguise their identity, thoughts and feelings which would subsequently make it difficult for prison staff to identify personal changes as a result of the PDP (Haney, 2012).

It was also evident in staff interviews and researcher observations that the three PDPs examined in this study may be among the most cost-effective programs administered inside a correctional facility. All supplies are generally provided by the administering not-for-profit organisations and the facility is responsible for providing the labour and the space. At least one staff member in each program studied, reported that the PDP can only be successful as long as it does not cost corrective services anything to administer. With the rising financial and social cost of imprisonment, introducing measures that reduce this cost is advantageous. According to the 2016 *Report on Government Services*, the recurrent expenditure on prisons and periodic detention centres totalled \$2.9 billion nationally in 2014-2015 (Productivity Commission 2016). While details of the percentage of this budget allocated to offender programs were unavailable, previous figures from the 2009-2010 financial year provide an indication of the financial costs of these programs. Of the available data from NSW, QLD, NT, SA, ACT, and TAS, \$280.9 million was spent on offender programs and rehabilitation. While this accounts for only a small percentage of the budget (9.6%), reducing any cost is advantageous. Expenditure comparisons between prison rehabilitation and community corrections reveals that for every ten dollars spent on offenders in prison, one dollar is spent in community corrections. The total cost for community corrections in the year 2014-2015 was \$500 million, compared to almost \$3 billion in prison costs. If PDPs can reduce this cost and give back to society by saving unwanted and abandoned dogs or training dogs for individuals with a disability as well

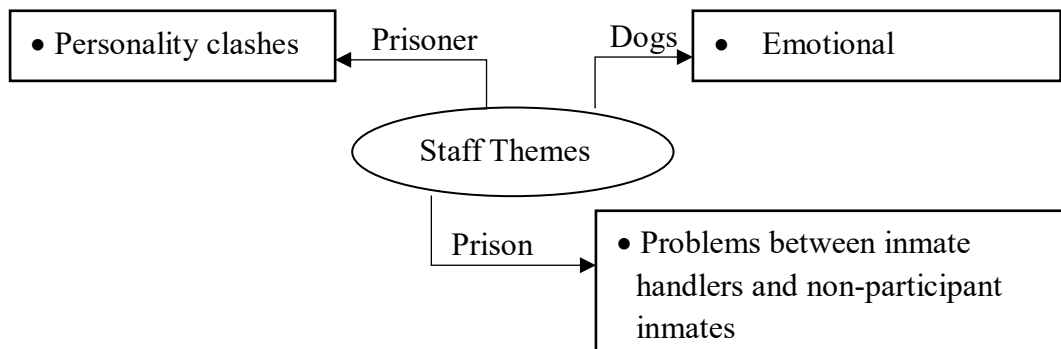
as addressing offender needs, why should Australia spend money unnecessarily on programs that only benefit individual participants and whose validity is yet to be determined?

### ***Suggestions for Improvement***

Although there were a number of perceived improvements reported in this study (see Figures 5.3 and 5.4), not all participants reported negative PDP outcomes. Six of the eight inmates and three of the seven staff participants, reported negative outcomes and/or perceived improvements.



*Figure 5.3 Prisoner PDP participants' suggestions for improvements*



*Figure 5.4 Suggestions for improvements by corrections staff involved in PDPs*

The most commonly reported negative outcome of PDPs among both inmates and staff was the personality clashes experienced between inmates within the program. While previous studies have reported problems between inmates in the program and non-participants inmates, no studies have reported problems within the program itself (Britton & Button, 2005, 2007; Fournier *et al.*, 2007). This may be due to the relatively novel nature of PDPs in Australia.

Although the first known program was implemented in Australia in 1974, the majority of programs implemented have ended as quickly as they started due to a lack of support and funding from corrective services (Gray, 2013; Walsh & Mertin, 1994). The lack of knowledge and experience of PDPs in Australia impacts on the successful development and implementation of such programs.

Another suggested improvement from inmates was the inclusion of community visits to assist in canine socialisation, as a lack of socialisation can result in a timid dog who is afraid of the unknown. The prison environment is not conducive to animal socialisation; all inmates are dressed in green and there are limited opportunities to encounter a variety of people, objects, and situations. One program solved this issue by starting the dogs in the program at 12-18 months of age. However, inmate participants noted that some of the dogs needed resocialisation due to negative experiences, or incorrect handling early in life. Similar to the findings in this study, research has shown that PDPs that allow inmates to take dogs into the community for socialisation not only benefits the dogs but also the inmates. Visits to the community can facilitate the assimilation and reintegration process, which can in turn encourage the process of identity transformation (Jesuit Social Services, 2014). Society begins to see the prisoner as a person and worthwhile member of society, which in turn encourages the offender to change his identity. Despite these positive findings however, Australia's vast landscape presents novel logistical problems that PDPs administered overseas may not face. Many of Australia's prisons are in rural areas, with some located hours away from the nearest city centre. Staff of one PDP examined in this study noted that although it was impossible to take the inmates into the community, they were provided with the opportunity to celebrate their achievement at a special dinner given to reward their efforts. Members from the community, who have been involved in the program or benefited from the program, also attend the dinner with the inmates. It would be useful for future research needs to examine visitation programs to determine whether community members coming into the prison could foster the same positive relations that community socialisation fosters.

### ***Prior Dog Ownership***

While the majority of PDP research has shown that inmate participants benefit from the program, others have found no significant impact. Given the disparity between these findings, questions arise regarding the circumstances in which inmates are most likely to benefit from PDPs. This study aimed to address this gap by examining the occurrence of prior dog ownership among prisoners participating in PDPs. The findings revealed that all inmates

participating in a PDP owned a dog prior to incarceration and all eight inmates reported owning a pet immediately prior to their imprisonment. As research has shown, Australia has one of the highest incidences of pet ownership in the world, with 38% of households owning at least one dog (Animal Health Alliance, 2016). The high incidence of prior dog ownership, raises questions regarding the PDPs may have on prisoners who have little or no prior experience with dogs. Do they experience similar effects to prisoners who have owned a dog? Future research is needed to compare the impact of PDPs between inmates with a history of dog ownership and inmates who have never owned a dog to examine the circumstances in which inmates will most likely benefit. Furthermore, future research also needs to identify the breeds of dogs previously owned by inmates as studies have found that types of dogs owned may be associated with negative personality traits in their owners. This will subsequently assist with participant selection and the successful implementation of PDPs.

Furthermore, findings of PDP studies could suggest that dog ownership post-release may result in similar outcomes and encourage desistance. However, the fact that all inmate participants had owned a dog prior to incarceration suggests that it is not the simple act of owning a dog that discourages criminal behaviour. Therefore, future research should also explore the aspects of PDPs that most likely facilitate desistance. Research could potentially focus on various PDP models, examine the outcomes of each model, and assess their effectiveness in reaching those outcomes. As the first study in this dissertation identified, not all PDPs and staff involved in PDPs have prisoner rehabilitation as a primary objective. Many assert that their main goal of program participation is the welfare of the animals or the welfare of individuals needing assistance dogs (e.g., Drew *et al.*, 2013). By identifying the goals of each program, the future development, implementation, and evaluation of PDPs could be enhanced.

### ***Perceived Outcomes of a Post-Release Dog Program***

The findings of this study revealed mixed results with regard to participating in a post-release dog program. Of the eight inmate participants, five indicated that they would definitely participate if given the opportunity, while the remaining three were unsure. Some inmates noted that such a program could lead to employment. As previous research has shown, employment promotes desistance through establishing positive social bonds, routine, and structure, encouraging responsibility, and limiting the time and motivation to commit crime (Healy, 2010; Laub & Sampson, 2003, p. 47; Merton, 1938; Sampson & Laub, 1990, 1993). Offenders often have trouble gaining and maintaining employment, and can often be underemployed due to a lack of educational and vocational experience:

*Underemployment refers to the fact that a large number of citizens...are employed in jobs that require low skills, provide low pay, and do not provide a sense of self-worth (Krienert & Fleisher, 2004, p. 85).*

PDPs can provide the opportunity for offenders to gain additional knowledge and experience that could assist them to gain meaningful employment. As Shapland *et al.* (2012) asserts the most successful programs for getting prisoners back into employment are those which coordinate work before and after release from prison. This suggests that the implementation of a post-release dog program could work in conjunction with PDPs and increase reintegration success.

As identified in this study, and others, dogs can serve as a social facilitator and assist ex-prisoners to establish positive social bonds and reconnect with the community (Cooke & Farrington, 2014; Currie, 2008; Davis, 2007; Dell & Poole, 2015; Furst, 2007b, 2007a; Jasperson, 2011; Jasperson, 2013; Leonardi *et al.*, 2012; Meers *et al.*, 2010; Mercer *et al.*, 2015; Minton *et al.*, 2015; Mulcahy, 2011; Turner, 2007). The dogs provide a neutral topic of conversation and assist the community to get past the offender's past identity. This can also assist in identity transformation in offenders as they begin to see themselves as worthy. Research has shown that the stigmatisation ex-prisoners often face can result in a negative self-concept as the offender begins to see what others see (Becker, 2008, p. 34; Lemert, 1967, p. 50; Mead, 1918, p. 589; Tannenbaum, 1938). By encouraging the community to relabel ex-prisoners, this can in turn encourage them to relabel and transform themselves.

Prison staff also provided different responses in relation to a post-release dog program with some supportive of such a program while others noted that the logistics of the program would have to be carefully planned and implemented. Those who were supportive of such a program reported that it would help prisoners desist from crime, as it would remove them from the negative social influences that can increase reoffending by giving them something to strive for and a purpose. As is noted in the literature, quality social bonds can facilitate desistance among offenders (Akers *et al.*, 1979; Ayres *et al.*, 1999; Farrall & Bowling, 1999; Giordano *et al.*, 2003; Maume *et al.*, 2005; Warr, 1998). The social bonds formed can provide offenders with positive role models, informal supervision and monitoring, support and change in structure and routines (Sampson & Laub, 2003). Sampson and Laub (2003) note that establishing quality social bonds can facilitate identity transformation which Maruna (2001) maintained is crucial to the desistance process.

Study participants, who were apprehensive about such a program, reported that their main concerns were regarding negative social bonds and institutionalisation. Research has shown that the chances of desistance occurring is diminished when ex-prisoners establish and maintain relationships with other ex-prisoners (Elliott & Menard, 1996). This idea is situated in Sutherland's (1934) differential association theory in which criminal behaviour is seen to be the result of interaction with other offenders. According to Sutherland (1934, p. 6), behaviour is shaped through our social interactions with others. When an individual's peer group consists of people with pro-criminal attitudes, it will increase the likelihood of offending. Whereas, if an individual's personal group has conventional attitudes, it will increase the likelihood of desistance. This is evident in a number of studies, which have shown that negative peer associations are more likely to increase, rather than decrease crime (Akers *et al.*, 1979; Ayres *et al.*, 1999; Elliott & Menard, 1996; Farrall & Bowling, 1999; Giordano *et al.*, 2003; Maume *et al.*, 2005; Moffitt, 1993; Warr, 1998).

Due to the fact that there is only one known post-release dog program worldwide, there is no research on ex-offenders experiences with post-release dog programs. However, a number of studies have examined the impact PDPs can have on recidivism with some studies noting that PDPs encourage desistance (Chianese, 2010; Furst, 2007b, 2007a; Merriam-Arduini, 2001). Research asserts that aftercare is essential for prisoners post-release to encourage successful reintegration into society. The preliminary findings of this study suggest that PDPs have the potential to support the desistance process; future research needs to examine the circumstances that encourage and/or discourage desistance.

### ***Limitations of Research***

A number of potential limitations of this study have been identified. Perhaps the most significant limitation of this study related to sampling. The problematic nature of gaining access to the prison population and the nature of PDPs impacted on the study in a number of ways. Firstly, the small sample size due to limited PDP numbers and the inmate's work schedules reduces the generalisability of this study beyond the scope of this thesis. Furthermore, access to NSW, VIC, WA, SA, and TAS correctional facilities was either denied or overlooked, further reducing the number of potential participants. Secondly, the selection of prisoner participants was assisted by corrections staff and the selection process may have been subject to bias and may have impacted the results of the study. Another limitation of the study related to the interview procedures, which relied on self-disclosure of participants in the presence of prison staff. For safety reasons, the researcher was accompanied by a prison officer



at all times and prisoners participating in the research may have censored their responses as a result of this. A further limitation of this study was the strict screening procedure inmates undergo prior to participation in the program and so results may show bias in favour of positive outcomes.

## CONCLUSION

The qualitative interviews with prisoners and staff conducted at three Queensland correctional facilities were consistent with results from other studies examining the benefits and challenges of PDPs. The main benefits identified as part of this study included a positive change in prison environment, improvements in inmate-staff relationships, and the opportunity for prisoners to give back. Challenges reported included personality clashes between inmates in the program and the lack of canine socialisation and community visits. Consistent with other PDP research, the findings of this study indicated that PDPs are a win-win for everyone. Not only do inmates participating in the program benefit but, non-participant inmates, prison staff, the dogs and the community also benefit from PDPs. It was also evident that PDPs examined in this study had the capacity to impact the desistance process through building prosocial relationships and encouraging identity transformations. Another significant insight this study revealed was the fact that dog-ownership on its own is unlikely to encourage desistance. This was evident in the fact that all PDP participants owned a dog prior to incarceration. Based on these findings and prisoner and staff perceptions of a proposed post-release dog program, it appears that ex-prisoners would most likely benefit from a post-release program if participants were supported by treatment professionals to make positive personal changes and avoid negative social influences, and did not feel restricted or institutionalised by the program.

## 6. PDPs and Emotional Intelligence

---

*Expression, recognition, and communication of emotional states are ubiquitous features of the human social world (Ermer et al., 2012, p. 1).*

The ability to express and recognise emotions is important for emotional competence and essential for effective interpersonal relationships (Stetina *et al.*, 2011). As research demonstrates, offenders tend to have significant deficits in emotional intelligence (EI), suggesting that low levels of EI may increase the risk of criminality (Hayes & O'Reilly, 2013; Moriarty *et al.*, 2001; Malterer *et al.*, 2008; Qualter *et al.*, 2010). This chapter presents preliminary data, obtained as part of the previous study, on the potential for PDPs to impact prisoners' ability to read emotion. During the interviews, described in chapter four, a series of photographs depicting a dog in a variety of situations and emotional states were presented to ten prisoners. The participants were then asked to provide judgments of the emotion they perceived to be displayed by the dogs in the photographs. Their responses were then compared with those of a control group of non-prisoners. Unfortunately, with only ten prisoner participants, no substantial statistical analysis could be conducted upon the data collected. Nevertheless, the data gathered in this research and the discussion that follows is important information that can guide future research on this topic. In what follows, emotional intelligence is defined, the literature regarding EI and offenders is reviewed, and the potential for PDPs to improve a prisoner's ability to identify emotion in dogs and humans is explored.

### THE IMPACT OF PDPs ON EMOTIONAL INTELLIGENCE

The ability to perceive and recognise emotion in oneself and others is a fundamental human social cognitive skill that facilitates interpersonal interaction, social learning, and empathic behaviour (Corden *et al.*, 2006; Fridlund, 1991). Roney (2001, p. 227) defines emotions as an outward movement used to express internal states and needs. The expression of emotions is manifested in three physiological changes; changes in the body, changes in expression, and changes in thought processes and are vital to survival and reproduction (McConnell, 2009, p. 8). Research has shown that there are seven emotions that are recognised and experienced universally across human cultures: happiness, sadness, fear, anger, surprise, disgust, and contempt (Ekman & Friesen, 2003). Each emotion has a distinct facial expression and is used

to convey a unique set of identifying signals to send clear messages to those around us (Ekman & Friesen, 2003, p. 10). For example, distress cues such as fear and sadness are designed to elicit empathy in those who see them (Marsh & Ambady, 2007; Preston *et al.*, 2002). It is argued that these expressions are central to social interaction as they provide information about emotions and intentions of others, evoke responses from receivers, and provide incentives for desired social behaviour (Keltner & Kring, 1998; Keltner & Haidt, 2001; Shiota *et al.*, 2004, p. 129). Problems relating to facial affect recognition can result in a failure to identify and appropriately respond to the social cues of others (Blair, 2003; Montagne *et al.*, 2005; Walker & Leister, 1994). The correct interpretation of facial expressions is needed for appropriate emotional reactions and appropriate behaviour in social situations. As McConnell (2009, p. 39) notes “emotional expressions act like lubricants in social interactions” and the inability to recognise emotions, particularly anger and fear, or confusing these emotions can lead to severe interpersonal conflicts (Stetina *et al.*, 2011).

## EMOTIONAL INTELLIGENCE

Emotional Intelligence (EI) is considered a key ability for effective functioning in everyday life and successful management of social relationships. EI refers to,

*“...the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth”* (Salovey & Mayer, 1997, p. 10).

While the term was not coined until 1990, the concept of EI was described earlier by other authors. The original idea has been traced back to Thorndike’s idea of social intelligence, which he defined as, the:

*...ability to understand and manage men and women, boys and girls – to act wisely in human relations* (Thorndike, 1920, p. 228).

Later, Thorndike’s son Robert and colleague Saul Stern identified an additional three areas including an individual’s attitude toward society, social knowledge, and capacity for social adjustment (Thorndike & Stern, 1937). Much later Gardner (1983) explored EI in his idea of multiple intelligences which included intrapersonal, the examination and knowledge of one’s own feelings, and interpersonal, the ability to read the moods, intentions and desires of others.

Despite these varying terms and models, at its core EI refers to the ability to recognise and regulate emotions in ourselves and in others (Goleman, 2001b, p. 14). It not only concerns the way in which individuals process information, but it also points to emotional competencies, which are the personal and social skills that lead to superior performance and are important to positive outcomes in family, the workplace and other life arenas (Cherniss, 2001, p. 9). Table 6.1 below illustrates Goleman’s (2001a, p. 28) framework for emotional competencies that consists of twenty competencies, divided into four clusters. McClelland (1998) found that those who exhibit excellence in six or more competencies and demonstrate strengths in at least one competency from each of the four clusters are outstanding performers at work.

Table 6.1 Framework for emotional competencies (Goleman, 2001a, p. 28)

	<b>Self</b> (personal competence)	<b>Other</b> (social competence)
<b>Recognition</b>	<p style="text-align: center;"><i>Self-awareness</i></p> <ul style="list-style-type: none"> <li>▪ Emotional self-awareness</li> <li>▪ Accurate self-assessment</li> <li>▪ Self-confidence</li> </ul>	<p style="text-align: center;"><i>Social Awareness</i></p> <ul style="list-style-type: none"> <li>▪ Empathy</li> <li>▪ Service orientation</li> <li>▪ Organisational awareness</li> </ul>
<b>Regulation</b>	<p style="text-align: center;"><i>Self-Management</i></p> <ul style="list-style-type: none"> <li>▪ Emotional self-control</li> <li>▪ Trustworthiness</li> <li>▪ Conscientiousness</li> <li>▪ Adaptability</li> <li>▪ Achievement drive</li> <li>▪ Initiative</li> </ul>	<p style="text-align: center;"><i>Relationship Management</i></p> <ul style="list-style-type: none"> <li>▪ Developing others</li> <li>▪ Influence</li> <li>▪ Communication</li> <li>▪ Conflict management</li> <li>▪ Visionary leadership</li> <li>▪ Catalysing change</li> <li>▪ Positive networking</li> <li>▪ Teamwork and collaboration</li> </ul>

The first dimension, self-awareness, refers to the ability to recognise and understand personal moods, emotions and drives and their effect on others. Individuals with accurate self-assessment are aware of their own abilities and limitations, seek out feedback and learn from their mistakes, and know where they need to improve and when to work with others who have complementary strengths (Goleman, 2001a, p. 33).

The second dimension, self-management encompasses six competencies, namely emotional self-control, trustworthiness, conscientiousness, adaptability, achievement drive, and initiative. Emotional self-control refers to the ability to regulate distressing affects like anxiety and anger,

inhibit emotional impulses and moods, and the propensity to suspend judgement and think before acting. Signs of this competency include being unperturbed in stressful situations or dealing with a hostile person without lashing out in return. Trustworthiness encompasses knowing, communicating and committing to one's values and principles, intentions and feelings, and acting in ways that are consistent with them. Conscientiousness includes being careful, self-disciplined, and taking responsibility for oneself. Adaptability refers to an individual's ability and flexibility in handling change. It includes that ability to be open to new information and to let go of old assumptions. Achievement drive relates to an individual's motivation and willingness to improve performance or meet a standard of excellence. The initiative competency refers to an individual's ability to pre-empt situations and be proactive rather than reactive. This often means taking anticipatory actions to avoid problems before they happen or taking advantage of opportunities (Goleman, 2001a, pp. 34-35).

The third dimension, social awareness encompasses the competencies of empathy, service, and organisational awareness. Empathy is "the ability to understand and share in another's emotional state or context" (Cohen & Strayer, 1996, p. 988). Empathy gives people an astute awareness of other people's emotions, concerns, and needs. The empathic individual can read emotional currents, noticing non-verbal cues such as tone of voice, facial expression, and body language. Research has shown that while empathic ability indicates prosocial and altruistic behaviour, its absence can signal antisocial and aggressive behaviour (Burke, 2001; Bush *et al.*, 2000; Miller & Eisenberg, 1988). The service competence is the ability to recognise, anticipate, and meet other people's needs. Organisational awareness refers to the ability for an individual to recognise and adapt to group social hierarchies, emotional currents, and power relationships (Goleman, 2001a, p. 36).

Relationship management, the fourth and last dimension, refers to an individual's ability to attune to or influence the emotions of others and includes the competencies: developing others, influence, communication, conflict management, visionary leadership, catalysing change, building bonds and teamwork and collaboration (Goleman, 2001a, pp. 36-38). Developing others involves sensing people's developmental needs and bolstering their abilities. Influence refers to the ability to be persuasive through sensing other people's emotions and reactions and responding in accordance with those emotions and reactions. Individuals with the influence competency genuinely put collective goals ahead of their own. In contrast, those who are insincere and self-interested manifest manipulation techniques rather than persuasion techniques. Conflict management refers to pre-empting trouble and taking action to resolve it

calmly. Visionary leadership points to a range of personal skills used to inspire others to work together towards a common goal. It also encompasses the ability to motivate, guide the performance of others, and lead by example. Change catalyst refers to the ability to recognise the need for change, remove barriers, challenge the status quo, and enlist others in the pursuit of new initiatives. Building bonds is the ability to build accounts of goodwill with people who may become crucial resources in the future. Lastly, teamwork and collaboration is the ability to work well with others (Goleman, 2001a, pp. 36-38).

## EMOTIONAL INTELLIGENCE AND PRISONERS

Although there are limited studies exploring the relationship between EI and the general prison population, research has shown that prisoners often have low levels of emotional intelligence and are deficient in a number of subcomponents of EI including empathy, social skills, flexibility, self-control, self-regulation, self-regard, emotional stability and facial expression recognition. A positive correlation has also been found between low levels of emotional intelligence and depression and stress intolerance, aggression and conflict and anti-social behaviours, such as drug and alcohol abuse and domestic violence (Bergeron & Valliant, 2001; Fisher *et al.*, 1999; García-Sancho *et al.*, 2014; Hayes & O'Reilly, 2013; Henley & Long, 1999; Hoaken *et al.*, 2007; Kirsch & Becker, 2007; Malterer *et al.*, 2008; Martin, 1985; McMurrain & McGuire, 2005; Owen & Fox, 2011; Packer *et al.*, 2009; Qualter *et al.*, 2010; Ross & Fontao, 2007; Strüber *et al.*, 2008; Visser *et al.*, 2010). These findings suggest that EI may be a predictor of criminality and since EI has been found to be an intelligence that can be learned, developed and improved, prison programming should consider PDPs as a means of improving a prisoner's EI (Hindes *et al.*, 2008; Stephens & Nel, 2014).

## USING DOGS TO IMPROVE EMOTIONAL INTELLIGENCE

Research suggests that humans process dog and human facial affect in similar ways (Schirmer *et al.*, 2013). Therefore, it is reasonable to hypothesise that participating in PDPs and learning how to read the behavioural cues of dogs may lead to an increased ability to recognise and process emotions in others. A number of studies on PDPs support this hypothesis and have shown how PDPs can facilitate improvement in each of the four dimensions of EI: self-awareness, self-control, social awareness, and relationship management.

### ***Self-Awareness***

Research has shown that PDPs can assist prisoners to identify, manage, and regulate personal emotions (Button, 2007; Cooke & Farrington, 2014; Davis, 2007; Harkrader *et al.*, 2004).

While giving up the dogs at the end of the program has been found to be an emotionally challenging experience for many prisoners, the ability to handle loss in an appropriate way is a life skill (Britton & Button, 2005; Cooke & Farrington, 2014). In this way, PDPs can provide the opportunity for prisoners to experience loss in a supportive environment where assistance can be provided to help prisoners develop positive ways of dealing with their emotions. Furthermore, it has also been suggested that the dogs in the program encourage the expression of positive emotions, such as love and compassion (Beck & Katcher, 1996, p. 153; Currie, 2008; Harbodt & Ward, 1991; Mulcahy, 2011; Richardson-Taylor & Blanchette, 2001). The dogs provide the opportunity for prisoners to express these emotions and, perhaps for the first time, receive unconditional love and acceptance in return (Currie, 2008; Richardson-Taylor & Blanchette, 2001).

### ***Self-management***

Studies have shown that participation in PDPs can positively influence all six self-management competencies, namely self-control, trustworthiness, conscientiousness, adaptability, achievement drive, and initiative (Goleman, 2001a, p. 34-35). PDP research has consistently found that PDPs can enhance a prisoner's self-control by providing the motivation for inmates to be disciplined and be in control of their behaviour. The majority of PDPs require inmates to be infraction free for a specified period of time prior to participation, and remain breach free to stay in the program (Britton & Button, 2007; Cooke & Farrington, 2014, 2015; Drew *et al.*, 2013; Klee, *et al.*, 2010; Merriam-Arduini, 2001; Minton *et al.*, 2015; Stetina, Gegenhuber, *et al.*, 2009; Stetina, Kuchta, *et al.*, 2009). Research has also shown that PDPs can positively change the relationship between prison officers and inmates by facilitating trust among inmates and between prisoners and staff (Cooke & Farrington, 2015; Dell & Poole, 2015; Furst, 2007a; Mercer *et al.*, 2015). PDPs have also been shown to encourage inmates to be conscientious. Participation in PDPs imposes routines and schedules which assist to develop self-discipline and responsibility. Inmates are responsible for feeding, grooming and training the dogs as well as completing regular reports on the dog's progress (Currie, 2008; Davis, 2007; Demyan, 2007; Drew *et al.*, 2013; Jaspersen, 2010; King, 2014; Mercer *et al.*, 2015; Minton *et al.*, 2015; Mulcahy, 2011; Turner, 2007). Furthermore, study findings have suggested that PDPs can encourage adaptability as it has been found that PDPs facilitate personal change among inmate participants. The willingness of prisoners to adapt to the program and begin to let go of old habits and assumptions assists in identity transformation, which Maruna (2001) notes is an important part of the desistance process. PDPs also encourage prisoners to strive for

achievement. Inmate participants are motivated due to the fact that others are relying on them and they wish to meet their expectations. This is particularly prudent in service animal socialisation models in which prisoners want to provide the best possible assistance or service dog for people with a disability.

### ***Social Awareness***

Research has shown that PDPs can positively impact a prisoner's empathic ability and service competence. Since offenders have been found to exhibit low empathy levels, it is reasonable to assume that low empathic ability could be associated with future criminal behaviour (Farrington, 1998, p. 257; Marcus & Gray, 1998; Bush *et al.*, 2000; Burke, 2001; Jolliffe & Farrington, 2004). PDPs can enhance a prisoner's empathic ability by providing the opportunity for inmates to help others. It also provides the opportunity for prisoners to understand how their actions can positively or negatively impact on others. In doing so, prisoners can also enhance their service competency by learning to recognise, anticipate and meet the needs of others (Britton & Button, 2005, 2007; Turner, 2007; Currie, 2008; Turner *et al.*, 2010; Mulcahy, 2011; Turner *et al.*, 2011; Drew *et al.*, 2013; Cooke & Farrington, 2014, 2015; Minton *et al.*, 2015). Since prosocial and altruistic behaviours have been found to increase the likelihood of desistance, PDPs that encourage social awareness are likely to encourage desistance among inmate participants.

### ***Relationship management***

Research has shown that PDPs can foster a number of relationship management competencies including influence, communication, conflict management, leadership, catalysing change, building bonds, teamwork, and collaboration. Through participation in PDPs, inmate participants can put collective goals ahead of their own. PDPs are an altruistic activity that retrain and resocialise unwanted dogs to increase their chances of rehoming and/or assist individuals with a disability gain their independence with an assistance dog (Furst, 2006; Drew *et al.*, 2013). Furthermore, studies have shown that PDPs can provide the opportunity for inmates to develop social skills, and enhance their competency in communication, conflict management, building bonds, teamwork and collaboration (Burger *et al.*, 2011; Cooke & Farrington, 2014, 2015; Davis, 2007; Fournier *et al.*, 2007; Mercer *et al.*, 2015; Merriam-Arduini, 2001; Minke, in press; Mulcahy, 2011; Stetina, McElheney, Burger, *et al.*, 2010; Turner *et al.*, 2010; Turner *et al.*, 2011; Turner, 2007). Lastly, research has also shown that



PDPs can be a catalyst for change, inspiring inmates to acknowledge their past mistakes and move toward self-improvement.

## THE EMOTIONAL ABILITY OF DOGS

*We've called dogs our best friends for centuries, and what is more basic to friendship than an emotional connection? A friendship with no emotional component is no friendship at all; it's a business arrangement (McConnell, 2007 p. xxvii).*

As discussed above, the domesticated dog, *Canis familiaris*, is thought to have the oldest relationship with humans. Although much research on dogs' awareness of and reactivity to human communicative signals has been conducted, little work has been done on the human ability to detect dogs' communicative signs (Bräuer *et al.*, 2006; Call *et al.*, 2003; Hare & Tomasello, 1999, 2005; Miklósi & Soproni, 2006; Miklósi *et al.*, 2003; Soproni *et al.*, 2001). Bloom and Friedman (2013), Wan *et al.* (2012) and Konok *et al.* (2015) are the only known studies examining the human ability to read visual communicative signals in dogs and the role experience plays in reading emotion in dogs. In Bloom and Friedman (2013) study three dog experts, 25 non-experts and 25 naïve participants viewed photographs of a single dog's face under six behaviourally defined conditions designed to elicit happiness, sadness, surprise, disgust, anger and fear. Expert agreement was found to be significant for all emotions ( $p = 0.002$ ) and the neutral expression ( $p = 0.001$ ). This study also found that the correct identification of emotions was positively correlated to experience, although experienced people were less accurate at reading aggressive expressions. This may be due to the fact that dominance and aggression are considered undesirable terms in the dog training industry and as such, many actively avoid using such terminology. Wan *et al.*, (2012) examined the role of experience in human's emotional perception had on individual abilities to interpret emotion in dogs. Study participants ( $N = 2163$ ) completed an online questionnaire consisting of videos showing examples of happy or fearful dog behaviour. It was found that canine experience reliably predicted the identification of fearful, but not happy behaviour ( $p = 0.001$ ), suggesting that knowledge of and experience with canines can enhance emotional recognition, particularly in relation to negative emotions such as fear. Konok *et al.* (2015) surveyed 83 dog owners in a study examining how humans recognise emotion in dogs and found that humans perceive a wide range of primary (i.e., fear, joy, sadness, curiosity, affection, interest, surprise, anger, anxiety, disgust) and secondary emotions (i.e., jealousy, embarrassment, guilt, shame, pride,

empathy and grief) in dogs. A second survey completed by 125 dog owners found that joy and anger are associated with high behavioural activity; shame and sadness are identified when a dog exhibits low behavioural activity and fear is somewhere in the middle. Given that studies on humans have found that expressive body movements also have an activity-passivity dimension, the authors conclude that human's perceive emotions in dogs in a similar way to how they perceive emotion in humans.

The considerable lack of research in this field could be due to a lack of agreement between scientists regarding the emotional life of dogs. While some assert that emotional expression is universal across all species, others argue that only humans can experience emotions (McConnell, 2009, p. xxvii). Despite this criticism, however, there is both behavioural and physiological evidence for the experience of emotion in animals. Darwin (1872/1998, pp. 57-59) famously illustrated the facial expressions in a variety of animals, including dogs, using cross-species morphological similarities in facial displays to argue for the homology and adaptive nature of emotion. Since then pictorial and visually descriptive representations of dog's emotions have been well documented in what Bolwig (1964) termed *ethograms*. An ethogram is a visually descriptive and/or pictorial catalogue of the behaviour of an animal species. The following descriptions depict each of the four emotions used in this research.

Relaxed, happy dogs tend to have relaxed and often slightly open mouths as the expression of 'fondness' and encapsulated

*...a slight eversion of the lips, and grin, and sniff amidst their gambols, in a way that resembles laughter (McConnell, 2009, pp. 43-44).*

Darwin (1872/1998, p. 56) provided a sketch of a dog in humble and affectionate frame of mind, as shown in figure 6.1, and noted how the dog's

*...body sinks downwards or even crouches, and is thrown into flexuous movements; his tail...is lowered and wagged from side to side, his hair instantly becomes smooth, his ears are depressed and drawn backwards, but not close to the head.*

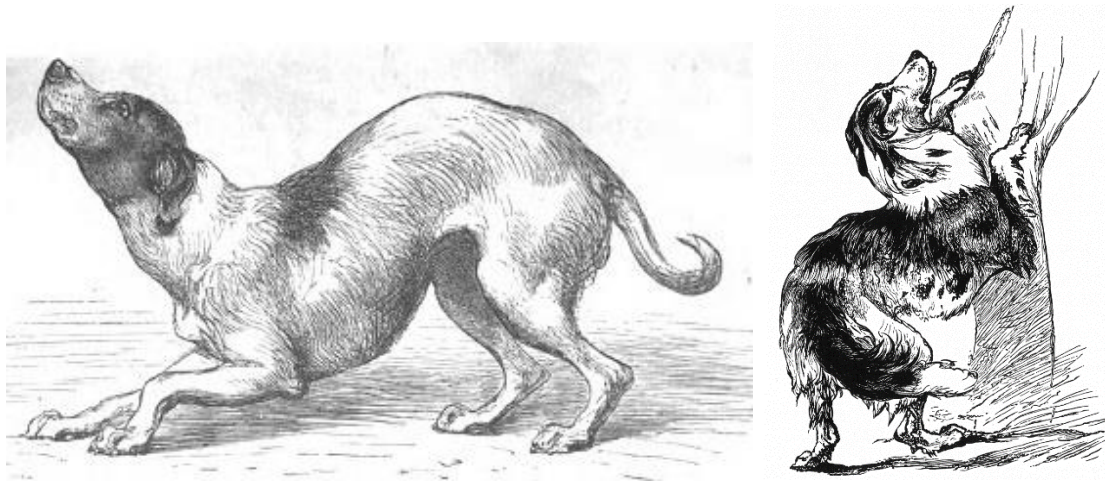


Figure 6.1 The dog in a "humble and affectionate frame of mind" (Darwin, 1872/1998, pp. 57, 59)

Sadness in dogs is manifested in large soft eyes and raised inner eyebrows (McConnell, 2009). Fearful dogs reduce their body size, crouching down into a low posture, flattening their ears, and holding their tails in a low position, often between their legs. Shaking, yawning, salivation, freezing, panting, and paw lifting are all identified visual behaviours dog's exhibit when experiencing fear (Beerda *et al.*, 1998, 1999; Ogata *et al.*, 2006).

Dogs experiencing anger exhibit a stiff and upright body, slightly raised head, erect and rigid tail, bristled hairs along the neck and back, pricked ears angled forward and a fixed stare as shown in Figure 6.2 below (Darwin, 1872/1998, pp. 55-56).

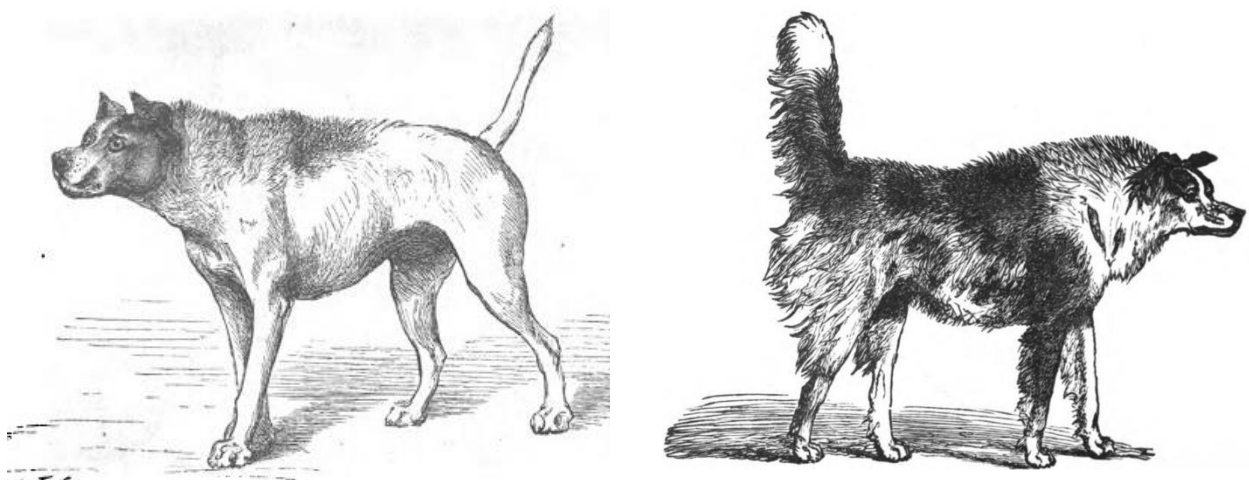


Figure 6.2 Illustrations of a "dog with hostile intentions" (Darwin, 1872/1998, pp. 57, 59)

Dogs experiencing fear can exhibit a variety of physiological responses and as a result is one of the most difficult emotional expressions to identify (Konok *et al.*, 2015; Wan *et al.*, 2012). Despite this however, humans and dogs share similar physiological responses when frightened. This universal response is referred to as the fight, flight or freeze response. Fear can often be mistaken for other emotions (McConnell, 2009, pp. 114-115). In an attempt to demonstrate differences in the expression of fear and anger in dogs, Lorenz (1963/2005, p. 93) created a three by three matrix (see figure below) of nine dog's faces (Figure 6.3). The first column, with labels a-b-c demonstrates a dog's face that begin neutral and increase in fear. Figure (a) demonstrates a dog in a neutral position with no fear. Figure (b) shows a dog with some fear. Figure (c) shows a dog completely fearful and ready to flee. Column two depicts a dog exhibiting increasing levels of aggression while column three depicts a dog exhibiting increasing levels of fear and aggression.

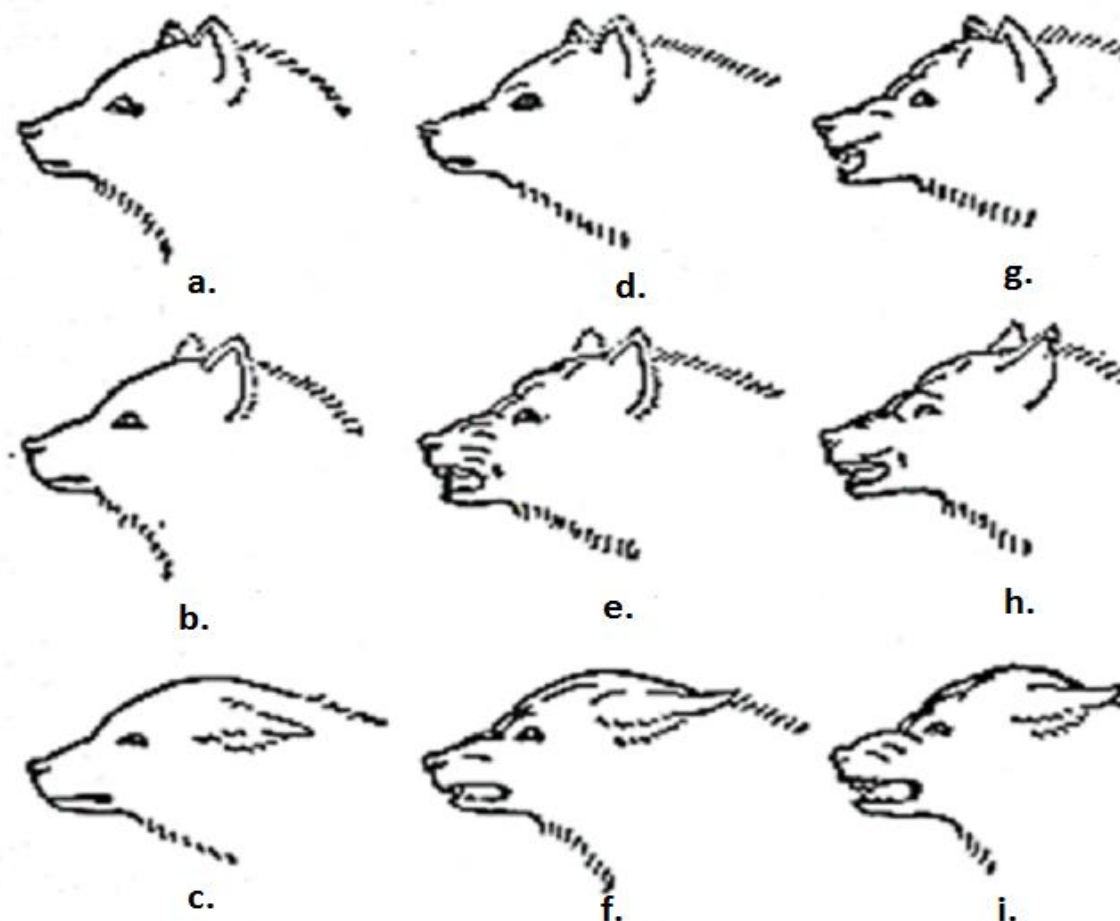


Figure 6.3 Aggression/Fear Matrix (Lorenz, 1963/2005, p. 93)

## HUMAN PERCEPTION OF EMOTION IN DOGS

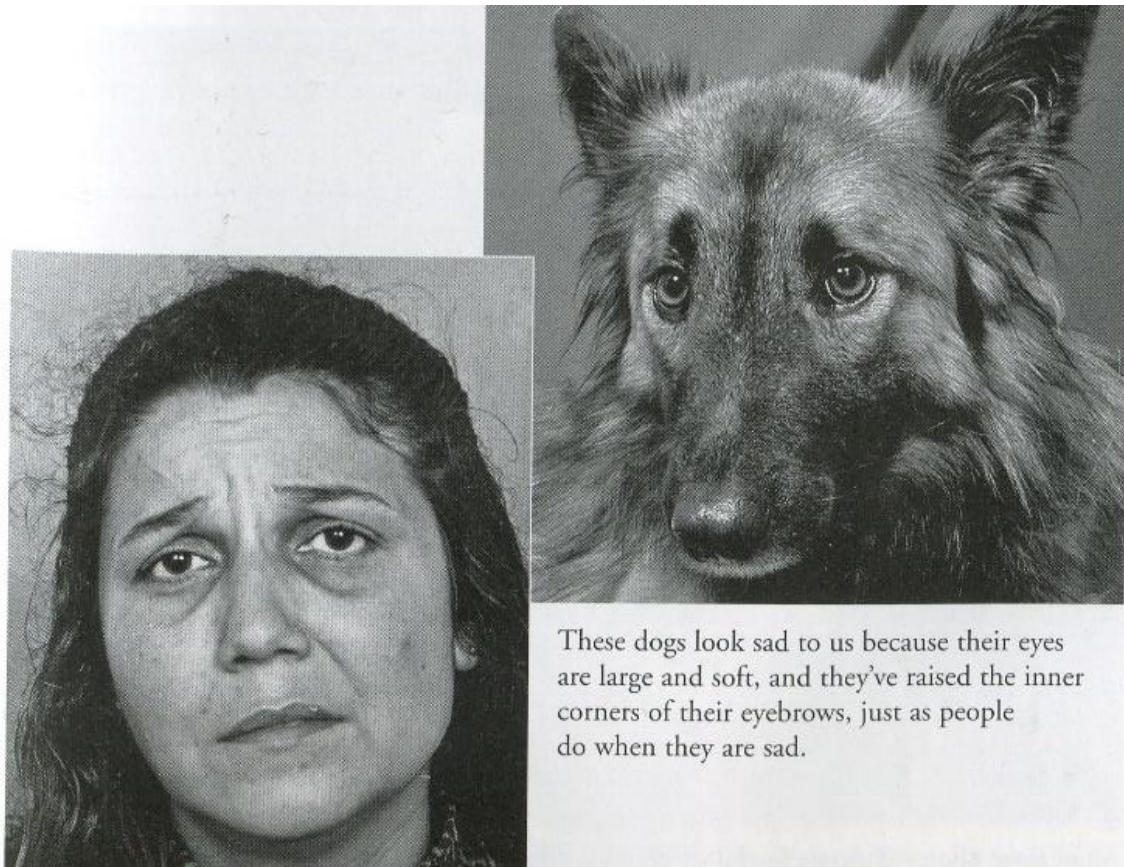
While little research has examined the human ability to identify emotion in dogs, existing studies suggest that the human perception of emotion in dogs may be facilitated by the likeness of emotional expression between humans and dogs (Schirmer, 2013). McConnell (2009) justifies the existence of emotions in dogs by juxtaposing photographs of dogs with photographs of human faces. Figure 6.4 depicts happiness in both dogs and people. As can be seen in the photographs below, the expression of happiness in dogs is not unlike that of a human smile:

*Happy dogs have the same relaxed, open faces as happy people. In both species, our mouths relax and our lower jaws loosen (McConnell, 2009, p. 211).*



*Figure 6.4 Happy (McConnell, 2009)*





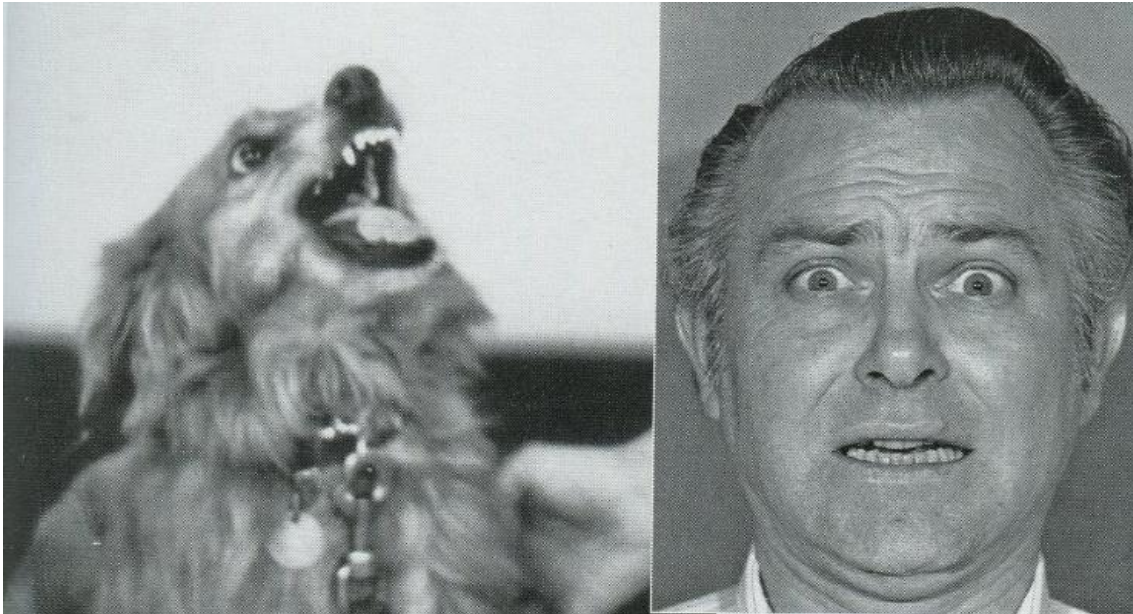
*Figure 6.5 Sad (McConnell, 2009)*

Figure 6.5 depicts sadness in humans and dogs and suggests that dogs raise the inner corners of their eyebrows, just as people do when they are sad and Figure 6.6 demonstrates how the face of an angry dog resembles the face of an angry human in. In both photographs, mouths are closed, lips are pushed forward and the eyebrows are furrowed (McConnell, 2009, p. 175).



*Figure 6.6 Anger (McConnell, 2009)*

Fearful expressions, as demonstrated below in Figure 6.7, are characterised by retracted corners of the mouth and rounded eyes in both humans and dogs (McConnell, 2009, p. 51).



*Figure 6.7 Fear (McConnell, 2009)*

While emotions in dogs may seem a reasonable and inevitable conclusion, some argue that identifying emotion in dogs is nothing more than anthropomorphism (McConnell, 2009, p. 14). Anthropomorphism is defined as the “attribution of human characteristics or behaviour to any other non-human entity” (Urquiza-Hass & Kotrschal, 2015, p. 167). However, anthropomorphism is not simply attaching emotion to a non-human entity; it also includes attributing human reasoning to the emotion and acting according to human conventions (McConnell, 2009, pp. 15-21). Rather than simply identifying that the dog is fearful; an owner is likely to justify why the dog is fearful, and then act according to human customs. For example, an owner who perceives that his dog is frightened, reasons that this is due to a loud noise and subsequently comforts his dog. While this is appropriate for humans, the way a dog learns means that this act of reassurance from his owner will result in the dog believing he had a valid reason to be fearful. Although it is evident that dogs have some mental capacity, the complexity and capability of this is relatively unknown. While it is reasonable to assume that animals, such as dogs, who have similarly organised brains, similar physiologies, and similar behaviours, will have similar experiences to that of humans, they are still fundamentally different from humans. Therefore, care needs to be taken to ensure that human reasoning is not also attached to the emotions of dogs (McConnell, 2009, p. 21).



## EMOTIONAL INTELLIGENCE AND PDPs

The few studies that have examined the EI of prisoners have found prisoners tend to have a lower EI than the general population (Ermer *et al.*, 2012). The following presents some preliminary data, obtained as part of the previous study, on the potential for PDPs to impact prisoner's ability to recognise emotions in others. During the interviews, described in chapter four, a series of photographs depicting a dog in a variety of situations and emotional states were shown to ten prisoners who were asked to provide judgments of the emotion they perceived to be displayed by the dogs in the photographs. The photographs were also judged by a control group of non-prisoner dog owners who acted as a control group. With only ten prisoner participants, no substantial statistical comparisons could be conducted with the data collected. However, the findings and the discussion that follows is important information that can guide future research on this topic.

The aim of the study was to build upon existing knowledge of prisoners' emotional intelligence by comparing PDP participants with current and previous dog owners in their ability to provide judgements of emotion in photographs of dogs. It aimed to address two research questions:

1. Can humans judge the emotional state of dogs using the behavioural cues captured in photographs?
2. Do inmates participating in PDPs, judge the emotional states of dogs, in a similar way to that of non-prisoner dog owners?

### ***Research Design***

Initially, this research was designed to be a quasi-experimental pre-post-test study intended to evaluate the impact of PDPs on a prisoner's ability to identify emotion in dogs. However, due to access restrictions, time limitations and the fact that PDP participation was ongoing and all prisoners had already been involved in PDPs for between six months to three years, the researcher was unable to arrange a pre- and post-test. Consequently, the study was re-designed and a two-group post-test only quasi-experimental design was suggested to examine the difference between PDP participants and non-prisoners in their ability to identify emotion in dogs. However, again, due to access restrictions and the small number of inmates participating in PDPs, only a small sample of prisoners were able to participate. As a result, no scientifically sound study could be conducted. Despite this, however, the data collected are presented below to initiate a discussion on the potential for PDPs to influence prisoners' emotional intelligence and as a foundation for future research.

## ***Participants***

The prisoner sample for this investigation ( $N = 10$ ) consisted of the same sample described in chapter four as a result of access restrictions and time constraints which made it impossible to obtain a new sample population. As a control group, an additional sample of non-prisoner dog owners ( $N = 49$ ) was obtained through social media in which an unlimited number of individuals were asked to complete an online survey created using *Qualtrics*. In experimental research, it is important to confirm that findings of the study are correlated to an independent or manipulated variable rather than to extraneous variables (Gill & Walsh, 2010, p. 252). In this research, the control group was used to contrast and compare the effects of dogs on humans' ability to identify emotional affect. A 96% completion rate was achieved, with all but two participants completing the whole survey. Copies of the information sheet and survey are provided in appendices G and H respectively.

## ***Measures***

This research is based on aspects of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). This model proposes that emotional intelligence is comprised of two areas: experiential, ability to perceive, respond, and manipulate emotional information without necessarily understanding it and strategic, ability to understand and manage emotions without necessarily perceiving feelings well or fully experiencing them. To test an individual's EI, four aspects are tested: emotional perception, facilitation, understanding, and management (Mayer *et al.*, 2003). For the purpose of this research, only emotional perception was tested.

Emotional perception, involves the capacity to recognise emotion in others' facial and postural expressions. This is traditionally measured using the human face and participants are asked to identify the emotions expressed in the faces. Recent research is exploring the human ability to read emotions in animals, including dogs (Bloom & Friedman, 2013; Konok *et al.*, 2015; Wan *et al.*, 2012). One of the limitations of research regarding emotional perceptions is the selection of appropriate stimuli. While a standardised stimuli database of human facial responses has been developed and used in research there is no standardised stimuli available for canine emotion perception used for the purpose of research. While there is general agreement among canid researchers, veterinarians, and other dog professionals on the appearance of a dog in various emotional states, there is no standardised set of dog photographs that have been piloted for use in research. Only one set of photographs of dogs' facial expression taken under behaviourally specified conditions could be found in the literature (Bloom & Friedman, 2013).

However, these photographs only show a face-on headshot of an Alsatian, which potentially anthropomorphises the dog. Consequently, it was necessary to develop, evaluate, and pilot a series of photographs that captured the entire dog in a variety of everyday settings, situations, and emotional states. Prior to collecting photographs, it was decided to use only four of the seven universal emotions defined by Ekman and Friesen (2003). The emotions of guilt, disgust, and contempt were not used for this study due to the complexity of obtaining data as there are questions regarding whether animals experience these secondary emotions (McConnell, 2009, pp. 13, 113; Morris *et al.*, 2008). Each emotion used in the study is behaviourally and operationally defined below, illustrated by one of the photographed dogs 'Elvis', a seven year old terrier.

*Happy*: The basic emotion that occurs when pleasure or excitement is experienced or when an individual's self-concept is affirmed (Ekman & Friesen, 2003, pp. 99-101). In this study, when Elvis's owner comes home at the end of the day, it was thought Elvis displayed a happy expression.

*Sad*: The basic emotion that occurs when loss is experienced or anticipated (Ekman & Friesen, 2003, p. 114). In this study when Elvis's owner left him, it was thought Elvis expressed sadness.

*Anger*: The basic emotion that occurs when frustrated or threatened (Ekman & Friesen, 2003, pp. 78-79). In this study, it was thought Elvis exhibited anger when an unknown person approached him and his owner.

*Fear*: The basic emotion that occurs when physical or psychological harm is anticipated (Ekman & Friesen, 2003, p. 47). In this study, when a balloon was popped, Elvis was thought to elicit a fearful response.

A total of 110 photographs were taken of four dogs (two terriers, one kelpie, and one golden retriever) from which 30 photographs were selected for evaluation by a panel of experts comprised of three individuals: two dog behaviourists, and one veterinarian. When selecting the 30 photographs for expert evaluation, several factors were considered, including the quality of the photographs, breed and behavioural diversity, and situation diversity. Of the 30 photographs, 25 were selected for their accurate portrayal of emotion in dogs, four photographs depicting anger, and six photographs for each of the other emotions.

The photographs selected were then used to pilot the study in a web-based survey created using *Qualtrics* software. The pilot study included questions about participants' demographics and experience with dogs, as well as their interpretations of emotion in the dogs depicted in the photographs. Based on the data from the pilot study and the ease of accurate interpretation of emotion in the photographs, a final sample of 18 photographs were selected for their accurate portrayal of emotions in dogs, three photographs depicting anger, and five photographs for each of the other emotions. The final survey (appendix H) was made available online for one month for the non-prisoner sample and was presented verbally in a semi-structured interview format for the prisoner sample, due to the common nature of some prisoners' lack of literacy skills.

### ***Procedure***

Due to the challenges experienced gaining access to the prison population, data obtained from the prisoner population in this study were collected simultaneously with the data collected in the previous study (chapter 5). As such, the procedures to gain ethical approval and participant selection were the same as described in the previous chapter. For the non-prisoner sample population, the information sheet (appendix G) and survey (appendix H) were made available online using the survey software program *Qualtrics*. Participants were recruited via email and social media. Each participant viewed the photographs and were asked to identify 'what the dog was feeling'. Consent was implied through the completion of the survey, which was explained in the information sheet attached to the survey (appendix H).

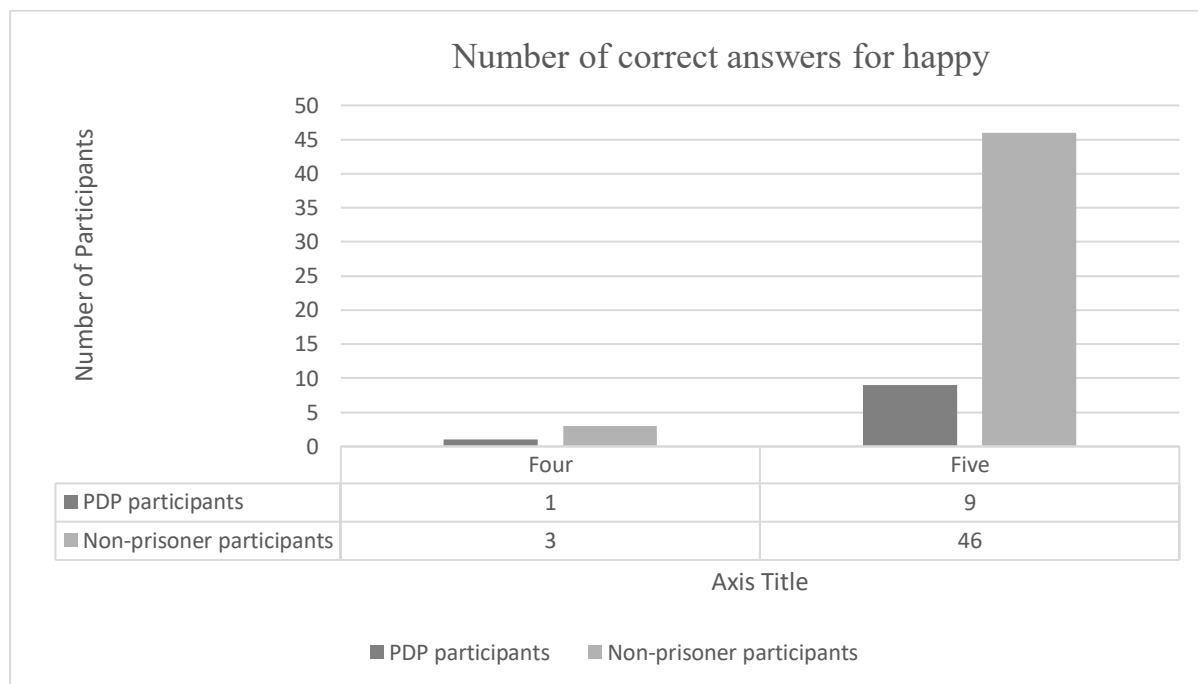
### ***Data Analysis***

Once data collection was complete, the non-prisoner participant responses to the dog emotions test were coded using *Qualtrics*. The prisoner participants' responses were coded using a Microsoft Excel spreadsheet (appendix J). Participant responses were coded using grounded theoretical approach, which involved searching the data for recurring words and themes (Patton, 2002, p. 453). A score was then calculated based on the number of correct answers for each emotion. The test provided a score out of five for each of the emotions happy, sad and fear and a score out of three for the emotion of anger. An experienced researcher reviewed the interview responses and content analysis and found consistency among the themes identified.

## FINDINGS

### *Happy*

Nine of the ten prisoner participants correctly identified the emotion of happiness in all five photographs depicting a happy dog, while one correctly identified four of the five photographs. For non-prisoner participants 46 of the 49 correctly identified happiness in all five photographs, while the remaining three correctly identified happiness in four of the five photographs.



*Figure 6.8 Number of correct responses for photographs of happy*

### *Sad*

Photographs one, four, eight, nine, and 18 depicted sadness in two dogs. None of the prisoner participants correctly identified sadness in all five photographs. Three identified sadness in three photographs, three identified sadness in two photographs, two identified sadness in one photograph and two failed to identify sadness correctly in any photograph. Of the non-prisoner participants, three correctly identified all five photographs, six identified four of the five, while another six identified three, 11 identified two photographs, 14 identified one, and nine failed to identify sadness in any photograph.

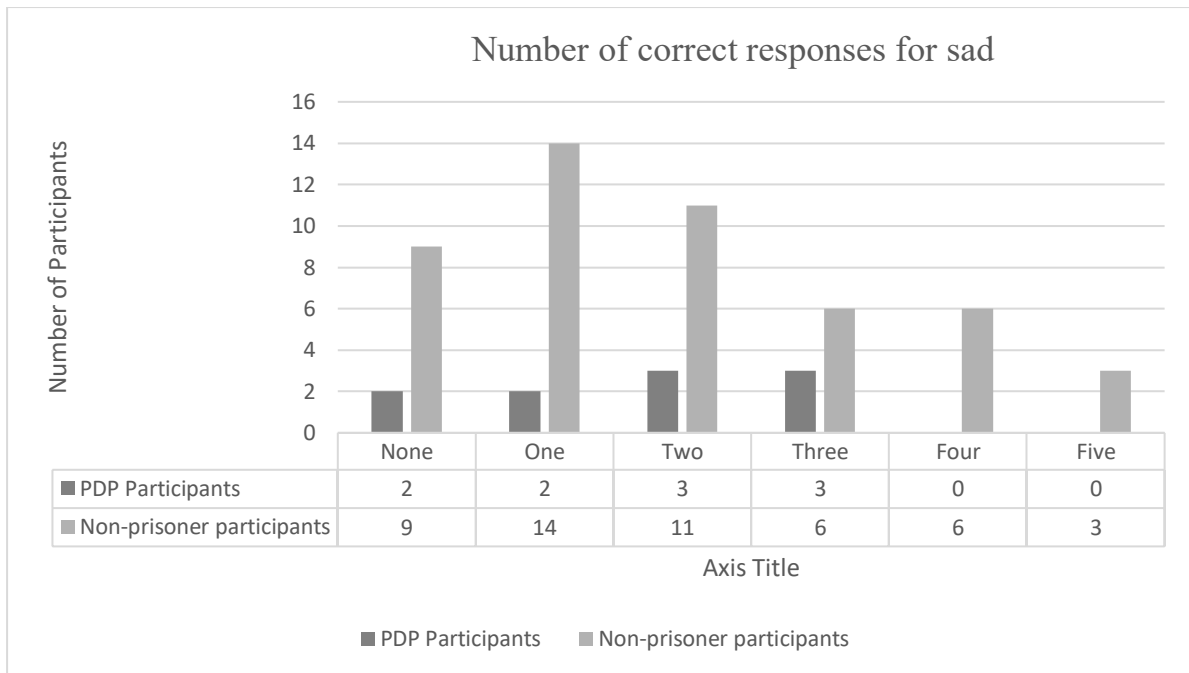


Figure 6.9 Number of correct responses for photographs of sadness

### Fear

Photographs 6, 11, 12, 16 and 17 represented a fearful dog. Two PDP participants identified fear correctly in all five photographs, two identified fear in four of the five photographs, two identified fear in three photographs, one identified two photographs correctly, two identified one of five, and one failed to identify any photograph correctly.

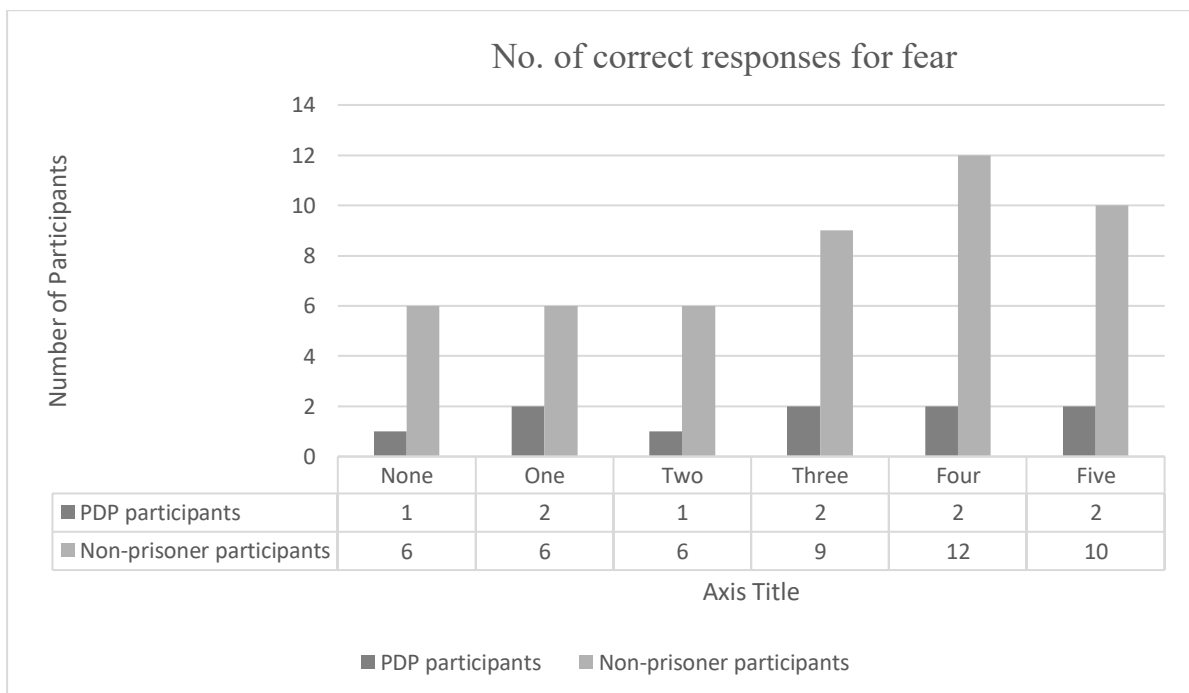


Figure 6.10 Number of correct responses for photographs of fear

## Anger

Three photographs, numbers three, five, and 15 depicted anger in one dog. Four prisoner participants correctly identified anger in all three photographs, while the remaining six identified anger in two of the three photographs. Of the non-prisoner dog owners, six identified anger correctly in all photographs depicting an angry dog, ten identified two of three photographs correctly, and 14 identified one of three photographs correctly, while 19 failed to identify anger in any of the photographs depicting anger.

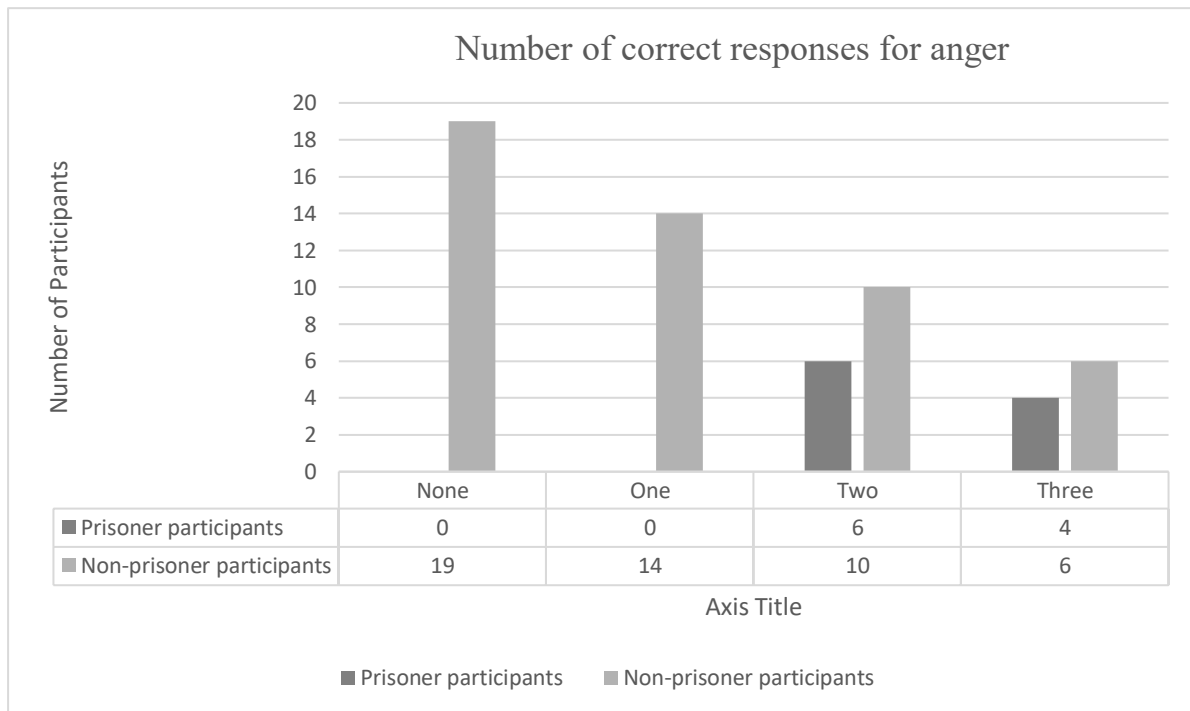


Figure 6.11 Number of correct responses for anger

## Improving Emotional Intelligence

While no PDP participants were asked about the ability for dogs to improve human emotion recognition, two inmates observed that reading a dog's behavioural cues is similar to recognising human emotions, while two prison staff members observing the interview concurred. One inmate stated,

*There's a certain glint in people's eyes and again the body language, the body language says everything. You'll have people talking to you and saying one thing with their mouth but their eyes or their body language is telling you something completely different.....if you look at the body language of a dog, humans aren't that far, they're not that much different because we show interest, like she [the dog] is showing us*

*classic signs of being bored, you know 'pay attention to me' and you know humans do the same thing.*

While another inmate described a situation in which he needed to read his dog's body language to identify what was wrong and how to help her and likened it to being a parent:

*...last week [the dog] jumped off the sofa when she had an ant on her and cause it was obvious that there was something annoying her and making her panic. I went and investigated and when she realised what I was doing and got the ant off her she was quite happy with that so I recognised there was something wrong. It's no different to a kid, if the kids not happy it goes and hides and these fellas are no different but that they can't tell you so you've got to read their body language to be able to pick those things up.*

## DISCUSSION

Analysis of the data supported the hypothesis for the emotions of happy, sad and fear but not for the emotion anger. The findings indicate support for the results of prior PDP research, which found anecdotal evidence to suggest that PDPs improve prisoner's emotional intelligence (Burger *et al.*, 2011; Cooke & Farrington, 2014; Stetina, Kuchta, *et al.*, 2009). While the data suggest that prisoners identify the emotions of happiness, sadness and fear at a similar rate to that of the general population, prior studies have mixed findings. Some studies support the notion that happiness is correctly identified universally, while other studies have also found deficits in prisoner's ability to recognise sadness, fear and anger (Bloom & Friedman, 2013; Hoaken *et al.*, 2007; Marsh & Blair, 2008; Robinson *et al.*, 2012; Wan *et al.*, 2012). Since it appears that PDP participants and non-prisoner participants identified happiness, sadness, and fear at a similar rate, it is possible that PDPs enhance prisoners' ability to recognise the emotional expressions of sadness and fear. Despite this however, the data also indicate that the negative emotions of sadness and fear are more difficult to identify than positive emotional expressions. This finding is supported in a number of studies, including studies examining a prisoner's EI, which found that positive emotional expressions are more easily identified than negative expressions (Bloom & Friedman, 2013; Marsh & Blair, 2008; Robinson *et al.*, 2012; Wan *et al.*, 2012). It is suggested that this is due to the fact that the brain detects happy and neutral expressions of emotion much faster and more accurately than negative expressions (Alves *et al.*, 2009; Kirouac & Dore, 1983; Recio *et al.*, 2014). However,



while the data collected here partially supports these conclusions, it differs in that it suggests that prisoners are better able to identify the emotion of anger than non-prisoner participants. This is particularly prudent given that the photographs depicting anger in dogs did not display the typical signs of aggression such as bared teeth and raised hackles. While there is no support for this finding in the literature, research has failed to examine the emotional recognition abilities of general population prisoners. Rather, research has focused on violent offenders, sex offenders, and psychopaths. As such, it is possible that imprisonment heightens prisoners' ability to identify anger in others due to the hostile nature of the environment and the need to identify angry individuals in order to avoid confrontations, institutional infractions, and additional prison time.

Unexpected comments from PDP participants in this study suggest that it is possible for PDPs to not only assist prisoners to improve emotion recognition in dogs, but also enhance their perception of emotion in humans. This finding is supported in other studies, which have found that humans process facial affect in dogs in a similar way to that in which they process facial affect in humans (Schirmer *et al.*, 2013). Darwin (1872/1998) was the first to hypothesise an evolutionary continuity in facial expressions in his seminal work, *The Expression of Emotions in Man and Animals* (1872), Darwin famously concluded that human facial affects are analogous with the emotional expressions of non-human primates and other mammals such as canids (pp. 131, 144). While a number of studies have proved Darwin's theory in relation to non-human primates, very few studies have tested the theory in canids. Initial attempts focused on the ability of humans to classify canine emotions from dog vocalisations and found that naive study participants could classify dog barks according to situation labels better than expected by chance (Pongrácz *et al.*, 2005). Recently, the first attempts to examine the human ability to identify emotion in canid facial expressions support Darwin's notion and suggest that an individual's ability to recognise emotion in dogs can predict their ability to read emotion in humans (Bloom & Friedman, 2013; Konok *et al.*, 2015 Schirmer *et al.*, 2013). As a result of these findings, it is possible that PDPs cannot only improve a prisoner's ability to read emotion in canines, but could also enhance a prisoner's ability to recognise emotion in humans.

### ***Limitations of Research***

While this research adds to the literature by presenting preliminary data that suggests that PDPs can enhance prisoner's ability to identify sadness and fear, study limitations may have impacted these results. Firstly, the access limitations and inability to conduct a scientifically sound study limited this research. It was necessary to develop a research design that was able to be applied

to the prison population and be accepted by the ethics committees of both the UNE and QCS. Furthermore, the bias inherent in using a participant group recruited from social media and the different methods of administering the survey between the control and treatment group also may have influenced the results. Another limitation of this study may have been the fact that the emotions of happiness, sadness, and fear were depicted in five photographs while anger was only depicted in three. Furthermore, none of the anger photographs showed the classic signs of aggression (i.e., hackles raised, bared teeth) which may have impacted the ability of the control group to identify aggression. However, despite this, the prisoners' ability to identify anger in photographs with more subtle signs of aggression, may add significance to the finding. A further limitation was the number of dogs depicting emotion of the photographs. For example, the emotion of fear was only captured in one dog and as a result, the single morphology may have confounded the results. Lastly, the prisoner participants recruited for the study may not be generalisable among the general prison population. Inmates involved in PDPs are required to have positive disciplinary records and are subject to rigorous screening prior to participation. Due to ethics restrictions, the research was unable to include reasons for incarceration and as such, it is difficult to determine whether PDP participants are representative of the prison population.

### ***Suggestions for Future Research***

Additional quantitative research is urgently needed to support anecdotal reports that PDPs enhance a prisoner's EI. Due to the inability to conduct a scientifically sound study as part of this dissertation, further research should conduct a pre-post-test study to identify whether PDP participation can enhance emotion recognition. Future research should also consider conducting a comparison between PDP participants and non-participant inmates, or inmates receiving alternative rehabilitative treatment to explore whether PDPs benefit inmates in a similar or different way to other prison programs. It would also be useful to include a small group of dog-experts to compare their responses with both the treatment and control samples. Researchers should also consider using past canine experience and/or ownership as a variable in future PDP studies.

### **CONCLUSION**

Despite the inability of this research to conduct a scientifically sound analysis, this chapter provides a unique contribution to the topic by exploring the possibility that PDPs could enhance prisoners' EI. The topic of EI and criminality is significantly understudied and as such, the

data collected in this study serves as a foundation for future work on the topic. Given that the presence or absence of social bonds are a reliable predictor of desistance (see chapter 3), it is worth further exploring the possibility that PDPs could enhance prisoners ability to perceive emotion in others, which could potentially lead to an increase in a prisoner's socialability and stronger relationships pre and post-release.

# 7. Conclusions and Implications

---

## INTRODUCTION

The present study aimed to provide a demographic profile of PDPs in Australia and examine the circumstances in which inmates were most likely to benefit from PDPs and how these programs can reduce recidivism. In its entirety, this research presents the only known demographic data of PDPs currently operating in Australia and is one of the few studies that incorporate both quantitative and qualitative research designs. Five research questions guided this research:

1. What is the current nature of prison-based dog programs in Australia?
2. How can PDPs assist in meeting a prisoner's immediate and future needs and encourage desistance?
3. Can humans judge the emotional state of dogs using the behavioural cues captured in photographs?
4. Do inmates, participating in PDPs, judge the emotional states of dogs, in a similar way to that of non-prisoner dog owners?
5. In what ways can PDPs be improved: for inmates, for staff, and for the dogs?

In this final chapter, a summary of the key findings of the three studies conducted as part of this thesis is presented, and the implications of these findings for future research are discussed. Also provided, are recommendations in accordance with good practice principles along with a program logic model developed as a result of this research, which aims to positively influence future development, implementation, and evaluation of PDPs.

## SUMMARY OF KEY FINDINGS

Study one presented the first demographic data on PDPs in Australia. The findings revealed that PDPs are administered in all six Australian states, were most commonly of a community service design, were established after 2010, and were conducted in conjunction with a not-for-profit animal welfare or training organisation. Survey respondents overwhelmingly regarded PDPs as a positive program, with most participants reporting that PDPs are an altruistic activity that facilitates personal development. The most commonly identified negative aspects was not an actual characteristic of the program but rather the lack of resources that the program needed

to excel. However, this study was limited by a lack of participation by some corrective services across Australia. Not only were corrections staff prohibited from participating in this research, but also representatives from animal welfare, and training organisations were also not permitted to discuss their experience. Furthermore, the process to gain ethical approval from corrective services was lengthy and initial attempts to contact corrective services were unsuccessful. Applications in most states were overlooked, with corrective services in Victoria, WA, SA, and Tasmania failing to respond to the researcher's requests. While Corrective Services in NSW were interested in this research, multiple requests for additional information, and the time it took to review each request, resulted in a lengthy process that was impractical to pursue due to time restraints. This resulted in a lack of data from some areas and has meant that this study has not provided a comprehensive overview of PDPs in Australia. Nevertheless, it provides the only known demographic data of PDPs currently operating in Australia.

In study two, interviews were conducted with prisoners and staff to examine how PDPs can assist in meeting a prisoner's immediate and future needs and encourage desistance. Study participants identified several benefits consistent with current research including positive environmental changes, improved relationships between inmates and corrections staff and the opportunity to give back to society. The most common negative aspects of the programs identified were personality clashes between inmates within the program and inmate participants' inability to socialise the dogs outside of the prison. This study also explored the effect of PDPs on an inmate's ability to read emotion in dogs by comparing the ability of inmates involved in PDPs in Queensland with current and previous dog owners. Results indicated that PDPs have the potential to improve a prisoner's emotional intelligence by teaching PDP participants to read emotion in dogs. This study was limited by its cross-sectional nature. The data were confined to PDPs within correctional centres in Queensland and consequently the findings cannot be generalised to other areas. It would be useful to replicate this study in other Australian states in order to retest and verify the results. Another limitation of this study was the small sample size due to the limited number of prisoners involved in PDPs and the lack of access to prisons in other Australian states. Additionally, like many PDP studies, prisoner selection for study participation was determined by correctional staff, which may have increased the potential for bias. Despite this however, the findings highlighted some important areas for future research.

## IMPLICATIONS OF FINDINGS

The findings of this study, and others, provide evidence to suggest that PDPs are an altruistic activity that encourage desistance from further offending post-release by providing inmates with the opportunity to develop social, emotional, and vocational skills and give back to the community.

### ***Dogs as Social Facilitators and Moderators***

As research has shown, prison is a hostile environment in which conventional relationships are scarce (Woodward, 2003). PDPs can positively impact the prison environment by changing the context of inmate-inmate, inmate-staff relationships, and inmates' familial relationships outside of prison and providing a disincentive for negative behaviour (Britton & Button, 2005, 2007; Furst, 2007a; Mulcahy, 2011).

The inmate-staff relationship is typically characterised by an 'us and them' mentality (Britton & Button, 2005; Haney *et al.*, 1973; Marston & Bennett, 2003). PDPs can improve the relationship between inmate and staff by providing the opportunity for inmates and staff to challenge and change negative connotations each associate with the other (Britton & Button, 2005, 2007; Fournier *et al.*, 2007; Furst, 2006). As Britton and Button (2007, p. 14) assert:

*...the effect of the dogs' presence works both ways, softening an officer's otherwise authoritarian stance and at the same time altering inmates' perceptions of him.*

Additionally, positive changes to inmate-inmate, inmate-staff relationships, and familial relationships outside of prison can assuage the deprivation of social support, which can in turn increase the likelihood of desistance as prisoners maintain a sense of identity and preserve relationships that would otherwise be lost. These positive changes not only have a positive impact on inmates, but also on prison staff, by potentially reducing their workload, and improving their emotional and psychological states by removing some of the adverse effects prison culture can have on an individual. This can subsequently benefit corrections by decreasing the likelihood of recidivism and reimprisonment and reducing prison administration costs. As a result of these findings, additional PDPs need to be developed and implemented to encourage personal transformation and desistance and ultimately reduce recidivism rates and the prison population.

## ***Dogs as Educators***

The findings from this study, as well as others (Currie, 2008; Furst, 2006; Strimple, 2003), suggest that PDPs can provide the opportunity for inmates to develop vocational skills that may assist ex-prisoners to gain employment post-release. As previously noted, during incarceration, prisoners can lose vocational skills, which can negatively impact on their ability to find and maintain work after release from prison. While it is clear that PDPs can improve a prisoner's employability, little is known about the experience of ex-prisoners, and therefore, there is no evidence to prove that PDPs do lead to employment post-release. Further research is needed to explore the long-term benefits of PDP participation, and gather quantitative data on the number of PDP participants obtaining animal-related employment post-release. In addition, research needs to explore the impact of formal vocational qualifications gained through participation in a PDP, and letters of recommendation, have on the likelihood of employers hiring ex-prisoners. As was found in this study, very few PDPs provide vocational training and links to employment post-release. Therefore, while PDPs may provide the opportunity to develop vocational skills, a prisoner's ability to gain employment may not improve if employers remain unlikely to hire unqualified individuals with no recommendations. Future PDPs should consider providing inmates with the opportunity to obtain formal qualifications in animal studies and a letter of recommendation outlining PDP participant's skills, attitudes, and performance measures.

In addition, preliminary data presented in chapter five, as well as anecdotal reports from other studies, suggest that dogs can teach prisoners emotional intelligence. While little is known about the emotional intelligence (EI) of prisoners, there is some evidence to suggest that offenders have low levels of EI compared to the general population, indicating that low EI may be linked to criminal behaviour (Bergeron & Valliant, 2001; Fisher *et al.*, 1999; García-Sancho *et al.*, 2014; Hayes & O'Reilly, 2013; Henley & Long, 1999; Hoaken *et al.*, 2007; Kirsch & Becker, 2007; Malterer *et al.*, 2008; Martin, 1985; McMurrin & McGuire, 2005; Owen & Fox, 2011; Packer *et al.*, 2009; Qualter *et al.*, 2010; Ross & Fontao, 2007; Strüber *et al.*, 2008; Visser *et al.*, 2010). While the data presented in this dissertation is preliminary, and additional research is needed to support such claims, if EI is a predictor of criminality, improving prisoners EI through prison programs may contribute to desistance. As research has demonstrated, humans process canine facial affect and behavioural cues in the same way they process human facial affect and behavioural cues (McConnell, 2009; Schirmer *et al.*, 2013). Therefore, if inmates are taught to read the emotional behavioural cues of dogs through PDP

participation, this has the potential to positively impact on how inmates interpret and respond to their own emotions and the emotions of others. Through changing the interaction styles of prisoners, PDPs have the potential to reduce confrontations with inmates, staff, family and friends both in and outside of jail and reduce the number of violent incidents and assaults that can occur due to inmates inability to control their emotions. If PDPs can improve prisoner's EI and subsequently reduce violent and aggressive behaviours, PDPs have the potential to contribute to desistance and reduce recidivism rates and the associated prison administration costs.

### ***PDPs as Recompense***

One of the main findings of the present research was the opportunity PDPs provided for inmates to make a positive contribution to society and recompense for past crimes. Toch and Adams (2002, p. 276) argue that prisons have “a great deal to gain” and “little to lose” by providing opportunities for inmates to engage in altruistic activities. Participating in altruistic activities can contribute to the desistance process as they can provide “a sense of purpose and meaning” and allow inmates “to redeem themselves from their past mistakes” (Maruna, LeBel, *et al.*, 2004, p. 133). Offenders can then begin a process of transformation in which they reject their “past offender identity” and adopt a new identity, sense of self and a new set of goals (Maruna, 2001; Toch & Adams, 2002, p. 276).

Participation in altruistic activities, such as PDPs can also assist offenders reintegrate into society as they can provide a human face to corrections and can positively impact on the stigmatisation of prisoners. As much research demonstrates, prison can result in a loss of identity that only gets weaker post-release as ex-prisoners begin to internalise the ‘criminal’ label placed upon them by society. This can result in exclusion from conventional opportunities, such as employment and education, and negatively interfere with an offender's self-concept and personal relationships (Becker, 2008, p. 34; Braithwaite, 1989; LeBel, 2012; Lemert, 1967, pp. 44, 50; Mead, 1918, p. 589; Petersilia, 2003; Travis, 2005). Through changing the interaction between inmates and society, PDPs can contribute to a prisoner's identity transformation and increase their chances of desisting from crime.

### **IMPLICATIONS FOR FUTURE POLICY AND PROGRAMS**

Overall, it was evident from the research that PDPs in Australia are widely divergent, do not meet the principles of effective treatment programs, and fail to conduct regular program evaluations. This may be partly because PDPs in Australia are in their relative infancy and as



such, there is little known about such programs. It may also be due to punitive populism and the subsequent termination of many prison rehabilitation programs. As a result, a program logic model was developed from the findings of this research to assist in the future implementation, development, and evaluation of PDPs. It serves as an example of how program logic models can be used to assist in program design by defining the program's intended purpose, inputs, outputs, assumed outcomes and desired overall impact.

Previous evaluations of prison programs have identified a number of factors associated with successful interventions with prisoners, which have broadly been defined as 'good practice' or the 'what works' principles. These principles suggest that interventions are more likely to be successful if they are based on a sound theoretical model of criminality, if inmates' risk of reoffending is assessed based on criminal history and criminogenic needs and program participants are allocated in accordance with this information (McGuire, 2000). Furthermore, programs that incorporate a cognitive-behavioural treatment approach, address multiple criminogenic needs of inmates, maximise inmate responsiveness to treatment, have a structure characterised by clear objectives and willing and responsive staff participation, employ adequately trained staff and conduct regular program evaluations to ensure the program meets its objectives are more likely to result in successful outcomes (McGuire, 2000).

### Theoretical Soundness

While it appears that many PDPs adhere to theoretically sound models of criminality, and aim to address the criminogenic needs of crime and offending behaviour (i.e., Furst 2007a; 2007b), some programs view the needs of prisoners and desistance as secondary to the needs of the dogs in the programs or individuals with a disability (i.e., Drew 2013). As is evident in chapter two, studies on PDPs provide proficient data that demonstrate how PDPs can meet the needs of offenders, reduce the frequency and severity of offending and encourage desistance. Despite this however, some programs are solely based on the theoretical underpinnings of the human-animal bond. While it is important to appreciate these theories, due to the nature of the population, it is preferable to shape PDPs according to the needs of the prisoner population to enhance expected outcomes. Future programs, therefore, need to ensure that all staff involved in PDPs are familiar, and are accepting of the reasons surrounding program implementation. If staff doubt the ability for PDPs to rehabilitate prisoners, the effectiveness of the program will suffer.

## Risk Assessment

Risk assessment aims to ensure that those who are at higher risk of reoffending are allocated to programs with higher levels of treatment delivery, while those at a lower risk should be allocated to less intense interventions. While most PDPs conduct pre-screening procedures prior to participation, they fail to take into account the risk principle, which aims to match the level of service to a prisoner's risk of reoffending. Prisoners at a higher risk of reoffending should be assigned to higher levels of service while prisoners at a lower risk are best assigned to minimal service (Andrews & Bonta, 2014, p. 21). As part of these screening measures, an inmate's record of institutional behaviour is reviewed. To be considered for participation, inmates must have a clean behavioural record for a specified period, generally between six to twelve months. Additionally, the majority of programs also prevent inmates convicted of crimes against animals from program participation. As other research has suggested, pre-screening procedures may result in a selection of inmates who are more likely to succeed post-release irrespective of treatment interventions (Cooke & Farrington, 2015; Moneymaker & Strimple, 1991; Turner, 2007). As a result of this, future research needs to be conducted into the types of offenders that are most likely to benefit from program participation. While it is necessary to place restrictions on PDPs to prevent harm to the dogs, there are a number of ways in which PDPs could be expanded to include additional participants. For example, many programs require inmates to be on a long-term sentence (e.g., two years or more). Interviews conducted as part of the second study revealed that this is primarily due to difficulties associated with introducing and training new inmate participants. In other words, it is simply easier on prison administration. While this may be a positive short-term impact it is not sustainable long-term. PDPs on the other hand, have the ability to reduce long-term prison administration costs by reducing the number of returning prisoners, improving the workplace environment and the physical and psychological wellbeing of correctional staff.

Furthermore, it was evident in the studies conducted as part of this research, that there was very little organisational supervision of PDPs. While prison staff monitor the program, many have limited understanding of the program and are simply observers. Moreover, staff volunteer to supervise PDPs and as such monitoring the program is considered an additional responsibility. If prisons were to delegate corrections staff to monitor and supervise PDPs, screening procedures could be more lenient and include inmates who may otherwise be ineligible for program participation. For example, in some programs, any inmate convicted of a violent offence is automatically ineligible to participate in the program. If the program was continually

supervised, inmates convicted of such crimes could be placed in the program on a trial period as long as they met other selection criteria, such as a love of dogs and minimal behavioural infractions. Additionally, most PDPs require inmates to be free of behavioural infractions for a period of between six to twelve months prior to program participation and during participation in the program. While this is necessary and assists in improving the prison environment and inmate-inmate and inmate-staff relationships, each case should be reviewed on its merits. Britton and Button (2005) found that inmates participating in PDPs (or wishing to participate) were sabotaged by other inmates and unsupportive corrections staff who tried to incite behavioural infractions against PDP participants and get them expelled from the program. Program co-ordinators and supervisors should consider this and take each case on its merits rather than applying a one-size-fits-all approach.

### Criminogenic Needs

Criminogenic needs are those that increase the likelihood of criminal behaviour. Andrews *et al.* (1990, p. 375) asserts that criminogenic factors most likely to be addressed by program intervention are:

*...changing antisocial attitudes, feelings and peer association; promoting familial affection in combination with enhanced monitoring and supervision; promoting identification with anti-criminal role models; increasing self-control and self-management skills; replacing the skills of lying, stealing and aggression with more pro-social skills; reducing chemical dependencies; and shifting the rewards and costs of criminal and non-criminal activities.*

Studies have shown that PDPs provide psychological benefits to inmate participants, such as a sense of responsibility, self-esteem, patience, trust and decreased levels of depression, stress and anxiety (see Britton & Button, 2005; Cooke & Farrington, 2014; Currie, 2008; Furst, 2006, 2007a; Mercer *et al.*, 2015; Merriam-Arduini, 2000; Mulcahy, 2011; Turner, 2007; Walsh & Mertin, 1994). Psychosocial benefits are also often reported and include the ability for PDPs to change negative peer associations and encourage prosocial bonds. The psychological and social benefits inmates experience as a result of participation in PDPs, address their criminogenic needs as they allow prisoners to begin a process of identify transformation, which in turn discourages negative peer associations, antisocial attitudes and encourages prosocial bonds with others (Maruna, 2001). PDPs also address issues surrounding unemployment and a lack of education as they provide the opportunity for prisoner to develop and practice skills

that assist prisoners to gain and maintain employment (Britton & Button, 2007; Currie, 2008; Turner, 2007).

### Responsivity

As research has found, PDPs have the potential to address multiple criminogenic risk factors and reduce the risk of reoffending. However, due to the nature of the sample population it is difficult to adjust PDPs to suit the needs of each prisoner. There are, however a number of improvements identified as part of this study that would enhance a prisoner's responsivity to treatment. One possible improvement would be to correlate PDP models with a prisoner's sentence lengths. Many prisoners with short sentences (i.e., six months to two years) are denied the opportunity to participate in PDPs (and many other prison rehabilitation programs) because programs favour inmates with longer sentences over those with minimal sentences. For service animal socialisation models, due to the time it takes to train one dog (i.e., 12 to 18 months) and the amount of knowledge and commitment needed, inmates with longer prison sentences are of more benefit to these programs. However, community service programs rotate dogs on a regular basis, with some PDPs running for as little as six weeks. Therefore, inmates on short sentences could participate in these types of programs with minimal interruption.

### Structure

The findings of this study indicate that the structure of PDPs can be improved through the development of clear objectives and willing and responsive staff participation. As noted previously, the motivation for staff wanting to be involved in facilitating PDPs varies between and within PDPs. While the rehabilitation of the offender is the primary motivation for corrections, the primary motivation for staff of animal welfare organisations is the care and wellbeing of the dogs, while staff of animal training organisations are motivated by the ability to assist individuals with a disability and provide them with an assistance dog. As McGuire (2000) asserts, the most effective interventions are those that have clear program objectives. Therefore, inconsistencies regarding program objectives among staff and between staff and inmates may negatively impact on the success of the program. Therefore, prior to program implementation, it is important that program directors identify the program objectives and ensure that all volunteers are willing to work toward those goals. Future programs should also conduct regular meetings with corrections staff before and during program implementation to ensure that program objectives are understood and adhered to, and potential misconceptions of the program are addressed.

One of the main complications associated with PDP structure is the reluctance of some prison staff to be involved in the program. As studies have shown, some prison staff can hinder inmates' success in the program as they view prison as a punishment and dislike the idea of prisoners enjoying the experience of raising and training a dog (Britton & Button, 2005, 2007). Future research is needed to examine the circumstances surrounding why some PDPs hinder relationships, while others do not. A number of variables should be examined as part of this research, as it may not be the program per se that hinders relationships; rather, it could be a result of environmental factors, personalities of staff members or staff perceptions of rehabilitation may impact program outcomes. Research should compare PDPs in minimum, medium, and high security prisons to examine how physical structure and various prison policies and procedures can impact the relationship between inmates and staff. Additionally, future research needs to compare and contrast PDPs with other prison rehabilitative programs to examine similarities and differences in program outcomes.

### Methods

Cognitive-behavioural treatment methods are a vital component within prison programs for addressing the criminogenic needs of offenders (McGuire, 2000). Studies have shown that offenders attending cognitive behavioural programs are less likely to reoffend than offenders who do not participate (Illescas *et al.*, 2001; Pearson *et al.*, 2002; Wilson *et al.*, 2005). Cognitive behavioural therapies encompass treatment that:

*...attempt to change behaviour by altering thoughts, interpretations, assumptions, and strategies of responding (Kazdin, 1978, p. 337).*

Developed by Aaron T. Beck in the 1970s, cognitive-behavioural therapy is a collaborative intervention that is structured, time-limited, and goal-oriented with the purpose of developing skills (Beck Institute for Cognitive Behavior Therapy, 2016). The aim is to change existing behaviours associated with certain thoughts and feelings. AAT is considered a form of cognitive-behavioural therapy (CBT) as it is a goal-directed intervention in which an animal and qualified health/human service professional assists an individual to improve their physical, social, emotional, and/or cognitive functioning. While it could be assumed that as PDPs are based on AAT, they would naturally incorporate aspects of cognitive behavioural therapies, this study revealed that many PDPs do not operate with a trained health/human service professional. Instead, it was found that the majority of programs were facilitated and directed by staff from animal welfare or training organisations or qualified dog trainers. While it is

evident that PDPs already fulfil some CBT goals, future programs should consider employing a health/human service professional to implement formal cognitive-behavioural treatment measures to enhance program success.

### Program Integrity

Program integrity relates to the need for programs to employ adequately trained staff and conduct regular program evaluations to ensure the program meets its objectives. While representatives from animal welfare and training organisations are trained in animal-care, prison staff do not appear to require any additional training. Data from studies in this research indicated that prison staff are selected based on their willingness to volunteer in the program and existing knowledge of dogs. While many programs have no criteria for staff prior to participation, the love of dogs is often a primary motivation for participation and as such, staff will have some understanding of dog care and training. Another aspect of program integrity is regular program evaluation. There is little information regarding in-house evaluations conducted, particularly in Australia. There has only been one known in-house evaluation conducted of the CASEC program in Western Australia (EECS, 2012). The remaining known program evaluations include one Master's thesis (Mulcahy, 2011) and one published evaluation conducted between 1988 and 1989 (Walsh & Mertin, 1994). As such, future programs need to conduct regular evaluations informed by program logic to ensure program success (see Table 7.1 and Figure 7.1).

### ***Program Logic Model for PDPs***

Drawing on the findings of this research, a program logic model was developed to assist in the future development; implementation and evaluation of PDPs. Program Logic Models (PLM) are illustrative representations of program theories that show the causal relationship between a program's intended purpose, inputs, processes, outputs, and the program outcomes. A logic model provides a chain of reasoning that systematically explains how program activities lead to desired outcomes. The PLM can assist in program evaluations and lead to more effective programs, greater learning among stakeholders, and clearer knowledge about what works and why (Taylor-Powell & Henert, 2008; Weiss, 1997; WK Kellogg Foundation (WKKF), 2004). It can also assist programs to stay on target and recognise if, and when, they are veering off course. There are five basic components of a logic model: resources, activities, outputs, outcomes and impact. Resources also referred to as inputs, refer to any resources or materials used by the program to provide its activities. Types of inputs include the human, financial, organisational and community resources a program has available to direct toward the work.

Activities are the endeavours planned as part of the program. Outputs, or processes, are the direct products of the program's activities that should be quantified during and after program participation. Outcomes are the qualitative measurements of program participation and include short, medium, and long-term benefits of program participation. Short-term outcomes refer to changes in knowledge, skills, or awareness, intermediate outcomes describe the behavioural changes that are as a result of short-term outcomes, and long-term outcomes are the global changes to society (WKKF, 2004). There are three approaches to logic models: theory approach models, outcomes approach models and activities approach models (WKKF, 2004, pp. 9-10). The PLM model used in this research was the outcome approach logic model. This model was chosen, as it is a linear model that emphasises the causal linkages between program components. In Figure 8.1 the arrows show which sets of PDP activities are believed to contribute to what outcomes. These statements serve as logical assertions about the perceived relationship among program operations and desired results and are the hallmark of the program logic model process.

### Resources

Resources refer to the materials invested into the program to provide the activities. This research identified a number of resources necessary for the successful implementation of PDPs. The three most important resources identified included prisoner participants, dogs and correctional staff, without which there would be no program. Additionally, other resources necessary for program implementation included dog equipment (e.g., collars, leads, toys, treats, and crates) and veterinary care (e.g., regular vaccinations, desexing, worming, and flea treatments). Some programs also reported purpose built kennels constructed on the prison property. The most successful programs identified in this study were those that operated at no financial cost to corrective services. As a result, the primary sources of funding identified were in the form of donations from animal welfare or training organisations associated with the program. Little monetary resources were received from corrections departments, however the corrections facility contributed to the resources by providing the labour and space requirements for the program. Inmates care and train the dog at no cost, and often as an additional responsibility to prison work commitments. Staff duties as part of PDPs vary from program to program with some staff only required to monitor the inmates and the dogs, while other programs require staff to participate in puppy socialisation by staff taking a dog home either at nights and/or on the weekends. In addition to staff, representatives from animal welfare and training organisations volunteer their time, knowledge, and expertise to help care for and train

the dogs. Again, depending on the type of program, this can range from weekly to every few months. The primary aspect lacking in resources is the adequate training of staff. PDPs are often considered an additional or secondary role that corrections staff volunteer to run in addition to their primary work duties. Many staff volunteer based on a love of dogs and therefore already have the knowledge needed to care for and train the dogs. Despite this however, additional training is needed to ensure consistency among PDPs.

### Activities

Activities refer to what the participants do as part of the program. There were a number of activities that are common among all programs, while some activities were characteristic of only a small number of programs. The most common activity of PDPs was the care of the dogs. This included feeding and grooming the dog as well as basic training. Additional activities characteristic of some PDPs included training in dog care and grooming, advanced obedience dog training, behavioural rehabilitation, assistance dog training, puppy rearing, class instruction, community visits and progress reports.

### Outputs

Outputs are quantifiable measurements of the direct products of program activities. It is important to note that outputs are not determined prior to the intervention. Rather, outputs are designed to identify what activity products should be evaluated during and after the program, such as the number of trained dogs that were successfully rehomed or placed with individuals with a disability. It was evident in the study that most Australian PDPs, and many overseas PDPs, fail to collect information relating to the outputs of the program. As a result, this study provides a list of suggested outputs that could be measured during and post-program to ensure that the program is meeting its objectives.

### Outcomes

Outcomes refer to the program benefits for those involved. They are the qualitative measurements of program participation. The findings of this study revealed that there is a great deal of variability among PDPs in regards to their outcomes. While there are a few common outcomes as a result of the programs, many PDPs vary in their objectives and therefore, vary in their outcomes. There are short-term, intermediate, and long-term outcomes.

Short-term outcomes refer to changes in knowledge, skills, or awareness. There are a number of short-term outcomes that are common to the majority of programs. The most prominent and mutually identified short-term outcomes of PDPs is the facilitation of physical and



psychological benefits to inmate participants. These included changes in inmates' perceptions of themselves and others, self-confidence, self-efficacy and teamwork. PDPs that facilitate some form of educational and vocational training as part of the program results in skill development among prisoners. Vocational skills learnt as part of PDPs include dog care, grooming and training, administrative skills (i.e., record keeping), as well as social skill development. Another common outcome identified by PDP, was the positive change in attitudes towards offenders, as a result of their participation in altruistic work.

Intermediate outcomes describe the behavioural changes that occur as a result of short-term outcomes. Intermediate outcomes were the most common outcomes identified. Outcomes identified included positive changes to the environment as a result of improved relationships among inmates and between inmates and staff. There was also a reduction in the number of institutional infractions, a reduction in risk factors, such as dysfunctional relationships and antisocial values and beliefs, and the facilitation of protective factors that encourage desistance including the development of prosocial relationships, skill development, and work experience. Additionally, positive behavioural changes are also noted in the dogs who were trained in basic (and some advanced) obedience as part of the program.

Long-term outcomes are the global changes to society. The long-term outcomes expected from participation in PDPs are dependent on program objectives. Community service model PDPs aim to rehome abandoned and surrendered dogs. Long-term outcomes of these programs include saving dogs from euthanasia, reducing the financial and administrative impact on shelters, and reducing the likelihood of the dogs being abandoned again through training and socialisation. The primary objective of service-animal socialisation PDPs are to provide an assistance or service dog to individuals with a physical or mental disability. As a result of these objectives, long-term program outcomes include assisting people in need and reducing the cost involved in raising and training service dogs. In addition to either the objectives of community service or service socialisation models, vocational model PDPs provide long-term outcomes relating to future employment, through skill development, job referrals, and certification. Long-term outcomes common to all programs include improvements in prisoner and prison staff safety, enhanced community reintegration, a reduction in frequency and severity of reoffending, desistance from crime and enhanced community safety, as well as savings associated with reduced prison operating costs and community confidence in the prison system. It is important to note however, that while the majority of programs recognise these long-term outcomes, some identify them as primary objectives while others identify them as an additional

benefit. Table 7.1 displays the program logic model developed from data gathered from the studies discussed above and current literature on PDPs.

Table 7.1 Program logic model for PDPs

RESOURCES	ACTIVITIES	OUTPUTS	OUTCOMES		
<ul style="list-style-type: none"> <li>• Dogs</li> <li>• Prisoner participants</li> <li>• Donations</li> <li>• Dog care and training equipment</li> <li>• Association with veterinary clinic</li> <li>• Program facilitator</li> <li>• Certified dog trainer/welfare officer</li> <li>• Trained corrections staff</li> <li>• Designated space in prison separate from general population</li> <li>• Willing inmate participants</li> </ul>	<ul style="list-style-type: none"> <li>• Basic care of dogs</li> <li>• Advanced obedience dog training</li> <li>• Task-specific dog training</li> <li>• Class instruction</li> <li>• Training in dog care and grooming</li> <li>• Community visitation</li> <li>• Rearing pups</li> <li>• Behavioural rehabilitation</li> <li>• Progress reports</li> </ul>	<ul style="list-style-type: none"> <li>• Trained dogs</li> <li>• Task-specific trained dogs</li> <li>• Program completion by prisoners</li> <li>• Certification in dog care and/or grooming</li> <li>• Link or referral to employment post-release</li> <li>• Well socialised and trained dogs with increased likelihood of rehomability</li> </ul>	Short-term	Intermediate	Long-term
			<ul style="list-style-type: none"> <li>• Physical benefits</li> <li>• Psychological benefits</li> <li>• Skill development</li> <li>• Personal development</li> <li>• Positive change to social interaction</li> <li>• Trained dogs</li> </ul>	<ul style="list-style-type: none"> <li>• Work experience</li> <li>• Personal transformation</li> <li>• Positive environmental changes</li> <li>• Enhanced prisoner and staff safety</li> <li>• Increased adoption rates for abandoned and surrendered dogs</li> <li>• Reduction in abandoned and surrendered dogs</li> <li>• Positive attitude changes towards inmates</li> </ul>	<ul style="list-style-type: none"> <li>• Post-release employment</li> <li>• Reduced pressure and costs for animal shelters</li> <li>• Reducing cost of training assistance/service dogs</li> <li>• Enhanced community reintegration</li> <li>• Reduction in frequency and severity of offending</li> <li>• Desistance</li> <li>• Reduced prison administration costs</li> <li>• Enhanced community safety</li> <li>• Community confidence in prison system</li> </ul>

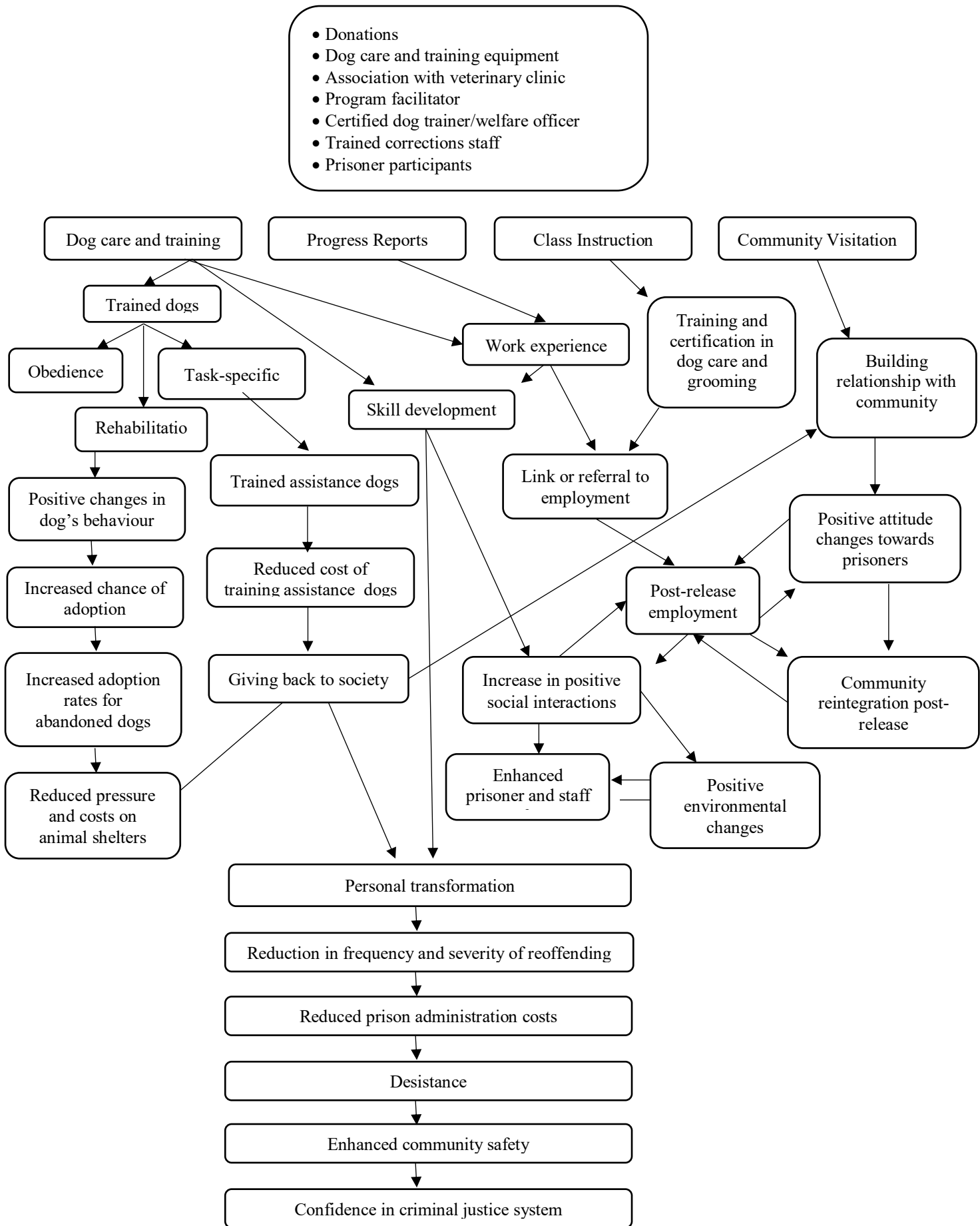


Figure 7.1 Program Logic Diagram

## LIMITATIONS OF RESEARCH

While the studies contained in this thesis have built on existing literature, the findings provide only preliminary support for broad anecdotal reports relating to the benefits of PDPs. The key limitation in this research was the numerous complications that arose while trying to gain access to PDP participants and correctional staff. The process to gain ethical approval from corrective services was lengthy and initial attempts to gain access to prisoners, correctional staff and representatives from animal welfare and training organisations in NSW, Victoria, WA, SA and Tasmania were overlooked or unsuccessful. As a result of this, the time available for data collection was limited and using pre-post-test designs became problematic. As such, in discussing the impact of PDPs, this research has relied on data collected from one-off surveys and interviews and as such while this research discusses the potential for PDPs to impact prisoners post-release, it is unable to determine whether the reported benefits would have a lasting effect. In addition to the lack of co-operation of various states corrective services, restricted PDP numbers contributed to small sample sizes, impacting the results and the development of the PLM. As a result, the findings of this research and the PLM may not be generalisable beyond the scope of this thesis.

## FUTURE RESEARCH

Despite the increase in PDPs in Australia, and around the world, there has been a dearth of research in the field. There is a critical need for empirical investigation of these programs as well as longitudinal research to follow-up with inmates who participated in them and explore the long-term impact of PDPs. One area in need of further research is the socio-emotional impact of PDPs. Future studies should explore the impact of human-dog relationships upon human-human relationships to examine the extent to which dogs provide social companionship, and support to inmates, and whether this reduces the need or desire for human-human relationships. It would also be useful for future studies to examine the impact PDPs have on a prisoners' emotion recognition and whether the ability to identify a dog's behavioural cues is transferable to reading and responding to human emotions.

Future research should also consider examining visitation models of PDPs to examine whether community members coming into the prison could foster the same positive relations that community socialisation fosters. A comparison between visitation models and full-time PDPs could also be conducted to explore whether the length of human-dog interaction influences reported benefits. Furthermore, future program directors should carefully consider which PDP

model would be most suitable for each prison, and which animal welfare or training organisation would be the most appropriate affiliate. Other PDP models could also be considered, including a post-release model where recently released inmates participating in PDPs can continue working with dogs and gain reintegration support. This research could also examine the circumstances that would encourage and discourage desistance.

In addition, the majority of research conducted focuses on the impact of PDPs on prisoners. While there is anecdotal evidence to suggest that there are wider implications for correctional staff, program facilitators, the dogs and the community, additional research is needed to explore further, PDPs impact on these populations. It would be useful for future research to quantitatively examine the impact PDPs have on dog adoption rates, euthanasia, and waiting times for assistance dog placement. Future research also needs to compare PDP participants with non-participant inmates to examine the direct impact of PDPs. Experience with dogs should be considered as a variable in order to examine the circumstances in which inmates will most likely benefit from PDP participation.

Longitudinal research also needs to be conducted to examine the long-term impact of PDPs. Future research should explore the impact PDPs have on post-release employment by comparing programs that provide inmates with a qualification in dog care and grooming and a reference with other programs without a vocational component. Furthermore, research should be conducted on employers' perceptions of hiring ex-prisoners, specifically, whether qualifications in animal care and/or references from corrective services personnel would increase or decrease an inmate's employability.

A thorough examination of 'what works' (Martinson, 1974) needs to be conducted to ensure efficient program delivery and program success. Future research should compare and contrast prison rehabilitation programs, including PDPs, to examine why some programs succeed, while others fail. A cost analysis should also be conducted to examine the efficiency in which PDPs reduce prison administration costs, compared with other programs. Correctional practitioners also need to examine how PDPs can meet 'good practice' principles of effective treatment programs and conduct regular evaluations to assess the quality of these programs and to ensure that the programs are meeting these objectives (McGuire, 2000). The PLM presented in this chapter should itself go through an evaluation as PDPs change and new research is presented. Future programs should also consider recruiting a trained health or human service professional to implement cognitive-behavioural therapy as a supplement to PDPs to enhance program

success. Furthermore, program developers and co-ordinators need to ensure that all staff involved in PDPs support the rehabilitation of prisoners and appreciate the objectives of PDPs. It would be useful to conduct research into the extent to which punitive attitudes impact on PDP outcomes and whether an information session regarding the benefits of PDPs for prisoners and also corrections staff, the dogs and society, would positively impact negative perceptions of rehabilitation programs.

## FINAL CONCLUSION

The increasing prison population has resulted in an overcrowded, under resourced yet very expensive prison system. Punitive ideology still governs the prison system despite evidence to suggest that this type of system institutionalises prisoners causing physical and psychological damage. For this reason, positive changes to the prison system should be of utmost importance. The current prison system is characterised by deprivation, dehumanisation, and danger. A more sophisticated understanding of the human and social costs of imprisonment and an enlightened view of crime and punishment may assist to transform the current penal harm logic into a more compassionate and rehabilitation-focused ideology. A rehabilitative approach to imprisonment would include the implementation of programming and social services that take into consideration prisoner's criminogenic needs and aim to reduce the pains of imprisonment and the long-term consequences that result. It would also include the development and implementation of a richer array of post-release programs. Pre-release programs alone are insufficient as they fail to provide prisoners with the support needed to reintegrate into society and desist from further criminal behaviour. Rates of reoffending provide evidence that the majority of prisoners struggle post-release to adjust to the community to which most eventually return. Ex-prisoners struggle with the lasting effects of prisonisation, and struggle to reintegrate into conventional and traditional settings as a result of the label placed upon them as a result of their criminal past. PDPs are a promising rehabilitative intervention that can provide the opportunity for inmates to engage in an altruistic activity that encourages identity transformation and desistance by providing opportunities for inmates to develop social, emotional, and vocational skills and give back to the community. By challenging and changing an offender's criminal identity, PDPs can encourage desistance from crime, providing a better future for not only ex-inmates, but for abandoned and unwanted dogs, and society as well.

## REFERENCE LIST

- Ainsworth, M. D. S. (1972). Attachment and dependency: A comparison. In J. L. Gewirtz (Ed.), *Attachment and dependency* (pp. 97-137). Washington: Winston.
- Akers, R. L., Krohn, M. D., Lanza-Kaduce, L., & Radosevich, M. (1979). Social learning and deviant behavior: A specific test of a general theory. *American Sociological Review*, 44(4), 636-655.
- Alexander, R. D. (1990). How did humans evolve? Reflections on a uniquely unique species. Retrieved from [https://deepblue.lib.umich.edu/bitstream/handle/2027.42/57178/SpecPub\\_001.pdf?sequence=1&isAllowed=y](https://deepblue.lib.umich.edu/bitstream/handle/2027.42/57178/SpecPub_001.pdf?sequence=1&isAllowed=y)
- Allen, K., Blascovich, J., & Mendes, W. B. (2002). Cardiovascular reactivity and the presence of pets, friends, and spouses: The truth about cats and dogs. *Psychosomatic Medicine*, 64(5), 727-739.
- Alper, L. S. (1993). The child-pet bond. In A. I. Goldberg (Ed.), *The widening scope of self psychology: Progress in self psychology* (Vol. 9, pp. 257-270). Hillsdale, New Jersey: The Analytic Press.
- Alves, N., Aznar-Casanova, J., & Fukusima, S. (2009). Patterns of brain asymmetry in the perception of positive and negative facial expressions. *Laterality: Asymmetries of Body, Brain and Cognition*, 14(3), 256-272.
- Andenaes, J. (2015). The moral or educative influence of criminal law. *Journal of Social Issues*, 7(2), 17-31.
- Andenaes, J. (1972). Does punishment deter crime? In G. Ezorsky (Ed.), *Philosophical perspectives on punishment* (2nd ed., pp. 342-357). Albany, New York: State University of New York Press.
- Anderson, P. E. (2008). *The powerful bond between people and pets: Our boundless connections to companion animals*. Westport, Connecticut: Praeger Publishers.
- Andrews, D., (2006). Enhancing adherence to risk-need-responsivity: Making equality a matter of policy. *Criminology and Public Policy*, 5: 595-602.
- Andrews, D., & Bonta, J. (2014). *The psychology of criminal conduct* (5th ed.). Abingdon, England: Routledge.
- Andrews, D., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice, *Psychology, Public Policy and Law*, 16: 39-55.
- Andrews, D., & Dowden, C. (2007). The risk-need-responsivity model of assessment and human service in prevention and corrections: Crime-prevention jurisprudence. *Canadian Journal of Criminology and Criminal Justice*, 49: 439-464.
- Andrews, D., Zinger, I., Hoge, R., Bonta, J., Gendreau, P., & Cullen, F. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology*, 28(3), 369-404.
- Andrews, L. W. (2010). *Encyclopedia of depression*. Santa Barbara, California: Greenwood.
- Animal Health Alliance. (2016). *Pet ownership in Australia 2016*. Retrieved from [http://animalmedicinesaustralia.org.au/wp-content/uploads/2016/11/AMA\\_Pet-Ownership-in-Australia-2016-Report\\_sml.pdf](http://animalmedicinesaustralia.org.au/wp-content/uploads/2016/11/AMA_Pet-Ownership-in-Australia-2016-Report_sml.pdf)
- Animal Welfare League Queensland. (2017). *Numinbah Correctional Centre and AWLQ pups in prison program makes hard time easy*. Retrieved from <http://www.awlqlld.com.au/blog/numinbah-correctional-centre-awlq-pups-prison-program-makes-hard-time-easy/>



- Anonymous. (2012). *Puppies paw into prison*. Retrieved from <https://www.gattonstar.com.au/news/puppies-paw-into-prison/1304266/>
- Anonymous. (2013). *Prison program reaches milestone: Castlemaine's Mail*.
- Archer, J. (1997). Why do people love their pets? *Evolution and Human Behavior*, 18(4), 237-259.
- Armstrong, S., Christyakova, J., Mackenzie, S., & M, M. (2008). *Circles of support and accountability: Consideration of the feasibility of pilots in Scotland*. Retrieved from Glasgow, Scotland: <http://www.sccjr.ac.uk/documents/circles.pdf>
- Assistance Dogs Australia. (2016a). *About us*. Retrieved from <http://www.assisteddogs.org.au/pages/about-us.html>
- Assistance Dogs Australia. (2016b). *Justice pups*. Retrieved from <http://www.assisteddogs.org.au/pages/justice-pups.html>
- Assistance Dogs Australia. (2016c). *Pups in prison*. Retrieved from <http://www.assisteddogs.org.au/pages/pups-in-prison.html>
- Assistance Dogs International. (2016). *Types of assistance dogs*. Retrieved from <http://www.assisteddogsinternational.org/about-us/types-of-assistance-dogs/>
- Auerbach, C., & Silverstein, L. B. (2003). *Qualitative data: An introduction to coding and analysis*. New York: New York University Press.
- Aufderheide, C. (2016). *The application and effects of service dog training by inmates to self-perception and self-other overlap as a rehabilitative approach to incarceration*. (Master of Science), University of Oregon. Retrieved from [https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/20667/Aufderheide\\_or\\_egon\\_0171N\\_11514.pdf?sequence=1](https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/20667/Aufderheide_or_egon_0171N_11514.pdf?sequence=1)
- Australian Bureau of Statistics (2006). Prisoners in Australia 2006. (Cat. no. 4517.0). Retrieved from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/BA368B46230A4118CA2573AF0014B905?opendocument>
- Australian Bureau of Statistics. (2015, December 11). Prisoners in Australia 2015. (Cat. no. 4517.0). Retrieved from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/2C7D44F9090D7C3ECA258082000F8316?opendocument>
- Australian Bureau of Statistics. (2016a). Australian demographic statistics, Mar 2016. (Cat. no. 3101.0). Retrieved from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/3101.0Main%20Features2Mar%202016?opendocument&tabname=Summary&prodno=3101.0&issue=Mar%202016&num=&view=>
- Australian Bureau of Statistics. (2016b). Prisoners in Australia 2016. (Cat. no. 4517.0). Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4517.0>
- Australian Institute of Health and Welfare. (2015). *The health of Australia's prisoners 2015*. Retrieved from <http://www.aihw.gov.au/publication-detail/?id=60129553527>
- Ayres, C. D., Williams, J. H., Hawkins, J. D., Peterson, P. L., Catalano, R. F., & Abbott, R. D. (1999). Assessing correlates of onset, escalation, deescalation and desistance on delinquent behavior. *Journal of Quantitative Criminology*, 15(3), 277-306.
- BackTrack. (2016). Community solutions to community issues. Retrieved from <http://www.backtrack.org.au/program/#Xqr6JOVHWRqQ46Fq.97>
- Bahr, S. J., Armstrong, A. H., Gibbs, B. G., Harris, P. E., & Fisher, J. K. (2005). The reentry process: How parolees adjust to release from prison. *Fathering*, 3(3), 243-265.

- Baldry, E. (2008). The booming industry: Australian prisons. *NSW: School of Social Science and International Studies*. Retrieved from [http://www.nobars.org.au/downloads/Baldry\\_Debate.pdf](http://www.nobars.org.au/downloads/Baldry_Debate.pdf)
- Baldry, E., McDonnell, D., Maplestone, P., & Peeters, M. (2006). Ex-prisoners, homelessness and the state in Australia. *Australian & New Zealand Journal of Criminology*, 39(1), 20-33.
- Bales, W. D., & Piquero, A. R. (2012). Assessing the impact of imprisonment on recidivism. *Journal of Experimental Criminology*, 8(1), 71-101.
- Bandura, A. (2009). Agency. In D. Carr (Ed.), *Encyclopedia of the life course and human development* (pp. 8-11). Detroit, Michigan: Macmillan Reference USA.
- Banks, C. (2004). *Criminal justice ethics : Theory and practice*. Thousand Oaks, California: Sage.
- Baskin, D. R., & Sommers, I. B. (1998). *Casualties of community disorder: Women's careers in violent crime*. Boulder, Colorado: Westview Press.
- Bean, P. (1981). *Punishment: A philosophical and criminological inquiry*. Oxford, England: Martin Robertson.
- Beccaria, C. (1995). *On crimes and punishments and other writings* (R. Bellamy Ed.). Cambridge, England: Cambridge University Press.
- Beck, A. M., & Katcher, A. H. (1996). *Between pets and people: The importance of animal companionship*. West Lafayette, Indiana: Purdue University Press.
- Beck Institute for Cognitive Behavior Therapy (2016). *What is cognitive behavior therapy?* Retrieved from <https://www.beckinstitute.org/get-informed/cbt-faqs/>
- Becker, H. S. (2008). *Outsiders: Studies in the sociology of deviance*. New York: The Free Press.
- Beerda, B., Schilder, M., van Hooff, J., De Vries, H., & Mol, J. (1998). Behavioural, saliva cortisol and heart rate responses to different types of stimuli in dogs. *Applied Animal Behaviour Science*, 58(3-4), 365-381.
- Beerda, B., Schilder, M., van Hooff, J., de Vries, H., & Mol, J. (1999). Chronic stress in dogs subjected to social and spatial restriction. *Physiology & Behavior*, 66(2), 233-242.
- Belyaev, D., & Trut, L. (2009). Some genetic and endocrine effects of selection for domestication in silver foxes. In M. W. Fox (Ed.), *The wild canids: Their systematics, behavioural ecology, and evolution* (pp. 416-426). Washington: Dogwise Publishing.
- Bentham, J. (1907). *An introduction to the principles of morals and legislation*. Retrieved from <http://www.econlib.org/library/Bentham/bnthPML.html>
- Bergeron, T. K., & Valliant, P. M. (2001). Executive function and personality in adolescent and adult offenders vs. non-offenders. *Journal of Offender Rehabilitation*, 33(3), 27-45.
- Bernard, B. (1991). *Fostering resiliency in kids: Protective factors in the family, school and community*. Retrieved from [https://www.wested.org/wp-content/files\\_mf/1373568312resource93.pdf](https://www.wested.org/wp-content/files_mf/1373568312resource93.pdf)
- Beylevel, D. (1979). Deterrence research as a basis for deterrence policies. *The Howard Journal of Criminal Justice*, 18(3), 135-149. doi:10.1111/j.1468-2311.1979.tb00388.x
- Blair, R. J. R. (2003). Neurobiological basis of psychopathy. *The British Journal of Psychiatry*, 182(1), 5-7.
- Bloomberg, L. D., & Volpe, M. (2008). *Completing your qualitative dissertation: A road map from beginning to end*. Thousand Oaks, California: Sage.

- Bloom, T., & Friedman, H. (2013). Classifying dogs' (*Canis familiaris*) facial expressions from photographs. *Behavioural Processes*, 96, 1-10.
- Bogenschneider, K. (1996). An ecological risk/protective theory for building prevention programs, policies, and community capacity to support youth. *Family Relations*, 45(2), 127-138.
- Bolwig, N. (1964). Facial expression in primates with remarks on a parallel development in certain carnivores. *Behaviour*, 22(3/4), 167-192.
- Boonin, D. (2008). *The Problem of Punishment*. Cambridge, England: Cambridge University Press.
- Borzycki, M., & Baldry, E. (2003). *Promoting integration: The provision of prisoner post-release services*. Retrieved from Canberra: <http://www.aic.gov.au/publications/current%20series/tandi/261-280/tandi262.html>
- Bottoms, A. E., Shapland, J., Costello, D., Holmes, D., & Muir, G. (2004). Towards desistance: Theoretical underpinnings for an empirical study. *The Howard Journal of Criminal Justice*, 43(4), 368-389.
- Bowlby, J. (1982). *Attachment and loss: Attachment* (2nd ed. Vol. 1). New York: Basic Books.
- Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, California: Sage.
- Braithwaite, J. (1989). *Crime, shame, and reintegration*. Cambridge, England: Cambridge University Press.
- Brannigan, A. (1997). Self control, social control and evolutionary psychology: Towards an integrated perspective on crime. *Canadian Journal of Criminology*, 39, 403-431.
- Bräuer, J., Kaminski, J., Riedel, J., Call, J., & Tomasello, M. (2006). Making inferences about the location of hidden food: Social dog, causal ape. *Journal of Comparative Psychology*, 120(1), 38-47.
- Braune, V., & Clarke, V. (2012). *Thematic analysis*. In H. Cooper (Ed.), *APA Handbook of Research Methods in Psychology: Vol. 2. Research Designs*. Washington, D.C: American Psychological Association.
- Britton, D. M., & Button, A. L. (2005). Prison pups: Assessing the effects of dog training programs in correctional facilities. *Journal of Family Social Work*, 9(4), 79-95.
- Britton, D. M., & Button, A. L. (2007). This isn't about us: Benefits of dog training programs in a women's prison. In S. L. Miller (Ed.), *Criminal Justice Research and Practice: Diverse Voices from the Field* (pp. 195-209). Boston, Massachusetts: Northeastern University Press.
- Brown, S. E. (2004). The human-animal bond and self-psychology: Toward a new understanding. *Society & Animals*, 12(1), 67-86.
- Burger, E., Stetina, B. U., Turner, K., McElheney, J., & Handlos, U. (2011). Dog-assisted therapy in prison: Emotional competencies and emotional status of drug-addicted criminal offenders. *Journal of Veterinary Behavior Clinical Applications and Research*, 6(1), 79-80.
- Burke, D. (2001). Empathy in sexually offending and nonoffending in adolescent males. *Journal of Interpersonal Violence*, 16, 222-233.
- Bush, C., Mullis, R., & Mullis, A. (2000). Differences between offender and nonoffender youth. *Journal of Youth and Adolescence*, 29, 467-478.

- Button, A. (2007). *"Freedom from themselves" gendered mechanisms of control, power, and resistance in prison dog training programs*. (Master of Arts Masters), Kansas State university. Retrieved from <http://krex.k-state.edu/dspace/bitstream/handle/2097/381/AndreaButton2007.pdf?sequence=1&isAllowed=y>
- Caird, R. (1974). *A good and useful life: Imprisonment in Britain today*. London, England: Hart-Davis MacGibbon.
- Call, J., Bräuer, J., Kaminski, J., & Tomasello, M. (2003). Domestic dogs (*Canis familiaris*) are sensitive to the attentional state of humans. *Journal of Comparative Psychology*, 117(3), 735-746.
- Campo, R. C., & Unchino, B. N. (2013). Humans' bonding with their companion dogs: Cardiovascular benefits during and after stress. *Journal of Sociology & Social Welfare*, 40(4), 237-260.
- Carlen, P. (2006). The nonsense of the therapeutive prison for women and men. *The Howard League Magazine*, 24(3), 6.
- Carr, W., Rotter, M., Steinbacher, M., Green, D., Dole, T., & Garcia-Mansilla, A. (2006). Structured assessment of correctional adaptation: A measure of the impact of incarceration on the mentally ill in a therapeutic setting. *International Journal of Offender Therapy and Comparative Criminology*, 50(5), 570-581.
- Cassel, J. (1976). The contribution of the social environment to host resistance. *American Journal of Epidemiology*, 104(2), 107-123.
- Challinor, L. (2009). *Churchill fellowship report*. Retrieved from [https://www.churchilltrust.com.au/media/fellows/Challinor\\_Lynne\\_2009.pdf](https://www.churchilltrust.com.au/media/fellows/Challinor_Lynne_2009.pdf)
- Chandler, C. K. (2012). *Animal assisted therapy in counseling* (2nd ed.). New York: Routledge.
- Cherniss, C. (2001). Emotional intelligence and organizational effectiveness. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 3-12). San Francisco, California: Jossey-Bass.
- Chianese, N. M. (2010). *Girls, jails, and puppy dog tails: An evaluation of the new leash on life program*. (Master of Arts in Sociology), California State University.
- Clarke, R. V., & Cornish, D. B. (1985). Modeling offenders' decisions: A framework for research and policy. *Crime and Justice*, 6, 147-185.
- Clear, T. (1994). *Harm in American penology: Offenders, victims and their communities*. Albany, New York: State University of New York Press.
- Clemmer, D. (1940). *The prison community*. Boston, Massachusetts: Christopher Publishing House.
- Clutton-Brock, J. (1995). Origins of the dog: Domestication and early history. In J. Serpell (Ed.), *The domestic dog: Its evolution, behaviour and interactions with people* (pp. 7-20). Cambridge, England: Cambridge University Press.
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300-314.
- Coffey, A., & Atkinson, P., (1996). Concepts and coding. In A. Coffey & P. Atkinson (Eds.) *Making sense of qualitative data: Complementary research strategies*. Thousand Oaks, California, Sage.
- Cohen, D., & Strayer, J. (1996). Empathy in conduct-disordered and comparison youth. *Developmental Psychology*, 32(6), 988-998.

- Conniff, K. M., Scarlett, J. M., Goodman, S., & Appel, L. D. (2005). Effects of a pet visitation program on the behavior and emotional state of adjudicated female adolescents. *Anthrozoös*, 18(4), 379-395.
- Conroy, J. W., Ferris, C. S., & Furdella, J. A. (2012). *Canines in corrections: A qualitative analysis*. Retrieved from Havertown, Pennsylvania: <http://www.eoutcome.org/Uploads/COAUploads/PdfUpload/CV-Conroy-Long-2016-03-16a.pdf>
- Cooke, B. J., & Farrington, D. P. (2014). Perceived effects of dog-training programmes in correctional settings. *Journal of Forensic Practice*, 16(3), 171-183.
- Cooke, B. J., & Farrington, D. P. (2015). The effects of dog-training programs: Experiences of incarcerated females. *Women & Criminal Justice*, 25(3), 201-214.
- Coomber, R., Donnermeyer, J. F., McElrath, K., & Scott, J. (2015). *Key concepts in crime and society*. Los Angeles, California: Sage.
- Coopersmith, S. (1967). *The antecedents of self-esteem*. San Francisco: W. H. Freeman & Co.
- Coppinger, R., & Schneider, R. (1995). Evolution of working dogs. In J. Serpell (Ed.), *The domestic dog: Its evolution, behaviour, and interactions with people* (pp. 21-47). Cambridge, England: Cambridge University Press.
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research. Techniques and procedures for developing grounded theory* (3rd ed.). Thousand Oaks, California: Sage.
- Corden, B., Critchley, H. D., Skuse, D., & Dolan, R. J. (2006). Fear recognition ability predicts differences in social cognitive and neural functioning in men. *Journal of Cognitive Neuroscience*, 18(6), 889-897.
- Corrective Services NSW. (2012). *NSW 2021 performance report 2012-2013*. Retrieved from [http://www.2021.nsw.gov.au/sites/default/files/pdf/NSW\\_2021\\_Performance\\_Report\\_2012-13.pdf](http://www.2021.nsw.gov.au/sites/default/files/pdf/NSW_2021_Performance_Report_2012-13.pdf)
- Corrective Services NSW. (2014). *School's in for newest digger dog graduates* [Press release]. Retrieved from <http://www.justice.nsw.gov.au/Documents/Media%20Releases/2014/MRCSNSW-11022014-dogs-diggers-graduates.pdf>
- Corrective Services WA. (2011). *Puppies enroute to prison farm* [Press release]. Retrieved from <http://www.correctiveservices.wa.gov.au/news/details-print.aspx?id=890>
- Costa, P. (2010a). *Inmates and RSPCA save dogs from death row* [Press release]. Retrieved from [http://www.correctiveservices.nsw.gov.au/data/assets/pdf\\_file/0016/351205/Media-Release-Dog-Rehab.pdf](http://www.correctiveservices.nsw.gov.au/data/assets/pdf_file/0016/351205/Media-Release-Dog-Rehab.pdf)
- Costa, P. (2010b). *Minister launches 'Greyhounds as Pets' program at Dillwynia Correctional Centre* [Press release]. Retrieved from [http://www.correctiveservices.nsw.gov.au/data/assets/pdf\\_file/0011/197705/20100413-minister-launches-greyhounds-pets-program-dillwynia-cc.pdf](http://www.correctiveservices.nsw.gov.au/data/assets/pdf_file/0011/197705/20100413-minister-launches-greyhounds-pets-program-dillwynia-cc.pdf)
- Coyle, A. (1994). *The prisons we deserve*. London, England: Harper Collins.
- Crabtree, B., & Miller, W. (1999). A template approach to text analysis: Developing and using codebooks. In B. Crabtree & W. Miller (Eds.), *Doing Qualitative Research* (pp. 163-177). Newbury Park, California: Sage.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, California: Sage.
- Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and Conducting Mixed Methods*. California: Sage.

- Crosnoe, R., Erickson, K., & Dornbusch, S. (2002). Protective functions of family relationships and school factors on the deviant behavior of adolescent boys and girls: Reducing the impact of risky friendships. *Youth & Society*, 33(4), 515-544.
- Crouch, B. M. (1996). Looking back to see the future of corrections. *The Prison Journal*, 76(4), 468-474.
- Cullen, F. T. (2000). Assessing correctional rehabilitation: Policy, practice and prospects. *Criminal Justice 2000: Policies, processes and Decision of the Criminal Justice System*, 3, 109-151.
- Curcio, S. (1995). *Finding modern ways to teach today's youth*. Retrieved from <http://www.thefreelibrary.com/Finding+modern+ways+to+teach+today's+youth.-a016871121>
- Curran, J., MacQueen, S., Whyte, B., & Boyle, J. (2007). *Forced to make amends: An evaluation of the community reparation order pilots*. Retrieved from [http://www.sccjr.ac.uk/wp-content/uploads/2010/01/Forced\\_to\\_make\\_amends.pdf](http://www.sccjr.ac.uk/wp-content/uploads/2010/01/Forced_to_make_amends.pdf)
- Currie, N. S. (2008). *A case study of incarcerated males participating in a canine training program*. (Doctor of Philosophy), Kansas State University. Retrieved from <https://krex.k-state.edu/dspace/bitstream/handle/2097/1028/NikkiCurrie2008.pdf?sequence=1>
- Cusson, M., & Pinsonneault, P. (2014). The decision to give up crime. In D. B. Cornish & R. V. Clarke (Eds.), *The reasoning criminal* (pp. 72-82). New Brunswick, New Jersey: Transaction Publishers.
- Czaja, R., & Blair, J. (1996). *Designing Surveys: A guide to decisions and procedures*. Thousand Oaks, California: Pine Forge Press.
- Dalziel, D. J., Uthman, B. M., Mcgorray, S. P., & Reep, R. L. (2003). Seizure-alert dogs: A review and preliminary study. *Seizure*, 12(2), 115-120.
- Darwin, C. (1998). *The expression of emotions in man and animals* (3rd ed.). Hammersmith, London: Harper Collins Publishers. (Original work published 1872).
- Davis, K. (2007). *Perspectives of youth in an animal-centered correctional vocational program: A qualitative evaluation of project POOCH*. (Master of Social Work), Portland State University. Retrieved from <http://www.pooch.org/documents/project-pooch-qualitative-eval.pdf>
- Davis, S. J., & Valla, F. R. (1978). Evidence for domestication of the dog 12,000 years ago in the Natufian of Israel. *Nature*, 276, 608-610.
- Dell, C. A., & Poole, N. (2015). Taking a PAWS to reflect on how the work of a therapy dog supports a trauma-informed approach to prisoner health. *Journal of Forensic Nursing*, 11(3), 167-173.
- Demyan, A. L. (2007). *Rethinking rehabilitation: Examining staff and inmate participation in prison-sponsored dog programs*. (Master of Arts), Ohio University. Retrieved from [https://etd.ohiolink.edu/!etd.send\\_file?accession=ohiou1180639960&disposition=inline](https://etd.ohiolink.edu/!etd.send_file?accession=ohiou1180639960&disposition=inline)
- Dennison, P. (2005). *Complete idiot's guide to positive dog training*. New York: Alpha.
- Di Vito, L., Naldi, I., Mostacci, B., Licchetta, L., Bisulli, F., & Tinuper, P. (2010). A seizure response dog: Video recording of reacting behaviour during repetitive prolonged seizures. *Epileptic Disorders*, 12(2), 142-145.
- Doherty, M. J., & Haltiner, A. M. (2007). Wag the dog: Skepticism on seizure alert canines. *Neurology*, 68(4), 309-309.

- Donnellan, A. (Producer). (2016). *SA budget 2016: Overcrowded prisons to get \$56.1m for new beds*. ABC News. Retrieved from <http://www.abc.net.au/news/2016-07-06/sa-budget-2016-prison-beds-boosted/7573962>
- Donnelly, N., Halstead, I., Corben, S., & Weatherburn, D. (2015). The 2015 NSW prison population forecast. *Bureau Brief* (Vol. 105): NSW Bureau of Crime Statistics and Research. Retrieved from <http://www.bocsar.nsw.gov.au/Documents/BB/BB105.pdf>
- Drew, J. D., Dearborn, C., Evans, M., Gagne, A., McBean, D., Saville, F., & Silliman, T. (2013). *The power of prison pups: The impact of the NEADS program on inmate dog trainers, MCI/Framingham, and the community*. Retrieved from <https://www.neads.org/sites/default/files/prison%20pups%20report%20FINAL%20ANSWER%203242014%20mg%20040314.pdf>
- Duff, A., & Garland, D. (1994). *A reader on punishment*. Oxford, England: Oxford University Press.
- Durkheim, E. (2014). *The division of labour in society* (W. D. Halls, Trans., S. Lukes Ed. 2nd ed.). New York: The Free Press. (Original work published 1893).
- DVConnect Womensline. (2016). *Pets in crisis*. Retrieved from <http://www.dvconnect.org/pets-in-crisis/>
- Edgar, K., O'Donnell, I., & Martin, C. (2011). *Prison violence: The dynamics of conflict, fear and power*. New York: Routledge.
- Ekman, P. & Friesen. (2003). *Unmasking the Face*. Cambridge, Massachusetts: Malor Books.
- Elliott, D., & Menard, S. (1996). Delinquent friends and delinquent behavior. In J. D. Hawkins (Ed.), *Delinquency and Crime: Current Theories* (pp. 28-67). Cambridge, England: Cambridge University Press.
- Ermer, E., Kahn, R. E., Salovey, P., & Kiehl, K. A. (2012). Emotional intelligence in incarcerated men with psychopathic traits. *Journal of Personality and Social Psychology, 103*(1), 194-204.
- Extra Edge Community Services. (2012). *School for greyhounds in Hakea prison: Program report and best practice summary of an employment focused animal assisted therapeutic support and intervention*. Unpublished report, Extra Edge Community Services Western Australia.
- Farrall, S., & Bowling, B. (1999). Structuration, human development and desistance from crime. *British Journal of Criminology, 39*(2), 253-268.
- Farrall, S., & Calverley, A. (2005). *Understanding desistance from crime*. Maidenhead, Berkshire, England: Open University Press.
- Farrall, S., & Maruna, S. (2004). Desistance-focused criminal justice policy research: Introduction to a special issue on desistance from crime and public policy. *The Howard Journal of Crime and Justice, 43*(4), 358-367.
- Farrington, D. P. (1987). Predicting individual crime rates. *Crime and Justice, 9*, 53-101.
- Farrington, D. P. (1998). Individual differences and offending. In M. Tonry (Ed.), *The handbook of crime and punishment* (pp. 241-268). New York: Oxford University Press.
- Farrington, D. P., & Hawkins, J. D. (1991). Predicting participation, early onset and later persistence in officially recorded offending. *Criminal Behaviour and Mental Health, 1*(1), 1-33.
- Farrington, D. P., & West, D. J. (1995). Effects of marriage, separation and children on offending by adult males. In Z. S. Blau & J. Hagan (Eds.), *Current perspectives on aging and the life cycle* (Vol. 4, pp. 249-281). Greenwich, Connecticut: JAI Press.

- Farrington, D. P., & Wikstrom, P. O. H. (1994). Criminal careers in London and Stockholm: A cross-national comparative study. In E. Weitekamp & H.-J. Kerner (Eds.), *Cross-national longitudinal research on human development and criminal behavior* (pp. 65-90). Netherlands: Springer.
- Feeley, M., & Simon, J. (1992). The new penology: Notes on the emerging strategy of corrections and its implications. *Criminology*, 30(4), 449-474.
- Fine, A. H., & Melson, G. (2010). Animals in the lives of children. In A. H. Fine (Ed.), *Animal-assisted therapy: Theoretical foundations and guidelines for practice* (pp. 223-245). London, England: Elsevier.
- Fisher, B. J., & Cozens, M. (2014). *The BaRK (building reading confidence for kids) canine assisted reading program: One child's experience*. Retrieved from [http://research.avondale.edu.au/cgi/viewcontent.cgi?article=1051&context=edu\\_paper\\_s](http://research.avondale.edu.au/cgi/viewcontent.cgi?article=1051&context=edu_paper_s)
- Fisher, D., Beech, A., & Browne, K. (1999). Comparison of sex offenders to nonoffenders on selected psychological measures. *International Journal of Offender Therapy and Comparative Criminology*, 43(4), 473-491.
- Foucault, M. (1995). *Discipline and punish: The birth of the prison* (A. Sheridan, Trans.). New York: Vintage Books.
- Fournier, A., Geller, E., & Fortney, E. (2007). Human-animal interaction in a prison setting: Impact on criminal behavior, treatment progress, and social skills. *Behavior and Social Issues*, 16(1), 89-105.
- Fridlund, A. J. (1991). Evolution and facial action in reflex, social motive, and paralanguage. *Biological Psychology*, 32(1), 3-100.
- Friedmann, E., Thomas, S. A., Cook, L. K., Tsai, C.-C., & Picot, S. J. (2007). A friendly dog as potential moderator of cardiovascular response to speech in older hypertensives. *Anthrozoös*, 20(1), 51-63.
- Fromm, E. (1964). *The heart of man: Its genius for good and evil*. New York: Harper and Row.
- Furst, G. (2006). Prison-based animal programs: A national survey. *The Prison Journal*, 86(4), 407-430.
- Furst, G. (2007a). Prison-based animal programs: Self-reported effects of participation and implications for desistance. *Prison Service Journal*, 172, 38-44.
- Furst, G. (2007b). Without words to get in the way: Symbolic interaction in prison-based animal programs. *Qualitative Sociology Review*, 3(1), 96-109.
- Furst, G. (2009). How prison-based animal programs change prisoner participants. In A. Arluke & C. Sanders (Eds.), *Between the species: Reading in human animal relationships* (pp. 293-302). Boston: Pearson.
- Furst, G. (2011). *Animal programs in prison*. London, England: First Forum Press.
- Gabrielle, S. (2013). *New leashes on life*. Retrieved from <http://www.communitynews.com.au/hills-gazette/news/new-leashes-on-life/>
- Gácsi, M., Maros, K., Sernkvist, S., Faragó, T., & Miklósi, A. (2013). Human analogue safe haven effect of the owner: behavioural and heart rate response to stressful social stimuli in dogs. *PLoS one*, 8(3), e58475. doi:<http://dx.doi.org/10.1371/journal.pone.0058475>



- Gaes, G., & McGuire, W. (1985). Prison violence: The contribution of crowding versus other determinants of prison assault rates. *Journal of Research in Crime and Delinquency*, 22(1), 41-65.
- García-Sancho, E., Salguero, J., & Fernández-Berrocal, P. (2014). Relationship between emotional intelligence and aggression: A systematic review. *Aggression and Violent Behavior*, 19(5), 584-591.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Garland, D. (1991). Sociological perspectives on punishment. *Crime and Justice*, 14, 115-165.
- Garland, D. (2001a). *The culture of control: Crime and social order in contemporary society*. Oxford, England: Oxford University Press.
- Garland, D. (2001b). *Mass imprisonment : Social causes and consequences*. London, England: Sage.
- Garmon, J. (2002). The power of prison education. *Community College Week*, 14(26), 4-6.
- Gerring, J. (2007). *Case Study Research: principles and practices*. Cambridge, Massachusetts: Cambridge University Press.
- Gibbs, J. (1982). The first cut is the deepest: Psychological breakdown and survival in the detention setting. In R. Johnson & H. Toch (Eds.), *The pains of imprisonment* (pp. 97-114). Beverly Hills, California: Sage.
- Gibbs, J. P. (1978). The death penalty: Retribution and penal policy. *The Journal of Criminal Law, Criminology and Police Science*, 69(3), 291-299.
- Gilger, C. G. (2007). *Cell dog: No effect of dog training programs on prisoner's self-efficacy*. (Master of Science), Emporia State University. Retrieved from <http://gradworks.proquest.com/14/51/1451051.html>
- Gill, J. K., & Walsh, J. (2010). Control Group. In N. J. Salkind *Encyclopedia of research design*. Thousand Oaks, California: Sage.
- Giordano, P. C., Cernkovich, S. A., & Holland, D. D. (2003). Changes in friendship relations over the life course: Implications for desistance from crime. *Criminology*, 41(2), 293-328.
- Giordano, P. C., Cernkovich, S. A., & Rudolph, J. L. (2002). Gender, crime, and desistance: Toward a theory of cognitive transformation. *American Journal of Sociology*, 107(4), 990-1064.
- Glueck, S., & Glueck, E. (1950). *Unraveling juvenile delinquency*. Cambridge, Massachusetts: Harvard University Press.
- Glueck, S., & Glueck, E. T. (1937). *Later criminal careers* (Vol. 1): New York, Commonwealth fund.
- Goffman, E. (1957). On the characteristics of total institutions. In Walter Reed Army Medical Centre (Ed.), *Symposium on preventive and social psychiatry* (pp. 43-84). Washington.
- Goffman, E. (1961). *Asylums; essays on the social situation of mental patients and other inmates*. Garden City, New York: Anchor Books.
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Goleman, D. (2001a). An EI-based theory of performance. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 27-44). San Francisco: Jossey-Bass.

- Goleman, D. (2001b). Issues in Paradigm Building. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 13-26). San Francisco: Jossey-Bass.
- Goodwin, V. (2016). *Prison infrastructure upgrades* [Press release]. Retrieved from [http://www.premier.tas.gov.au/releases/prison\\_infrastructure\\_upgrades](http://www.premier.tas.gov.au/releases/prison_infrastructure_upgrades)
- Gordon, R. T., Schatz, C. B., Myers, L. J., Kosty, M., Gonczy, C., Kroener, J., Tran, M., Kurtzhals, P., Heath, S., & Koziol, J. A. (2008). The use of canines in the detection of human cancers. *The Journal of Alternative and Complementary Medicine*, *14*(1), 61-67.
- Gove, W. R. (1985). *The effect of age and gender on deviant behavior: A biopsychosocial perspective*. In A. Rossi (Eds.), *Gender and the Life Course* (pp. 115-144). New York: Aldine Publishing Company.
- Graham, H. (2012). The path forward: Policing diversion and desistance. In T. Bartowiak & N. Asquith (Eds.), *Policing vulnerability* (pp. 262-277). Annandale, NSW: The Federation Press.
- Griffin, J. B. (1967). Eastern north American archaeology: A summary. *Science*, *156*(3772), 175-191.
- Gunby, P. (1981). Sexual behavior in an abnormal situation. *Journal of the American Medical Association*, *245*(3), 215-220.
- Haggård, U. A., Gumpert, C. H., & Grann, M. (2001). Against all odds a qualitative follow-up study of high-risk violent offenders who were not reconvicted. *Journal of Interpersonal Violence*, *16*(10), 1048-1065.
- Hall, J. (2008). Cross-sectional survey design. In P. J. Lavrakas (Ed.), *Encyclopedia of survey research methods*. Thousand Oaks, California: Sage.
- Handlin, L., Hydbring-Sandberg, E., Nilsson, A., Ejdebäck, M., Jansson, A., & Uvnäs-Moberg, K. (2011). Short-term interaction between dogs and their owners – Effects on oxytocin, cortisol, insulin and heart rate – an exploratory study. *Anthrozoös*, *24*, 301-315.
- Handlin, L., Nilsson, A., Ejdebäck, M., Hydbring-Sandberg, E., & Uvnäs-Moberg, K. (2012). Associations between the psychological characteristics of the human-dog relationship and oxytocin and cortisol levels. *Anthrozoös*, *25*(2), 215-228.
- Haney, C. (2002, January). *The psychological impact of incarceration: Implications for post-prison adjustment*. Paper presented at the From Prison to Home conference, Washington. Retrieved from <http://www.urban.org/sites/default/files/publication/60676/410624-The-Psychological-Impact-of-Incarceration.PDF>
- Haney, C. (2006). The wages of prison overcrowding: Harmful psychological consequences and dysfunctional correctional reactions. *Washington University Journal of Law and Policy*, *22*, 265-293.
- Haney, C. (2012). Prison effects of in the age of mass incarceration. *The Prison Journal*, 1-24. doi:<http://dx.doi.org/10.1177%2F0032885512448604>
- Haney, C., Banks, C., & Zimbardo, P. G. (1973). Interpersonal dynamics in a simulated prison. *International Journal of Criminology and Penology*, *1*, 69-97.
- Harbolt, T., & Ward, T. (2001). Teaming incarcerated youth with shelter dogs for a second chance. *Society & Animals*, *9*(2). Retrieved from <http://www.animalsandsociety.org/wp-content/uploads/2015/11/harbolt.pdf>
- Hare, B., Brown, M., Williamson, C., & Tomasello, M. (2002). The domestication of social cognition in dogs. *Science*, *298*(5598), 1634-1636.

- Hare, B., & Tomasello, M. (1999). Domestic dogs (*Canis Familiaris*) use human and conspecific social cues to locate hidden food. *Journal of Comparative Psychology*, 113(2), 173-177.
- Hare, B., & Tomasello, M. (2005). Human-like social skills in dogs? *Trends in Cognitive Sciences*, 9(9), 439-444.
- Harkrader, T., Burke, T. W., & Owen, S. S. (2004). Pound puppies: The rehabilitative uses of dogs in correctional facilities. *Corrections Today*, 66(2), 74-79.
- Harper, G., & Chitty, C. (2005). *The impact of corrections on re-offending: A review of 'what works'*. Retrieved from <http://webarchive.nationalarchives.gov.uk/20110218135832/rds.homeoffice.gov.uk/rds/pdfs04/hors291.pdf>
- Haug, L. I. (2005). Dominance: The dirty word. *The APDT Chronicle of the Dog*, May/June, 12-23.
- Hayes, M. J., & O'Reilly, G. (2013). Psychiatric disorder, IQ, and emotional intelligence among adolescent detainees: A comparative study. *Legal and Criminological Psychology*, 18(1), 30-47.
- Headey, B., Na, F., & Zheng, R. (2008). Pet dogs benefit owners' health: A 'natural experiment' in China. *Social Indicators Research*, 87(3), 481-493.
- Healy, D. (2010). *The dynamics of desistance: Charting pathways through change*. Collumpton, England: Willan Publishing.
- Henderson, M. (2001). Employment and crime: What is the problem and what can be done about it from an inmates perspective? *Corrections Management Quarterly*, 5(4), 46-52.
- Henley, M., & Long, N. J. (1999). Teaching emotional intelligence to impulsive-aggressive youth. *Reclaiming Children and Youth*, 7(4), 224-229.
- Hennessy, M. B., Morris, A., & Linden, F. (2006). Evaluation of the effects of a socialization program in a prison on behavior and pituitary–adrenal hormone levels of shelter dogs. *Applied Animal Behaviour Science*, 99(1), 157-171.
- Hindes, Y., L., Thorner, K., J., Schwean, V. L., & McKeough, A. M. (2008). Promoting intrapersonal qualities in adolescents. *Canadian Journal of School Psychology*, 23(2), 206-222.
- Hirschi, T. (1969). *Causes of delinquency*. Berkeley, California: University of California Press.
- Hirschi, T., & Gottfredson, M. (1983). Age and the explanation of crime. *American Journal of Sociology*, 89(3), 552-584.
- Heseltine, K., Day, A. & Sarre, R., (2011). Prison-based correctional offender rehabilitation programs: The 2009 national picture in Australia. *Research and Public Policy Series*, 112, Canberra, ACT: Australian Institute of Criminology.
- Hoaken, P., Allaby, D., & Earle, J. (2007). Executive cognitive functioning and the recognition of facial expressions of emotion in incarcerated violent offenders, non-violent offenders and controls. *Aggressive Behavior*, 33(5), 412-421.
- Horn, L., Huber, L., & Range, F. (2013). The importance of the secure base effect for domestic dogs - evidence from a manipulative problem-solving task. *PLoS one*, 8(5), e65296. doi:<http://dx.doi.org/10.1371/journal.pone.0065296>
- Horney, J., Osgood, D. W., & Marshall, I. H. (1995). Criminal careers in the short-term: Intra-individual variability in crime and its relation to local life circumstances. *American Sociological Review*, 60(5), 655-673.

- Horvath, G., Järverud, G. K., Järverud, S., & Horváth, I. (2008). Human ovarian carcinomas detected by specific odor. *Integrative Cancer Therapies*, 7(2), 76-80.
- Howells, K., & Day, A. (1999). The rehabilitation of offenders: International perspectives applied to Australian correctional systems. *Trends and Issues in Criminal Justice* (Vol. 112). Retrieved from [http://aic.gov.au/media\\_library/publications/tandi\\_pdf/tandi112.pdf](http://aic.gov.au/media_library/publications/tandi_pdf/tandi112.pdf)
- Hudson, B. A. (2004). *Understanding justice : An introduction to ideas, perspectives, and controversies in modern penal theory*. Buckingham, England: Open University Press.
- Huey, M., & McNulty, T. (2005). Institutional conditions and prison suicide: Conditional effects of deprivation and overcrowding. *The Prison Journal*, 85(4), 490-514.
- Humpage, A., & Leader, M. (2015, 3 September 2015). Rescue dogs in mates for inmates program at Dame Phyllis Frost Centre, Ravenhall. *Herald Sun*. Retrieved from <http://www.heraldsun.com.au/leader/news/rescue-dogs-in-mates-for-inmates-program-at-dame-phyllis-frost-centre-ravenhall/news-story/1a27937d5ba808b9d783e40511ef0a0a>
- Illescas, S., Sanchez-Meca, & Genoves, V. (2001). Treatment of offenders and recidivism: Assessment of the effectiveness of programs applied in Europe. *Psychology in Spain*, 5(1), 47-62.
- Jacobson, M. (2005). *Downsizing prisons: How to reduce crime and end mass incarceration*. New York: New York University Press.
- Jagtman, M. (2013). *Hairy four-legged friends help prisoners' rehabilitation*. Retrieved from <http://www.qt.com.au/news/prisoners-rehabilitate-with-four-legged-help/1846703/>
- Jalongo, M. R., Astorino, T., & Bomboy, N. (2004). Canine visitors: The influence of therapy dogs on young children's learning and well-being in classroom and hospitals. *Early Childhood Education Journal*, 32(1), 9-16.
- Jasperson, R. A. (2010). Animal-assisted therapy with female inmates with mental illness: A case example from a pilot program. *Journal of Offender Rehabilitation*, 49(6), 417-433.
- Jasperson, R. A. (2011). *Therapeutic interventions and animal assisted therapy with incarcerated females*. (Doctor of Philosophy), University of Utah. Retrieved from <http://content.lib.utah.edu/utis/getfile/collection/etd3/id/598/filename/411.pdf>
- Jasperson, R. A. (2013). An animal-assisted therapy intervention with female inmates. *Anthrozoös*, 26(1), 135-145.
- Jeffries, S. (2005). How justice 'gets done': Politics, managerialism, consumerism, and therapeutic jurisprudence. *Current Issues in Criminal Justice*, 17(2), 254-268.
- Jessor, R., Van Den Bos, J., Vanderryn, J., Costa, F. M., & Turbin, M. S. (1995). Protective factors in adolescent problem behavior: Moderator effects and developmental change. *Developmental Psychology*, 31(6), 923-933.
- Jesuit Social Services. (2014). *Investigation into the rehabilitation and reintegration of prisoners in Victoria*. Retrieved from [http://jss.org.au/wp-content/uploads/2016/06/JSS\\_-\\_Ombudsman\\_submission\\_-\\_final\\_no\\_TC.pdf](http://jss.org.au/wp-content/uploads/2016/06/JSS_-_Ombudsman_submission_-_final_no_TC.pdf)
- Johansson, M. (2009). Why unreal punishments in response to unreal crimes might actually be a really good thing. *Ethics and Information Technology*, 11(1), 71-79.
- Johnson, R. (2017). *Hard time: Understanding and reforming the prison* (4th ed.). Hoboken, New Hersey: Wiley-Blackwell.

- Johnson, R., & Chernoff, N. (2002). Opening a vein: Inmate poetry and the prison experience. *The Prison Journal*, 82(2), 141-167.
- Jolliffe, D., & Farrington, D. P. (2004). Empathy and offending: A systematic review and meta-analysis. *Aggression and Violent Behavior*, 9(5), 441-476.
- Kaebler, D., & Glaze, L. (2016). *Correctional populations in the United States 2015*. Retrieved from <https://www.bjs.gov/content/pub/pdf/cpus15.pdf>
- Kalache, G. (2013). *Dogs go to head of the class after prison rehab*. Retrieved from <http://www.abc.net.au/news/2013-04-16/a-dog27s-day-in-prison/4632990>
- Katcher, A. H., Beck, A. M., & Levine, D. (1989). Evaluation of a pet program in prison: The PAL project at Lorton. *Anthrozoös*, 2(3), 175-180.
- Katcher, A. H., Friedman, E., Beck, A. M., & Lynch, J. (1983). Looking, talking, and blood pressure: The physiological consequences of interaction with the living environment. In A. H. Katcher & A. M. Beck (Eds.), *New perspectives on our lives with companion animals* (pp. 351-359). Philadelphia, Pennsylvania: University of Pennsylvania Press.
- Kazdin, A. (1978). *History of behavior modification: Experimental foundations of contemporary research*. Baltimore, Maryland: University Park Press.
- Kazdin, A. E., Kraemer, H. C., Kessler, R. C., Kupfer, D. J., & Offord, D. R. (1997). Contributions of risk factor research to developmental psychopathology. *Clinical Psychology Review*, 17(4), 375-406.
- Kazemian, L. (2007). Desistance from crime: Theoretical, empirical, methodological and policy considerations. *Journal of Contemporary Criminal Justice*, 23(1), 5-27.
- Kazemian, L., & Maruna, S. (2009). Desistance from crime. In M. D. Krohn (Ed.), *Handbook on crime and deviance* (pp. 277-295). Dordrecht, England: Springer.
- Kelly, W. R. (2015). *Criminal justice at the crossroads: Transforming crime and punishment*. New York: Columbia University Press.
- Keltner, D., & Haidt, J. (2001). Social functions of emotions. In T. Mayne & G. Bonanno (Eds.), *Emotions: Current issues and future directions* (pp. 192-213). New York: Guilford.
- Keltner, D., & Kring, A. M. (1998). Emotion, social function, and psychopathology. *Review of General Psychology*, 2(3), 320-342.
- Kerber, J. E. (1997). Native American treatment of dogs northeastern North America: Archaeological and ethnohistorical perspectives. *Archaeology of Eastern North America*, 25, 81-95.
- King, R., Massoglia, M., & MacMillan, R. (2007). The context of marriage and crime: Gender, the propensity to marry, and offending in early adulthood. *Criminology*, 45(1), 33-65.
- King, T. (2014). *Paws in prison: A second chance*. (Master of Arts in Journalism), University of Arkansas.
- Kirouac, G., & Dore, F. (1983). Accuracy and latency of judgment of facial expressions of emotions. *Perceptual and Motor Skills*, 57(3), 683-686.
- Kirsch, L. G., & Becker, J. V. (2007). Emotional deficits in psychopathy and sexual sadism: Implications for violent and sadistic behavior. *Clinical Psychology Review*, 27(8), 904-922.
- Kirton, A., Winter, A., Wirrell, E., & Snead, O. (2008). Seizure response dogs: Evaluation of a formal training program. *Epilepsy & Behavior*, 13(3), 499-504.

- Kirton, A., Wirrell, E., Zhang, J., & Hamiwka, L. (2004). Seizure-alerting and response behaviors in dogs living with epileptic children. *Neurology*, *62*(12), 2303-2305.
- Knight, B. J., Osborn, S., & West, D. (1977). Early marriage and criminal tendency in males. *British Journal of Criminology*, *17*(4), 348-360.
- Koda, N., Miyaji, Y., Kuniyoshi, M., Adachi, Y., Watababe, G., Miyaji, C., & Yamada, K. (2015). Effects of a dog-assisted program in a Japanese prison. *Asian Journal of Criminology*, *10*(3), 193-208.
- Koda, N., Watanabe, G., Miyaji, Y., Ishida, A., & Miyaji, C. (2015). Stress levels in dogs, and its recognition by their handlers, during animal-assisted therapy in a prison. *Animal Welfare*, *24*(2), 203-209.
- Koda, N., Watanabe, G., Miyaji, Y., Kuniyoshi, M., Miyaji, C., & Hirata, T. (2016). Effects of a dog-assisted intervention assessed by salivary cortisol concentrations in inmates of a Japanese prison. *Asian Journal of Criminology*, *11*(4), 309-319.
- Kohut, H. (1971). *The analysis of the self*. New York: International Universities Press.
- Kohut, H. (1984). *How does analysis cure?* (A. Goldberg Ed.). Chicago: University of Chicago Press.
- Konok, V., Nagy, K., & Miklosi, A. (2015). How do humans represent the emotions of dogs? The resemblance between the human representation of the canine and the human affective space. *Applied Animal Behaviour Science*, *162*, 37-46.
- Krauss, G. L., Choi, J. S., & Lesser, R. P. (2007). Pseudoseizure dogs. *Neurology*, *68*(4), 308-309.
- Krienert, J. L., & Fleisher, M. S. (2004). *Crime and employment: Critical issues in crime reduction for corrections*. Walnut Creek, California: Altamira Press.
- Krug, S., & Laughlin, J. (1976). *Handbook for the IPAT Depression Scale*. Illinois: Institute for Personality and Ability Testing.
- Kruger, K., & Serpell, J. (2006). Animal-assisted interventions in mental health: Definitions and theoretical foundations. In A. H. Fine (Ed.), *Animal-assisted therapy: Theoretical foundations and guidelines for practice* (2nd ed., pp. 21-38). San Diego, California: Elsevier.
- Kruttschnitt, C., Uggen, C., & Shelton, K. (2000). Predictors of desistance among sex offenders: The interaction of formal and informal social controls. *Justice Quarterly*, *17*(1), 61-87.
- L.I.F.E.R.S. (2004). Public safety steering committee of the state correctional institution at Graterford, PA. *The Prison Journal*, *84*, 48S-68S.
- Lai, J. (1998). *Pet facilitated therapy in correctional institutions*. Retrieved from <http://www.csc-scc.gc.ca/publications/fsw/pet/pet-eng.shtml>
- LaJoie, K. (2003). *An evaluation of the effectiveness of using animals in therapy*. (Doctor of Philosophy), Spalding University.
- Laub, J. H., Nagin, D. S., & Sampson, R. J. (1998). Trajectories of change in criminal offending: Good marriages and the desistance process. *American Sociological Review*, *63*(2), 225-238.
- Laub, J. H., & Sampson, R. J. (2001). Understanding desistance from crime. *Crime and Justice*, *28*, 1-69.
- Laub, J. H., & Sampson, R. J. (2003). *Shared beginnings, divergent lives: Delinquent boys to age 70*. Cambridge, Massachusetts: Harvard University Press.

- Lawrence, C., & Andrews, K. (2004). The influence of perceived prison crowding on male inmates' perception of aggressive events. *Aggressive Behavior*, 30(4), 273-283.
- Lawrence, E. (1988). Those who dislike pets. *Anthrozoös*, 1(3), 147-148.
- Le Blanc, M., & Loeber, R. (1998). Developmental criminology updated. *Crime and Justice*, 23, 115-198.
- LeBel, T. P. (2012). Invisible stripes? Formerly incarcerated persons' perceptions of stigma. *Deviant Behavior*, 33, 89-107.
- LeBel, T. P., Burnett, R., Maruna, S., & Bushway, S. (2008). The 'chicken and egg' of subjective and social factors in desistance from crime. *European Journal of Criminology*, 5(2), 131-159.
- LeBel, T. P., Maruna, S., Burnett, R., Bushway, S., & Kierkus, C. A. (2002, November). *The dynamics of desistance and prisoner reentry: Findings from a 10 year follow-up of the Oxford university 'dynamics of recidivism' study*. Paper presented at the American Society of Criminology Conference, Chicago.
- Leeds, R. (1963). Altruism and the norm of giving. *Merrill Palmer Quarterly*, 9(3), 229-260.
- Lemert, E. M. (1967). *Human deviance, social problems and social control*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Leonardi, R., Buchanan-Smith, H. M., McIvor, G., & Vick, S.-J. (2012, July). *Measuring benefits to Scottish male young offenders in the first prison-based dog training programme in the UK*. Paper presented at the International Society of Zoology: The Arts & Sciences of Human-Animal Interaction, Cambridge, England.
- Levenson, J., & Farrant, F. (2002). Unlocking Potential: Active citizenship and volunteering by prisoners. *Probation Journal*, 49(3), 195-204.
- Levine, T. (2013). *Foster care at Arthur Gorrie*. Retrieved from [http://www.geogroup.com/documents/geoworld\\_pdfs/1q13\\_geo\\_world.pdf](http://www.geogroup.com/documents/geoworld_pdfs/1q13_geo_world.pdf)
- Levinson, B. M. (1969). *Pet oriented child psychotherapy*. Springfield, Illinois: Charles C Thomas.
- Lim, K., Wilcox, A., Fisher, M., & Burns-Cox, C. (1992). Type 1 diabetics and their pets. *Diabetic Medicine*, 9(2), S3-S4.
- Listwan, S. J., Sullivan, C. J., Agnew, R., Cullen, F. T., & Colvin, M. (2011). The pains of imprisonment revisited: The impact of strain on inmate recidivism. *Justice Quarterly*, 30(1), 144-168.
- Lloyd, J., & Sorin, R. (2014). *Engaging the imagination: The effect of the classroom canines program on reading and social/emotional skills of selected primary school students*. Retrieved from <http://researchonline.jcu.edu.au/36786/6/36786%20Lloyd%20and%20Sorin%202014.pdf>
- Lloyd, M., & Beynon, J. (2008). The health effects of solitary confinement. In S. Shalev (Ed.), *A sourcebook on solitary confinement* (pp. 9-24). London, England: Mannheim Centre for Criminology. Retrieved from [http://solitaryconfinement.org/uploads/sourcebook\\_web.pdf](http://solitaryconfinement.org/uploads/sourcebook_web.pdf)
- Locke, J. (1693) *Some thoughts concerning education*. Woodbury, New York: Barron's Educational Series. Original work published 1693.
- Loeber, R., Stouthamer-Loeber, M., Van Kammen, W., & Farrington, D. P. (1991). Initiation, escalation and desistance in juvenile offending and their correlates. *Journal of Criminal Law and Criminology*, 82(1), 36-54.

- Lorenz, K. (2005). *On aggression* (M. K. Wilson, Trans.). London: Routledge. Original work published 1963.
- Lubbock, J. (1889). *On the senses, instincts, and intelligence of animals: With special reference to insects* (2nd ed.). London, England: Kegan Paul, Trench & Co.
- Lulham, R., Weatherburn, D., & Bartels, L. (2009). The recidivism of offenders given suspended sentences: A comparison with full-time imprisonment. *Crime and Justice Bulletin* (Vol. 136): NSW Bureau of Crime Statistics and Research. Retrieved from <http://www.bocsar.nsw.gov.au/Documents/CJB/cjb136.pdf>
- Lynch, J. (1977). *The broken heart: The medical consequences of loneliness*. New York: Basic Books.
- Lynch, J. (2000). *A cry unheard: New insights into the medical consequences of loneliness*. Baltimore, Maryland: Bancroft.
- Mackay, A. (2014). *Accommodating people in cages and shipping containers: The reality of overcrowded prisons*. Retrieved from <http://asiapacific.anu.edu.au/regarding-rights/2014/01/31/accommodating-people-in-cages-and-shipping-containers-the-reality-of-overcrowded-prisons/>
- Mackay, A. (2015). Overcrowding in Australian prisons: The human rights implications. *Precedent*, 37(128), 37-41.
- Malterer, M., Glass, S., & Newman, J. (2008). Psychopathy and trait emotional intelligence. *Personality and Individual Differences*, 44(3), 733-743.
- Marcus, R., & Gray, L. (1998). Close relationships of violent and nonviolent African American delinquents. *Violence and Victims*, 13(1), 31-46.
- Marsh, A. A., & Ambady, N. (2007). The influence of the fear facial expression on prosocial responding. *Cognition and Emotion*, 21(2), 225-247.
- Marsh, A. A., & Blair, R. (2008). Deficits in facial affect recognition among antisocial populations: A meta-analysis. *Neuroscience and Biobehavior Review*, 32(3), 454-465.
- Marsh, K., Fox, C., & Rashmi, S. (2009). Is custody an effective sentencing option for the UK? Evidence from a meta-analysis of existing studies. *Probation Journal*, 56(2), 129-151.
- Marston, L., & Bennett, P. C. (2003). Reforming the bond - Towards successful canine adoption. *Applied Animal Behaviour Science*, 83, 227-245.
- Martin, R. (1985). Perceptions of self and significant others in assaultive and nonassaultive criminals. *Journal of Police and Criminal Psychology*, 1(2), 2-13.
- Martinson, R. (1974). What works? Questions and answers about prison reform. *The Public Interest*, 35, 22-54.
- Maruna, S. (2001). *Making good: How ex-convicts reform and rebuild their lives*. Washington: American Psychological Association.
- Maruna, S., Immarigeon, R., & LeBel, T. P. (2013). Ex-offender reintegration: Theory and practice. In S. Maruna & R. Immarigeon (Eds.), *After crime and punishment* (pp. 3-26). Collumpton, England: Willan Publishing.
- Maruna, S., LeBel, T. P., & Lanier, C. (2004). Generativity behind bars: Some 'redemptive truth' about prison society. In E. de St. Aubin, D. P. McAdams, & T. Kim (Eds.), *The generative society: Caring for future generations* (pp. 131-151). Washington: American Psychological Association.



- Maruna, S., & Roy, K. (2007). Amputation or reconstruction? Notes on the concept of "knifing-off" and desistance from crime. *Journal of Contemporary Criminal Justice*, 23(1), 104-124.
- Matthews, R. (2009). *Doing time: An introduction to the sociology of imprisonment* (2nd ed.). New York: Palgrave MacMillan.
- Matthews, R., & Pitts, J. (1998). Rehabilitation, recidivism, and realism: Evaluating violence reduction programs in prison. *The Prison Journal*, 78(4), 390-405.
- Matza, D. (1964). *Delinquency and drift*. New York: Wiley.
- Maume, M. O., Ousey, G. C., & Beaver, K. (2005). Cutting the grass: A reexamination of the link between marital attachment, delinquent peers and desistance from marijuana use. *Journal of Quantitative Criminology*, 21(1), 27-53.
- Mayer, J., & Salovey, P. (1997). What is emotional intelligence. In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). New York: Basic Books.
- Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion*, 3(1), 97-105
- McClelland, D. C. (1998). Identifying competencies with behavioral-event interviews. *Psychological Science*, 9(5), 331-340.
- McConnell, P. (2009). *For the love of a dog: Understanding emotion in you and your best friend*. New York: Ballantine Books.
- McConville, S. (1998). The Victorian prison: England, 1865-1965. In N. Morris & D. J. Rothman (Eds.), *The Oxford history of the prison: The practice of punishment in western society* (pp. 117-150). Oxford, England: Oxford University Press.
- McCorkle, R. (1992). Personal precautions to violence in prison. *Criminal Justice and Behaviour*, 19(2), 160-173.
- McCulloch, M., Jezierski, T., Broffman, M., Hubbard, A., Turner, K., & Janecki, T. (2006). Diagnostic accuracy of canine scent detection in early-and late-stage lung and breast cancers. *Integrative Cancer Therapies*, 5(1), 30-39.
- McGuire, J. (2000, July). *What works in reducing criminality*. Paper presented at the Reducing criminality: Partnerships and best practice, Perth, Western Australia. [http://aic.gov.au/media\\_library/conferences/criminality/mcguire.pdf](http://aic.gov.au/media_library/conferences/criminality/mcguire.pdf)
- McMillen, A. (2015). *Dogs on the inside*. Retrieved from <https://www.themonthly.com.au/issue/2015/march/1425128400/andrew-mcmillen/dogs-inside>
- McMurrin, M., & McGuire, J. (2005). *Social problem solving and offending: Evidence, evaluation and evolution* (Vol. 22). West Sussex, England: John Wiley & Sons.
- McNeill, F., & Maruna, S. (2007). Giving up and giving back: Desistance, generativity and social work with offenders. In G. McIvor & P. Raynor (Eds.), *Developments in social work with offenders* (pp. 224-339). London, England: Jessica Kingsley.
- McNicholas, J., & Collis, G. M. (2000). Dogs as catalysts for social interactions: Robustness of the effect. *British Journal of Psychology*, 91(1), 61-70.
- Mead, G. H. (1918). The psychology of punitive justice. *American Journal of Sociology*, 23(5), 577-602. Retrieved from <http://www.jstor.org/stable/pdf/2764150.pdf>
- Meers, L., Stefanini, C., Sofie, D. H., Normando, S., Samuels, W. E., Kalmar, I., & Odberg, F. (2010). Is it wise to involve animals in prisons and rehabilitation programs? A study conducted in Flanders (Belgium). *Journal of Veterinary Behavior Clinical Applications and Research*, 5(1), 50. <http://dx.doi.org/10.1016/j.jveb.2009.09.023>

- Megarani, D. V., Johnson, R., Lombardi, G., Osterlind, S., Yaglom, H. D., Haarman, N. L., & Cade, E. (2016). *Offender outcomes of training dogs in prison: The puppies for parole program*. Retrieved from <https://mospace.umsystem.edu/xmlui/handle/10355/57714>
- Megargee, E. (1977). The association of population density, reduced space, and uncomfortable temperatures with misconduct in a prison community. *American Journal of Community Psychology*, 5(3), 289-298.
- Melbourne City Mission. (2015). *Mates for inmates*. Retrieved from <https://www.melbournecitymission.org.au/services/program-detail/mates-for-inmates>
- Mercer, J., Gibson, K., & Clayton, D. (2015). The therapeutic potential of a prison-based animal programme in the UK. *Journal of Forensic Practice*, 17(1), 43-54.
- Merriam-Arduini, S. (2001). *Discovering project POOCH: A special program for violent incarcerated male juveniles*. (Doctor of Philosophy), Pepperdine University.
- Merton, R. K. (1938). Social structure and anomie. *American Sociological Review*, 3(5), 672-682.
- Messent, P. R. (1983). Social facilitation of contact with other people by pet dogs. In A. H. Katcher & A. M. Beck (Eds.), *New perspectives on our lives with companion animals* (pp. 37-46). Philadelphia, Pennsylvania: University of Pennsylvania Press.
- Miklósi, Á., Kubinyi, E., Topál, J., Gácsi, M., Virányi, Z., & Csányi, V. (2003). A simple reason for a big difference: wolves do not look back at humans, but dogs do. *Current Biology*, 13(9), 763-766.
- Miklósi, Á., & Soproni, K. (2006). A comparative analysis of animals' understanding of the human pointing gesture. *Animal Cognition*, 9(2), 81-93.
- Miles, M. B. & Huberman, M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, California: Sage.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, California: Sage.
- Miller, P., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing /antisocial behavior. *Psychological Bulletin*, 103(3), 324-344.
- Miller, T. (2013, 16 April 2013). 'Wonder pug' sniffs out owner's breast cancer. *New York Daily News*. Retrieved from <http://www.nydailynews.com/life-style/health/pug-sniffs-owner-breast-cancer-article-1.1318163>
- Ministry of Justice UK. (2010). *Breaking the cycle: Effective punishment, rehabilitation and sentencing of offenders*. Retrieved from <http://webarchive.nationalarchives.gov.uk/20120119200607/http://www.justice.gov.uk/consultations/docs/breaking-the-cycle.pdf>
- Minke, L. K. (in press). Normalization, social bonding and emotional support - a dog's effect within a prison workshop. *Anthrozoös*.
- Minton, C. A., Perez, P. R., & Miller, K. (2015). Voices from behind prison: The impact of training service dogs on women in prison. *Society & Animals*, 23, 484-501.
- Mischkowitz, R. (1994). Desistance from a delinquent way of life? In E. Weitekamp & H.-J. Kerner (Eds.), *Cross-national longitudinal research on human development and criminal behavior* (pp. 303-327). Netherlands: Springer.
- Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: a developmental taxonomy. *Psychological review*, 100(4), 674-701.
- Moneymaker, J., & Strimple, E. O. (1991). Animals and inmates. *Journal of Offender Rehabilitation*, 16(3-4), 133-152.

- Montagne, B., van Honk, J., Kessels, R. P., Frigerio, E., Burt, M., van Zandvoort, M. J., Perrett, D. I., & de Haan, E. H. (2005). Reduced efficiency in recognising fear in subjects scoring high on psychopathic personality characteristics. *Personality and Individual Differences*, 38(1), 5-11.
- Morey, D. F. (1994). The early evolution of the domestic dog. *American Scientist*, 82(4), 336-347.
- Morey, D. F. (2006). Burying key evidence: The social bond between dogs and people. *Journal of Archaeological Science*, 33(2), 158-175.
- Morey, D. F. (2010). *Dogs: Domestication and the development of a social bond*. New York: Cambridge University Press.
- Morgan, D. L. (1988). *Focus groups as qualitative research*. Newbury Park, California: Sage.
- Morgan, R., Flora, D., Kroner, D., Mills, J., Varghese, F., & Stefan, J. (2012). Treating offenders with mental illness: A research synthesis. *Law and Human Behavior*, 36(1), 37-50.
- Moriarty, N., Stough, C., Tidmarsh, P., Eger, D., & Dennison, S. (2001). Deficits in emotional intelligence underlying adolescent sex offending. *Journal of Adolescents*, 24(6), 743-751.
- Morizot, J., & Le Blanc, M. (2007). Behavioral, self, and social control predictors of desistance from crime a test of launch and contemporaneous effect models. *Journal of Contemporary Criminal Justice*, 23(1), 50-71.
- Morris, H. (1968). Persons and punishment. *The Monist*, 52(4), 475-501.
- Morris, P. H., Doe, C., & Godsell, Emma. (2008). Secondary emotions in non-primate species? Behavioural reports and subjective claims by animal owners. *Cognition and emotion*, 22(1), 3-20.
- Mulcahy, C. (2011). *Companions on the inside: Pet ownership and the introduction of a prison dog program at darling downs correctional centre*. (Master of Philosophy), University of Queensland, Brisbane, Australia.
- Murphy, J. G. (1973). Marxism and retribution. *Philosophy and Public Affairs*, 2(3), 217-243.
- Nagasawa, M., Kikusui, T., Onaka, T., & Ohta, M. (2009). Dog's gaze at its owner increases owner's urinary oxytocin during social interaction. *Hormones and Behavior*, 55(3), 434-441.
- Nepps, P., Stewart, C., & Bruckno, S. (2014). Animal-assisted activity: Effects of a complementary intervention program on psychological and physiological variables. *Journal of Evidence-Based Complementary and Alternative Medicine*, 19(3), 211-215.
- Newlin, R. B. (2003). Paws for reading: An innovative program uses dogs to help kids read better. *School Library Journal*, 49(6), 43.
- Nicholls, S. (2016, June 16 2016). NSW Budget 2016: \$3.8 billion for new jail capacity to cover surge in prison population *Sydney Morning Herald*. Retrieved from <http://www.smh.com.au/nsw/nsw-budget-2016-38-billion-for-new-jail-capacity-to-cover-surge-in-prison-population-20160616-gpkhd5.html>
- O'Toole, S. (2006). *The history of Australian corrections*. Sydney, NSW: UNSW Press.
- O'Connor, M., O'Connor, C., & Walsh, C. (2008). A dog's detection of low blood sugar: A case report. *Irish Journal of Medical Science*, 177(2), 155-157.

- Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology*, 7(4), 177-182.
- Odendaal, J. S. (2000). Animal-assisted therapy - magic or medicine? *Journal of Psychosomatic Research*, 49(4), 275-280.
- Odendaal, J. S., & Meintjes, R. A. (2003). Neurophysiological correlates of affiliative behaviour between humans and dogs. *The Veterinary Journal*, 165(3), 296-301.
- Ogata, N., Kikusui, T., Takeuchi, Y., & Mori, Y. (2006). Objective measurement of fear-associated learning in dogs. *Journal of Veterinary Behavior Clinical Applications and Research*, 1(2), 55-61.
- Ortiz, R., & Liporace, J. (2005). Seizure-alert dogs: Observations from an inpatient video/EEG unit. *Epilepsy & Behavior*, 6(4), 620-622.
- Osgood, D. W., & Lee, H. (1993). Leisure activities, age, and adult roles across the lifespan. *Society and Leisure*, 16(1), 181-208.
- Owen, T., & Fox, S. (2011). Experiences of shame and empathy in violent and non-violent young offenders. *Journal of Forensic Psychiatry and Psychology*, 22(4), 551-563.
- Oxley, L. (2014, 15 Dec 2014). 'Ted the dog was scared of everything at first - then he sniffed out I had cancer'. *Gazette Live*. Retrieved from <http://www.gazettelive.co.uk/news/teesside-news/ted-dog-scared-everything-first-8287258>
- Packer, G., Best, D., Day, E., & Wood, K. (2009). Criminal thinking and self control among drug users in court mandated treatment. *Criminology and Criminal Justice*, 9(1), 93-110.
- Patenaude, A. L., (2004). 'No promises but I'm willing to listen and tell what I hear': Conducting qualitative research among prison inmates and staff. *The Prison Journal*, 84(4), 69S-91S
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (3<sup>rd</sup> ed.). Thousand Oaks, California: Sage.
- Paxton, D. W. (2000). A case for a naturalistic perspective. *Anthrozoös*, 13(1), 5-8.
- Payne, J. (2007). Recidivism in Australia: Findings and future research. *Research and Public Policy Series*, 80, Canberra, ACT: Australian Institute of Criminology.
- Pearson, F., Lipton, D., Cleland, C., & Yee, D. (2002). The effects of behavioral/cognitive-behavioral programs on recidivism. *Crime & Delinquency*, 48(3), 476-496.
- Pell, M. (Producer). (2016, November 20, 20 November 2016). *Weekend Sunrise*. [Television Broadcast]. Sydney, Australia: Seven Network.
- Petersilia, J. (2000). *When prisoners return to the community*. Retrieved from <http://www.nationaltasc.org/wp-content/uploads/2012/11/When-Prisoners-Return-to-the-Community-Political-Economic-and-Social-Consequences-NIJ.pdf>
- Petersilia, J. (2003). *When prisoners come home: Parole and prisoner reentry*. Oxford, England: Oxford University Press.
- PetRescue. (2016). *Rescue dogs for diggers: Saving lives in every way imaginable*. Retrieved from <https://www.petrescue.com.au/library/articles/rescue-dogs-for-diggers>
- Pezzin, L. E. (1995). Earnings prospects, matching effects, and the decision to terminate a criminal career. *Journal of Quantitative Criminology*, 11(1), 29-50.
- Pickel, D., Manucy, G. P., Walker, D. B., Hall, S. B., & Walker, J. C. (2004). Evidence for canine olfactory detection of melanoma. *Applied Animal Behaviour Science*, 89(1), 107-116.

- Pollock, J. M. (2014). The rationale for imprisonment. In A. G. Blackburn, S. K. Fowler, & J. M. Pollock (Eds.), *Prisons: Today and tomorrow* (pp. 3-20). Burlington, Massachusetts: Jones & Bartlett Learning.
- Pongrácz, P., Molnár, C., Miklósi, A., & Csányi, V. (2005). Human listeners are able to classify dog (*Canis familiaris*) barks recorded in different situations. *Journal of Comparative Psychology*, *119*(2), 136-144.
- Pratt, J. (2005). *Punishment and civilization: Penal tolerance and intolerance in modern society*. London, England: Sage.
- Predergast, M. L., Hall, E. A., Wexler, H. K., Melnick, G., & Cao, Y. (2004). Amity prison-based community therapeutic community: 5-year outcomes. *The Prison Journal*, *84*(1), 36-60.
- Preston, S. D., & De Waal, F. B. (2002). Empathy: Its ultimate and proximate bases. *Behavioral and brain sciences*, *25*(01), 1-20.
- Productivity Commission. (2017). Corrective Services. *Report on Government Services 2017*. Retrieved from <http://www.pc.gov.au/research/ongoing/report-on-government-services/2017/justice/corrective-services/rogs-2017-volume-c-chapter8.pdf>
- Przybylski, R. (2008). *What works: Effective recidivism reduction and risk-focused prevention programs*. Retrieved from <https://cdpsdocs.state.co.us/ccjj/Resources/Ref/WhatWorks2008.pdf>
- Qualter, P., Ireland, J., & Gardner, K. (2010). Exploratory and confirmatory factor analysis of the Schutte Self-Report Emotional Intelligence Scale (SSREI) in a sample of male offenders. *The British Journal of Forensic Practice*, *12*(2), 43-51.
- Queensland Corrective Services. (2008). *Corrections News October 2008*. Retrieved from [http://www.correctiveservices.qld.gov.au/Publications/Corrections\\_News/2008/October/CN\\_Oct08\\_pp10-12.pdf](http://www.correctiveservices.qld.gov.au/Publications/Corrections_News/2008/October/CN_Oct08_pp10-12.pdf)
- Queensland Corrective Services. (2009). *Corrections news March 2009*. Retrieved from [http://www.correctiveservices.qld.gov.au/Publications/Corrections\\_News/2009/March/CN\\_mar09\\_pp7.pdf](http://www.correctiveservices.qld.gov.au/Publications/Corrections_News/2009/March/CN_mar09_pp7.pdf).
- Queensland Corrective Services. (2011). *Second chance for pets and prisoners at BWCC*. Retrieved from [http://www.correctiveservices.qld.gov.au/Publications/Corrections\\_News/online/stories/pdfs/20110420\\_CN\\_Apr\\_QCS\\_second\\_chance\\_program.pdf](http://www.correctiveservices.qld.gov.au/Publications/Corrections_News/online/stories/pdfs/20110420_CN_Apr_QCS_second_chance_program.pdf)
- Queensland Corrective Services. (2015). *Our animal program partnerships*. Retrieved from <https://news.correctiveservices.qld.gov.au/2016/10/28/our-animal-program-partnerships/>
- Queensland Corrective Services (2017). *Custodial Operations*. Retrieved from [http://www.correctiveservices.qld.gov.au/About\\_Us/The\\_Department/Custodial\\_Corrections/index.shtml](http://www.correctiveservices.qld.gov.au/About_Us/The_Department/Custodial_Corrections/index.shtml)
- Queensland Government. (2008). *First 'pups in prison' graduates to help disabled: Spence* [Press release]. Retrieved from <http://statements.qld.gov.au/Statement/Id/57777>
- Quetelet, A. (1984). *Research on the propensity for crime at different ages* (S. Sylvester, Trans.). Cincinnati, Ohio: Anderson.
- Ratey, J. J. (2002). *A user's guide to the brain: Perception, attention, and the four theaters of the brain*. New York: First Vintage Books.
- Recio, G., Schacht, A., & Sommer, W. (2014). Recognizing dynamic facial expressions of emotion: Specificity and intensity effects in event-related brain potentials. *Biological Psychology*, *96*, 111-125.

- Richardson-Taylor, K., & Blanchette, K. (2001). *Results of an evaluation of the Pawsitive Directions Canine program at Nova institution for women*. Retrieved from [http://www.csc-scc.gc.ca/research/092/r108\\_e.pdf](http://www.csc-scc.gc.ca/research/092/r108_e.pdf)
- Roberts, L., & Indermaur, D. (2008). *The Ethics of Research with Prisoners*. *Current Issues in Criminal Justice*, 19(3), 309-326.
- Robinson, L., Spencer, M. D., Thomson, L. D., Sprengelmeyer, R., Owners, D. G., Stanfield, A. C., Hall, J., Baig, B. J., MacIntyre, D. J., McKechnie, A., & Johnstone, E. C. (2012). Facial emotion recognition in Scottish prisoners. *International Journal of Law and Psychiatry*, 35, 57-61.
- Ross, R. R., & Fabiano, E. A., (1985). *Time to think: A cognitive model of delinquency prevention and offender rehabilitation*. Johnson City, Tennessee: Institute of Social Sciences and Arts.
- Ross, T., & Fontao, M. (2007). Self-regulation in violent and non-violent offenders: A preliminary report. *Criminal Behaviour and Mental Health*, 17(3), 171-178.
- Rothman, D. J. (2011). *The discovery of the asylum: Social order and disorder in the new republic*. New Brunswick, New Jersey: Aldine Transaction.
- Rotman, E. (1994). Beyond punishment. In A. Duff & D. Garland (Eds.), *A reader on punishment* (pp. 281-305). Oxford, England: Oxford University Press.
- Rotter, M., McQuiston, H., Broner, N., Steinbacher, M., & Glazer, W. (2005). The impact of “incarceration culture” on re-entry for adults with mental illness: A training and group-treatment model. *Psychiatric Services*, 56(3), 265-267.
- RSPCA. (2011). *Cell dogs: Ken Francis*. Retrieved from <http://content.yudu.com/Library/A1uje7/RSPCANSW20102011Annu/resources/28.htm>
- RSPCA Queensland. *Pets in crisis program*. Retrieved from <https://www.rspcaqld.org.au/what-we-do/save-animals/Pets%20in%20Crisis%20Program>
- Rubinsztein-Dunlop, S. (2014). *Australia's prison system overcrowded to bursting point with more than 33, 000 people in jail*. Retrieved from <http://www.abc.net.au/news/2014-07-02/austrian-prison-overcrowding-female-populations-growing/5567610>
- Rumgay, J. (2004). Scripts for safer survival: Pathways out of female crime. *The Howard Journal of Criminal Justice*, 43(4), 405-419.
- Rutter, M. (1999). Resilience concepts and findings: Implications for family therapy. *Journal of Family Therapy*, 21(2), 119-144.
- Sala, G. A. (1862). A visit to Bethlehem hospital. *The Argus*, p. 7. Retrieved from <http://trove.nla.gov.au/newspaper/article/5719308>
- Salovey, P., & Mayer, J. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9, 185-211.
- Sampson, R. J., & Laub, J. H. (1990). Crime and deviance over the life course: The salience of adult social bonds. *American Sociological Review*, 55(5), 609-627.
- Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Cambridge, Massachusetts: Harvard University Press.
- Sampson, R. J., & Laub, J. H. (2003). Life-course desisters? Trajectories of crime among delinquent boys followed to age 70. *Criminology*, 41(3), 555-592.
- Sapouna, M., Bisset, C., Conlong, A.-M., & Matthews, B. (2015). *What works to reduce reoffending: A summary of the evidence*. Retrieved from <http://www.gov.scot/Resource/0047/00476574.pdf>

- Sapsford, R. (1983). *Life sentence prisoners: Reaction, response and change*. Milton Keynes, England: Open University Press.
- Schirmer, A., Seow, C. S., & Penney, T. (2013). Humans process dog and human facial affect in similar ways. *PLoS one*, 8(9), e74591.  
Doi:<http://dx.doi.org/10.1371/journal.pone.0074591>
- Schleidt, W. M., & Shalter, M. D. (2003). Co-evolution of humans and canids. *Evolution and Cognition*, 9(1), 57-72.
- Schöberl, I., Wedl, M., Brauer, B., Day, J., Möstl, E., & Kotschal, K. (2012). Effects of owner-dog relationship and owner personality on cortisol modulation in human-dog dyads. *Anthrozoös*, 25(2), 199-214.
- Schultz, E. E. (2006). *Furry therapists: The advantages and disadvantages of implementing animal therapy in schools*. (Master of Science), University of Wisconsin-Stout. Retrieved from <http://www2.uwstout.edu/content/lib/thesis/2006/2006schultze.pdf>
- SERCO. (2012). *Acacia prisoners make amends* [Press release]. Retrieved from <http://www.serco-ap.com.au/news-media/media-releases/acacia-prisoners-make-amends/>
- Serpell, J. (1991). Beneficial effects of pet ownership on some aspects of human health and behaviour. *Journal of Royal Society of Medicine*, 84(12), 717-720.
- Serpell, J. (1996). Evidence for an association between pet behaviour and owner attachment levels. *Applied Animal Behaviour Science*, 47(1-2), 49-60.
- Shapland, J., Bottoms, A., Farrall, S., McNeill, F., Priede, C., & Robinson, G. (2012). *The quality of probation supervision - a literature review*. Retrieved from Centre for Criminological Research, University of Sheffield: <http://psychocriminologie.free.fr/wp-content/uploads/QualityofProbationSupervision.pdf>
- Shelden, R. G. (2001). *Controlling the dangerous classes : A critical introduction to the history of criminal justice*. Boston, Massachusetts: Allyn and Bacon.
- Shiota, M. N., Campos, B., Keltner, D., & Hertenstein, M. J. (2004). *Positive Emotion and the Regulation of Interpersonal Relationships*. Mahwah, New Jersey: Lawrence Erlbaum Association Publishers.
- Shover, N. (1983). The later stages of ordinary property offender careers. *Social Problems*, 31(2), 208-218.
- Shover, N., & Thompson, C. Y. (1992). Age, differential expectations and crime desistance. *Criminology*, 30(1), 89-104.
- Smart Pups Assistance Dogs. (2016). *About us*. Retrieved from <http://www.smartpups.org.au/about.html>
- Smith, G. (2013). *Prison dogs bring diggers' trauma to heel* [Press release]. Retrieved from [http://www.lawlink.nsw.gov.au/lawlink/Corporate/ll\\_corporate.nsf/vwFiles/13062013\\_Dogs\\_for\\_Diggers.pdf/\\$file/13062013\\_Dogs\\_for\\_Diggers.pdf](http://www.lawlink.nsw.gov.au/lawlink/Corporate/ll_corporate.nsf/vwFiles/13062013_Dogs_for_Diggers.pdf/$file/13062013_Dogs_for_Diggers.pdf)
- Smith, P., Coggin, C., & Gendreau, P. (2002). *The effects of prison sentences and intermediate sanctions on recidivism: General effects and individual differences*. Ottawa, Ontario Retrieved from <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/ffcts-prsn-sntnscs/ffcts-prsn-sntnscs-eng.pdf>.
- Soproni, K., Miklósi, Á., Topál, J., & Csányi, V. (2001). Comprehension of human communicative signs in pet dogs (*Canis familiaris*). *Journal of Comparative Psychology*, 115(2), 122-126.

- State Government of Victoria. (2016). *Ravenhall prison project*. Retrieved from <http://www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Ravenhall-Prison-project>
- Steels, B., & Goulding, D. (2009). *Predator or prey? An exploration of the impact and incidence of sexual assault in West Australian prisons*. Retrieved from [https://www.murdoch.edu.au/\\_document/News/prison-sexual-assaults.pdf](https://www.murdoch.edu.au/_document/News/prison-sexual-assaults.pdf)
- Stephens, O., A., & Nel, N. M. (2014). Recidivism and emotional intelligence of male recidivists in Lagos State, Nigeria. *Psychology*, 5(2), 115-124.
- Stetina, B. U., Gegenhuber, B., McElhenny, J., Handlos, U., Kuchta, B., Gindl, B., Werdenich, W., & Kryspin-Exner, I. (2009). Health promotion with the animal assisted training (MTI) for drug offenders. *Psychology and Health*, 24(1), 376-377.
- Stetina, B. U., Kuchta, B., Gindl, B., Maman, T. L., Handlos, U., Werdenich, W., & Kryspin-Exner, I. (2009). Changes in emotional competences of drug offenders during dog-assisted group training (MTI). *Journal of Veterinary Behavior Clinical Applications and Research*, 4(2), 99-100.
- Stetina, B. U., McElhenny, J., Burger, E., Turner, K., & Handlos, U. (2010, June). *Enhancing self-concept and social skills of drug addicted criminal offenders during a dog-assisted group training (MTI)*. Paper presented at the International Society for Anthrozoology (ISAZ), Stockholm, Sweden.
- Stetina, B. U., McElhenny, J., Klee, R., Handlos, U., Gegenhuber, B., Moser-Riebniger, A., & Werdenich, W. (2010, July). *Substance abuse treatment in prison vs rehabilitation center: Effects of a dog-assisted group training (MTI) on emotion regulation and emotional self-control in different institutions*. Paper presented at the 12th International Association of Human-Animal Interaction Organizations, Stockholm, Sweden.
- Stetina, B. U., Turner, W. G., Burger, E., & Kothgassner, O. D. (2011). Learning emotion recognition from canines? Two for the road. *Journal of Veterinary Behavior Clinical Applications and Research*, 6(2), 108-114.
- Stocks, A. (2002). Can dogs help patients with hypoglycaemia? *Diabetologia*, 45, A79.
- Stohr, M. K., & Walsh, A. (2011). *Corrections: The essentials*. Los Angeles, California: Sage.
- Strimble, E. O. (2003). A history of prison inmate-animal interaction programs. *American Behavioral Scientist*, 47(1), 70-78.
- Strong, V., Brown, S. W., & Walker, R. (1999). Seizure-alert dogs—fact or fiction? *Seizure*, 8(1), 62-65.
- Strüber, D., Lück, M., & Roth, G. (2008). Sex, aggression and impulse control: An integrative account. *Neurocase*, 14(1), 93-121.
- Sutherland, E. H. (1934). *Principles of criminology*. Philadelphia, Pennsylvania: J.B. Lippincott & Co.
- Sykes, G. M. (1958). *The society of captives: A study of a maximum security prison*. Princeton, New Jersey: Princeton University Press.
- Taft, R. (1977). Coping with unfamiliar cultures. In N. Warren (Ed.), *Studies in cross-cultural psychology* (Vol. 1, pp. 121-153). London, England: Academic Press.
- Tannenbaum, F. (1938). *Crime and the community*. New York: Columbia University Press.
- Tauveron, I., Delcourt, I., Desbiez, F., Somda, F., & Thiéblot, P. (2006). Canine detection of hypoglycaemic episodes whilst driving. *Diabetic Medicine*, 23(3), 335-335.



- Taylor-Powell, E., & Henert, E. (2008). Developing a logic model: Teaching and training guide. Retrieved from [https://peerta.acf.hhs.gov/sites/default/files/public/uploaded\\_files/Logic%20Model%20Guide.pdf](https://peerta.acf.hhs.gov/sites/default/files/public/uploaded_files/Logic%20Model%20Guide.pdf)
- Taylor, K. (2016). *Pups in prison* (Vol. 5). Queensland, Australia: SmartPress.
- Ten, C. L. (1987). *Crime, guilt, and punishment*. Oxford: Clarendon Press.
- The World Bank. (2016). *Population, total*. Retrieved from [http://data.worldbank.org/indicator/SP.POP.TOTL?end=2015&name\\_desc=true&start=2005](http://data.worldbank.org/indicator/SP.POP.TOTL?end=2015&name_desc=true&start=2005)
- Thorndike, E. (1920). Intelligence and its uses. *Harper's Magazine*, 227-235.
- Thorndike, R., & Stern, S. (1937). An evaluation of the attempts to measure social intelligence. *Psychological Bulletin*, 34(5), 275-284.
- Toch, H., & Adams, K. (2002). *Acting out: Maladaptive behavior in confinement*. Washington, DC: American Psychological Association.
- Travis, J. (2005). *But they all come back: Facing the challenges of prisoner reentry*. Washington: Urban Institute Press.
- Trevena, J., & Weatherburn, D. (2015). Does the first prison sentence reduce the risk of further offending? *Crime and Justice Bulletin* (Vol. 187): NSW Bureau of Crime Statistics and Research. Retrieved from <http://www.bocsar.nsw.gov.au/Documents/CJB/Report-2015-Does-the-first-prison-sentence-reduce-the-risk-of-further-offending-cjb187.pdf>
- Turner, K., Burger, E., Stetina, B. U., Scherrer, B., & Ursula, H. (2010, July). *Dog-assisted group training (MTI) with mentally disordered prisoners: enhancing social interactions*. Paper presented at the 12th International Association of Human-Animal Interaction Organizations, Stockholm, Sweden.
- Turner, K., Stetina, B. U., Burger, E., Glenk, L. M., Kothgassner, O. D., & Handlos, U. (2011). Dog-assisted intervention (MTI) with mentally disordered prisoners: Enhancing empathy - a pilot study. *Journal of Veterinary Behaviour Clinical Applications and Research*, 6(1), 97-97.
- Turner, W. G. (2007). Experiences of offenders in a prison canine program. *Federal Probation: A Journal of Correctional Philosophy and Practice*, 71(1), 38-43.
- Udell, M. A. R., & Wynne, C. D. L. (2008). A review of domestic dogs' (Canis Familiaris) human-like behaviors: Or why behavior analysts should stop worrying and love their dogs. *Journal of the Experimental Analysis of Behavior*, 89(2), 247-261.
- Uggen, C. (2000). Work as a turning point in the life course of criminals: A duration model of age, employment, and recidivism. *American Sociological Review*, 65(4), 529-546.
- Uggen, C., & Kruttschnitt, C. (1998). Crime in the breaking: Gender differences in desistance. *Law & Society Review*, 32(2), 339-366.
- United Nations. (2012). *Introductory handbook on the prevention of recidivism and the social reintegration of offenders*. Retrieved from [http://www.unodc.org/documents/justice-and-prison-reform/crimeprevention/Introductory\\_Handbook\\_on\\_the\\_Prevention\\_of\\_Recidivism\\_and\\_the\\_Social\\_Reintegration\\_of\\_Offenders.pdf](http://www.unodc.org/documents/justice-and-prison-reform/crimeprevention/Introductory_Handbook_on_the_Prevention_of_Recidivism_and_the_Social_Reintegration_of_Offenders.pdf)
- Urquiza-Hass, E. G., & Kotrschal, K. (2015). The mind behind anthropomorphic thinking: Attribution of mental states to other species. *Animal Behaviour*, 109, 167-176.
- van Wormer, J., Kigerl, A., & Hamilton, Z. (2015). *Digging deeper: Exploring the value of prison-based dog handler programs*. Retrieved from <http://sustainabilityinprisons.org/wp-content/uploads/2015/04/WADOC-Dog-Program-Manuscript-for-WADOC.pdf>

- Vanderbilt-Adriance, E., & Shaw, D. S. (2008). Conceptualizing and re-evaluating resilience across levels of risk, time, and domains of competence. *Clinical Child and Family Psychology Review*, 11(1-2), 30-58.
- Victorian Auditor-General. (2012). *Prison capacity report*. Retrieved from <http://www.audit.vic.gov.au/publications/20121128-Prisons/20121128-Prisons.pdf>
- Victorian Ombudsman. (2014). *Investigation into deaths and harm in custody* Retrieved from <https://www.ombudsman.vic.gov.au/getattachment/2998b6e6-491a-4dfe-b081-9d86fe4d4921//publications/parliamentary-reports/investigation-into-deaths-and-harm-in-custody.aspx>
- Victorian Ombudsman. (2015). *Investigation into the rehabilitation and reintegration of prisoners in Victoria*. Retrieved from <https://www.ombudsman.vic.gov.au/getattachment/280f4a06-5927-4221-bf64-d884ba6abaf9>
- Vieraitis, L. M., Kovandzic, T. V., & Marvell, T. B. (2007). The criminogenic effects of imprisonment: Evidence from state panel data, 1974–2002. *Criminology & Public Policy*, 6(3), 589-622.
- Vilà, C., Savolainen, P., Maldonado, J. E., Amorim, I. R., Rice, J. E., Honeycutt, R. L., Crandall, K. A., Lundeberg, J., & Wayne, R. K. (1997). Multiple and ancient origins of the domestic dog. *Science*, 276(5319), 1687-1689.
- Vinson, T. (2015). *Dropping off the edge*. Retrieved from <http://www.dote.org.au/wordpress/wp-content/uploads/DOTE-Summary-Report-A4-for-email7.pdf>
- Visser, B., Bay, D., Cook, G., & Myburg, J. (2010). Psychopathic and antisocial, but not emotionally intelligent. *Personality and Individual Differences*, 48(5), 644-648.
- von Hirsch, A. (1994). Censure and proportionality. In A. Duff & D. Garland (Eds.), *A reader on punishment* (pp. 112-132). Oxford: Oxford University Press.
- Walker, D. W., & Leister, C. (1994). Recognition of facial affect cues by adolescents with emotional and behavioral disorders. *Behavioral Disorders*, 19(4), 269-276.
- Walsh, P. G., & Mertin, P. G. (1994). The training of pets as therapy dogs in a women's prison: A pilot study. *Anthrozoös*, 7(2), 124-128.
- Wan, M., Bolger, N., & Champagne, F. A. (2012). Human perception of fear in dogs varies according to experience with dogs. *PLoS one*, 7(12), e51775. doi:<http://dx.doi.org/10.1371/journal.pone.0051775>
- Ward, C. W., & Wilkinson, A. E. (2006). *Conducting meaningful interpretation: A field guide for success*. Golden, Colorado: Fulcrum Publishing.
- Warr, M. (1998). Life-course transitions and desistance from crime. *Criminology*, 36(2), 183-216.
- Warren, R. K. (2007). *Evidence-based practice to reduce recidivism: Implications for state judiciaries*. Retrieved from <https://www.wicourts.gov/courts/programs/docs/cjjudicialpaperfinal.pdf>
- Webb, W. S. (2001). *Indian Knoll*. Knoxville, Tennessee: University of Tennessee Press.
- Weiss, C. H. (1997). *Evaluation* (2nd ed.). Upper Saddle River, New Jersey: Prentice-Hall.
- Wells, D. L. (2007). Domestic dogs and human health: An overview. *British Journal of Health Psychology*, 12(1), 145-156.
- Wells, D. L. (2012). Dogs as a diagnostic tool for ill health in humans. *Alternative Therapies in Health & Medicine*, 18(2), 12-17.

- Wells, D. L., Lawson, S. W., & Siriwardena, A. N. (2008). Canine responses to hypoglycemia in patients with type 1 diabetes. *The Journal of Alternative and Complementary Medicine*, 14(10), 1235-1241.
- Wexler, H. K., Melnick, G., Lowe, L., & Peters, J. (1999). Three-year reincarceration outcomes for in-prison therapeutic community and aftercare in California. *The Prison Journal*, 79(3), 321-336.
- Williams, H., & Pembroke, A. (1989). Sniffer dogs in the melanoma clinic? *The Lancet*, 333(8640), 734.
- Willis, C. M., Church, S. M., Guest, C. M., Cook, W. A., McCarthy, N., Bransbury, A. J., Church, M. R. T., & Church, J. C. T. (2004). Olfactory detection of human bladder cancer by dogs: Proof of principle study. *The BMJ*, 329(7468), 712-714.
- Wilson, D., Bouffard, L., & Mackenzie, D. (2005). A quantitative review of structured group-orientated cognitive-behavioral programs for offenders. *Criminal Justice and Behaviour*, 32(2), 172-204.
- Wilson, D. E., & Reeder, D. M. (2005). *Mammal species of the world: A taxonomic and geographic reference* (3rd ed.). Baltimore, Maryland: The John Hopkins University Press.
- Wilson, E. O. (1984). *Biophilia*. Cambridge, Massachusetts: Harvard University Press.
- WK Kellogg Foundation. (2004). *Logic model development guide*. Retrieved from <https://www.wkkf.org/~media/pdfs/logicmodel.pdf>
- Wolf, E. S. (1988). *Treating the self: Elements of clinical self psychology*. New York: The Guildford Press.
- Wolf, J. (2008). Self-Administered Questionnaire. In P. J. Lavrakas (Ed.), *Encyclopedia of survey research methods*. Thousand Oaks, California: Sage.
- Wollrab, T. (1998). Human-animal bond issues. *Journal of the American Veterinary Medical Association*, 212(11), 1675.
- Woodward, R. (2003). *Families of prisoners: Literature review on issues and difficulties*. Canberra, ACT: Department of Family and Community Services.
- World Health Organisation. (2017). *Mental health: A state of well-being*. Retrieved from [http://www.who.int/features/factfiles/mental\\_health/en/](http://www.who.int/features/factfiles/mental_health/en/)
- Worrall, A. (2014). *Punishment in the community: The future of criminal justice*. New York: Routledge.

## **APPENDICES**

## Appendix A: Survey for staff from animal welfare or training organisations (Study 1)



**Lauren Humby**  
**Criminology**  
**School of Behavioural, Cognitive and Social Sciences**  
**University of New England**  
**Armidale NSW 2351**  
**Phone: (02) 67732116**  
**Fax (02) 6773 3748**  
**Email: [lhumby@myune.edu.au](mailto:lhumby@myune.edu.au)**

### **Survey of Prison-based Dog Programs in Australia**

My name is Lauren Humby and I am seeking your assistance with a study of prison-based dog programs as part of my PhD in the School of Behavioural, Cognitive, and Social Sciences at the University of New England. My supervisors are Dr Elaine Barclay, Dr Wendy Brown, and Dr Joanne Righetti.

#### **Aims of the Research**

The project aims to identify the current nature of prison-based dog programs in Australia. To achieve this, staff from department of corrections in each state and territory are being surveyed to gather information on the program characteristics, such as the name of the program, year implemented, number of participants, eligibility criteria etc. In addition, external facilitators of prison-based dog programs are also being surveyed to examine the types of programs, the aims of each program and how successful the programs are at reaching these goals. This sample will include staff from organisations such as the RSPCA, Assistance Dogs Australia, and Greyhound Racing.

#### **Survey**

You are invited to complete the one-off survey (attached). The survey will take approximately 20 minutes of your time. Once completed, please return by email to [lhumby@myune.edu.au](mailto:lhumby@myune.edu.au), or complete a hard copy that can be faxed to (02) 6773 3748 or mailed to:

Lauren Humby  
Criminology  
School of Behavioural, Cognitive and Social Sciences  
University of New England  
Armidale NSW 2351

#### **Confidentiality**

Any information or personal details gathered in the course of the study will remain confidential. No individual, organisation or agency will be identified by name in any publication of the results.

#### **Voluntary Participation**

Please understand that your involvement in this study is voluntary and I respect your right to withdraw from the study at any time. If you choose to assist in this research you will be providing invaluable information and your participation will be very much appreciated.

### **Questions**

The questions are not of a sensitive nature: rather they are general and aimed at gathering information on programs based upon your knowledge of, or experience with, prison-based dog training programs.

### **Use of Information**

I will use the information gathered as part of my doctoral thesis, which I expect to complete in February 2017. Information may also be used in a general way in journal articles and conference presentations before and after this date. At all times, I will safeguard the identity of participants and their agencies by presenting the information in a way that is unidentifiable.

### **Storage of Information**

The data collected will be stored in a locked cabinet at my office at the University of New England's School of Behavioural, Cognitive and Social Sciences. Any electronic data will be kept on a password protected computer in the same school. Only the research team will have access to the data.

### **Disposal of Information**

All the data collected in this research will be kept for a minimum of five years after successful submission of my thesis, after which it will be disposed of by deleting relevant computer files, and destroying or shredding hardcopy materials.

### **Approval**

This project has been approved by the Human Research Ethics Committee of the University of New England. Approval No. HE15-035, valid until 1 April, 2016.

### **Contact Details**

Feel free to contact me with any questions about this research by email at [lhumbby@une.edu.au](mailto:lhumbby@une.edu.au) or 02 6773 2116. You may also contact my supervisors:

Dr Elaine Barclay at [ebarclay@une.edu.au](mailto:ebarclay@une.edu.au) or (02) 6773 2014

Dr Wendy Brown at [wbrown@une.edu.au](mailto:wbrown@une.edu.au) or (02) 6773 5125

Dr Joanne Righetti at [drjoanne@petproblemsolved.com.au](mailto:drjoanne@petproblemsolved.com.au) or 0414 561 699

### **Complaints**

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at:

Research Services

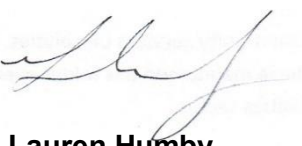
University of New England

Armidale, NSW 2351

Tel: (02) 6773 3449 Fax: (02) 6773 3543

Email: [ethics@une.edu.au](mailto:ethics@une.edu.au)

Thank you for considering this request and I look forward to further contact with you. Kind regards,



**Lauren Humby**

# Survey of Prison-based Dog Programs in Australia

## Program Basics

1. Name of program: \_\_\_\_\_
2. Facility where program is located: \_\_\_\_\_
3. Year program was established: \_\_\_\_\_
4. Duration of the program: \_\_\_\_\_
5. How often is the program offered: \_\_\_\_\_

## Program Design

6. Which of the following most accurately describes this program. Please tick all that apply.

<input type="checkbox"/> Community service	<i>Inmate trainers train and care for dogs which are then adopted out into the community.</i>
<input type="checkbox"/> Service animal socialisation	<i>Puppies are raised and trained to become assistance dogs for people with physical or mental disabilities.</i>
<input type="checkbox"/> Visitation	<i>Companion dogs are brought to a correctional facility by humane society or not-for-profit organisations for a specified period of time.</i>
<input type="checkbox"/> Vocational	<i>Inmate trainers are trained and certified in animal grooming/handling/care. Work experience may also be involved.</i>
<input type="checkbox"/> Pet adoption	<i>Dogs are adopted and cared for by the inmates.</i>
<input type="checkbox"/> Rehabilitation	<i>Injured dogs, or female dogs and their new born puppies are cared for by the inmates until they are able to be adopted or reside in an animal shelter.</i>
<input type="checkbox"/> Other (please specify)	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>

*\* If you ticked **vocational** please go to **question 7**, otherwise continue on to **question 8***

7. What vocational qualifications are included in the program? Please tick all that apply.

- Certificate (please specify) \_\_\_\_\_
- Work Experience (please specify) \_\_\_\_\_
- Other \_\_\_\_\_

8. What are the key objectives of the program? *Please tick all that apply.*

- Inmate rehabilitation       Animal rehabilitation       Reduce reoffending  
 Inmate socialisation       Animal adoption       Employment  
 Education       Other \_\_\_\_\_

9. Is the program's success measured? *If yes, please tick all that apply.*       Yes       No

- Survey       Self-report       Interviews       Other \_\_\_\_\_

## Inmate Participants

10. How many inmates are currently participating in the program? \_\_\_\_\_

11. How many inmates have participated in the program in the past? \_\_\_\_\_

12. Does the program have a waiting list for inmates who want to participate?       Yes       No

If YES, how many are on the waiting list? \_\_\_\_\_       Don't know

13. What is the age range of participants? \_\_\_\_\_

14. What is the ratio of inmate handlers to dogs?

- One-on-one       Two inmates - one dog       Two or more dogs – one inmate handler  
 Other \_\_\_\_\_

15. How long do participants remain in the program? *Please tick all that apply.*

- \_\_\_ weeks    \_\_\_ months    \_\_\_ years       Ongoing, for the duration of the program

16. How long do participants work with a specific dog? *Please tick all that apply.*

- \_\_\_ weeks    \_\_\_ months    \_\_\_ years       Ongoing, for the duration of the program

17. Number of hours per day the participant is with their dog? \_\_\_\_\_

18. What are the duties of inmate handlers? *Please tick all that apply.*

- Food preparation       Kennel cleaning       Obedience training  
 Playing       Desensitisation       Socialisation  
 Exercise       Observation reporting       Enrichment  
 Specialised training (*please specify*) \_\_\_\_\_  
 Other \_\_\_\_\_

19. Is the dog program part of an inmate's work duties or is it an additional responsibility?

- Part of work duties  
 Additional responsibility  
 Other \_\_\_\_\_

20. Have any of the inmates participated in the program more than once? If yes, how many?



Yes \_\_\_\_\_  No  Don't know

21. What happens to inmate participants after they leave the program?

22. Does this program include a referral or link to a possible job in the community post-release?

Yes  No

23. Do you know any former inmates working with animals post-release? If yes, in what capacity?

Yes  No

## Dogs

24. Source of animals:

Local pound  RSPCA  Assistance Dogs Australia  
 Greyhound Racing  Other \_\_\_\_\_

25. How many dogs are currently participating in the program? \_\_\_\_\_

26. How many dogs have been involved in the program in the past? \_\_\_\_\_

27. Is there a waiting list for dogs who are to participate in the program?  Yes  No

28. How are dogs chosen to be part of the program? *Please tick all that apply.*

y  Injuries  Time at animal shelter  
 Likelihood of success  Breed  Age  
 Pregnancy  Other \_\_\_\_\_

29. Where does the dog stay during the **day** when they are not with their inmate handler?

Prison kennel facilities  Animal shelter  Home of prison-staff  
 Foster care  Other \_\_\_\_\_

30. Where does the dog reside at **night**?

Prison kennel facilities  Animal shelter  Home of prison-staff  
 Inmate handler's cell  Other \_\_\_\_\_

*\* If you ticked **prison kennel facilities** or **inmate handler's cell** for questions 29 or 30, please continue on to **question 31**, otherwise continue on to **question 33**.*

31. For dogs that reside in the prison full-time, do they have access to the communities outside the prison?  Yes  No

If YES, who facilitates this?

32. For dogs that reside in the prison full-time, who supervises the inmates and their dogs?

- Prison staff     No-one     Other \_\_\_\_\_

33. For dogs that reside in the prison full-time and are housed with an inmate, what is the nature of the housing?

- Single cell     Apartment-type     House-type     Other \_\_\_\_\_

34. What techniques are used to train the dogs? Please tick all that apply.

- Food-based                       Reward-based                       Clicker training  
 Physical corrections               Dog whispering                       Punishment-based  
 Other \_\_\_\_\_

35. Do the dogs have additional training before or after the program?     Yes     No

If YES, please specify

36. Have any of the dogs participated in the program more than once?     Yes     No

If YES, how many? \_\_\_\_\_     Don't know

37. How many dogs have been rehomed post-program? \_\_\_\_\_     Don't know

38. How often do the dogs visit the prison? \_\_\_\_\_

39. How long do the dogs stay each visit? \_\_\_\_\_

**Program Administrators & Trainers**

40. Who teaches the inmates to train the dogs?

- Representatives from animal welfare organisations  
 Prison staff  
 Other inmates  
 Other \_\_\_\_\_

41. How often does a representative/trainer from the organisation facilitating the program visit the prison?

- Once a day                       Once a week                       Once a fortnight

Once a month

Other \_\_\_\_\_

42. Are program trainers required to have formal training and/or certification?  Yes  No

If YES, please specify \_\_\_\_\_

43. Have there been any issues in staff selection that have been problematic in program delivery?

Yes  No

If YES, please specify

44. What are your motivations for participating in the program? Please tick all that apply.

Inmate rehabilitation

Animal rehabilitation

Career goals

Other \_\_\_\_\_

**Prison Staff**

45. What role do prison staff play in the program?

46. Do staff need to possess special qualities to participate in the program?  Yes  No

If YES, please specify

## Program Advantages and Disadvantages

47. What are the best things about the prison-based dog program you are involved in?

48. Are there any aspects of the program that could be improved?  Yes  No

*If YES, please specify and identify what would be needed to make this happen?*

## Funding

49. How is the program funded? *Please tick all that apply.*

Donations  Dog adoption fees  Government funding

Other \_\_\_\_\_

50. Approximately, how much funding does the program receive? \$\_\_\_\_\_

Daily  Weekly  Per program delivery  Annually

51. Approximately, how much funding is required to run the program? \$\_\_\_\_\_

Daily  Weekly  Per program delivery  Annually

**Other**

If you feel that I have overlooked some important issues, or wish to add further comments, please use this space to tell me about them.

Please return completed form to Lauren Humby using one of the following options:

Email: **lhumbby@myune.edu.au**

Fax: **02 6773 3748**

Post: **Lauren Humby**

**Criminology**

**School of Behavioural, Cognitive and Social Sciences**

**University of New England**

**Armidale NSW 2351**

***Thank you sincerely for your assistance with this research.***

.....  
 *YES, I would like to receive a copy of the findings*

Name \_\_\_\_\_ Email \_\_\_\_\_

Address \_\_\_\_\_

## Appendix B: Survey for Corrections Staff (Study 1)



**Lauren Humby**  
**Criminology**  
**School of Behavioural, Cognitive and Social Sciences**  
**University of New England**  
**Armidale NSW 2351**  
**Phone: (02) 67732116**  
**Fax (02) 6773 3748**  
**Email: [lhumb@myune.edu.au](mailto:lhumb@myune.edu.au)**

### **Survey of Prison-based Dog Programs in Australia**

My name is Lauren Humby and I am seeking your assistance with a study of prison-based dog programs as part of my PhD in the School of Behavioural, Cognitive and Social Sciences at the University of New England. My supervisors are Dr Elaine Barclay, Dr Wendy Brown and Dr Joanne Righetti.

#### **Aims of the Research**

The project aims to identify the current nature of prison-based dog programs in Australia. To achieve this, staff from department of corrections in each state and territory are being surveyed to gather information on the program characteristics, such as the name of the program, year implemented, number of participants, eligibility criteria etc. In addition, external facilitators of prison-based dog programs are also being surveyed to examine the types of programs, the aims of each program and how successful the programs are at reaching these goals. This sample will include staff from organisations such as the RSPCA, Assistance Dogs Australia and Greyhound Racing.

#### **Survey**

You are invited to complete the one-off survey (attached). The survey will take approximately 10 minutes of your time. Once completed, please return by email to [lhumb@myune.edu.au](mailto:lhumb@myune.edu.au), or complete a hard copy that can be faxed to (02) 6773 3748 or mailed to:

Lauren Humby  
Criminology  
School of Behavioural, Cognitive and Social Sciences  
University of New England  
Armidale NSW 2351

#### **Confidentiality**

Any information or personal details gathered in the course of the study will remain confidential. No individual, organisation or agency will be identified by name in any publication of the results.

#### **Voluntary Participation**

Please understand that your involvement in this study is voluntary and I respect your right to withdraw from the study at any time. If you choose to assist in this research you will be providing invaluable information and your participation will be very much appreciated.

### **Questions**

The questions are not of a sensitive nature: rather they are general and aimed at gathering information on programs based upon your knowledge of, or experience with, prison-based dog training programs.

### **Use of Information**

I will use the information gathered as part of my doctoral thesis, which I expect to complete in February 2017. Information may also be used in a general way in journal articles and conference presentations before and after this date. At all times, I will safeguard the identity of participants and their agencies by presenting the information in a way that is unidentifiable.

### **Storage of Information**

The data collected will be stored in a locked cabinet at my office at the University of New England's School of Behavioural, Cognitive and Social Sciences. Any electronic data will be kept on a password protected computer in the same school. Only the research team will have access.

### **Disposal of Information**

All the data collected in this research will be kept for a minimum of five years after successful submission of my thesis, after which it will be disposed of by deleting relevant computer files, and destroying or shredding hardcopy materials.

### **Approval**

This project has been approved by the Human Research Ethics Committee of the University of New England. Approval No. HE15-035, valid until 1 April, 2016.

### **Contact Details**

Feel free to contact me with any questions about this research by email at [lhumb@une.edu.au](mailto:lhumb@une.edu.au) or 02 6773 2116. You may also contact my supervisors:

Dr Elaine Barclay at [ebarclay@une.edu.au](mailto:ebarclay@une.edu.au) or (02) 6773 2014

Dr Wendy Brown at [wbrown@une.edu.au](mailto:wbrown@une.edu.au) or (02) 6773 5125

Dr Joanne Righetti at [drjoanne@petproblemsolved.com.au](mailto:drjoanne@petproblemsolved.com.au) or 0414 561 699

### **Complaints**

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at:

Research Services

University of New England

Armidale, NSW 2351

Tel: (02) 6773 3449 Fax: (02) 6773 3543

Email: [ethics@une.edu.au](mailto:ethics@une.edu.au)

Thank you for considering this request and I look forward to further contact with you.

Kind regards,



**Lauren Humby**

# Survey of Prison-based Dog Programs in Australia

To begin, I need some basic information about the dog programs offered within your facility.

1. Name of program: \_\_\_\_\_
2. Facility where program is located: \_\_\_\_\_
3. Year program was established: \_\_\_\_\_
4. How often is the program offered: \_\_\_\_\_
5. Duration of the program: \_\_\_\_\_
6. Source of animals:  
 Local pound                       Greyhound Racing                       Assistance Dogs Australia  
 RSPCA                                       Other (please specify) \_\_\_\_\_
7. Total number of inmates who have participated in the program since inception: \_\_\_\_\_
8. Total number of dogs who have participated in the program since inception: \_\_\_\_\_
9. How is the program funded? Please tick all that apply.  
 Donations                       Dog adoption fees                       Government Funding  
 Other \_\_\_\_\_
10. Does the program have a waiting list for inmates who want to participate?  Yes     No
11. How are inmates chosen to be a part of the program? Please tick all that apply.  
 Interview                       Psychological test     Security level     Crime(s) committed  
 Time until release     Other \_\_\_\_\_
12. Is the dog program part of an inmate's work duties or is it an additional responsibility?  
 Part of work duties  
 Additional responsibility  
 Other \_\_\_\_\_
13. Are there any crimes that make inmates ineligible to participate in the program?  Yes     No  
If yes, please specify \_\_\_\_\_
14. Are there any other factors that make inmates ineligible to participate?  Yes     No  
If yes, please specify \_\_\_\_\_
15. Do you look for any special qualities in your staff for participating in the program?  Yes     No



If yes, please specify \_\_\_\_\_

16. What are the best things about the prison-based dog program you are involved in?

17. Are there any aspects of the program that could be improved?  Yes  No

If YES, please specify and identify what is needed to make this happen?

18. If you feel that I have overlooked some important issues, or wish to add further comments, please use this space to tell me about them.

Please return completed form to Lauren Humby using one of the following options:

Email: **lhumbby@myune.edu.au**

Fax: **02 6773 3748**

Post: **Lauren Humby**

**Criminology**

**School of Behavioural, Cognitive and Social Sciences**

**University of New England**

**Armidale NSW 2351**

***Thank you sincerely for your assistance with this research.***

.....

YES, I would like to receive a copy of the findings

Name \_\_\_\_\_ Email \_\_\_\_\_

Address \_\_\_\_\_



**Lauren Humby**  
**Criminology**  
**School of Behavioural, Cognitive and Social Sciences**  
**University of New England**  
**Armidale NSW 2351**  
**Phone: (02) 67732116**  
**Fax (02) 6773 3748**  
**Email: lhumby@myune.edu.au**

## Information Sheet for Participants

### **Aims of the research**

This research aims to identify the current nature of prison-based dog programs in Australia and the impact they can have on prisoners. To achieve this, two studies will be conducted. Firstly, a national demographic survey will be used to identify and examine prison-based dog programs currently running in Australia. Secondly, interviews with prisoners participating in a prison-based dog program will be conducted to examine the prisoners' experience with the program and to identify if these programs have the potential to help offenders desist from crime.

### **Interview**

I would like to conduct a face-to-face interview with you at [*name of prison*]. The interview will take 30 minutes to one hour. With your permission, I will make an audio recording of the interview to ensure that I accurately recall the information you provide. Following the interview, a transcript will be provided to you if you wish.

### **Confidentiality**

Any information or personal details gathered in the course of the study will remain confidential. No individual will be identified by name in any publication of the results. All names will be replaced by pseudonyms to ensure you are not identifiable.

### **Voluntary Participation**

Please understand that your involvement in this study is voluntary and I respect your right to withdraw from the study at any time. You may discontinue the interview at any time without consequence and you do not need to provide any explanation if you decide not to participate or withdraw at any time.

### **Questions**

The questions are not of a sensitive nature: rather they are general and aimed at gathering information on programs based upon your knowledge of, or experience with, prison-based dog training programs.

### **Upsetting Issues**

It is unlikely that this research will raise any personal or upsetting issues but if it does you may wish to contact your prison chaplain or psychologist.

**Storage of Information**

The data collected will be stored in a locked cabinet at the researcher's office at the University of New England's School of Behavioural, Cognitive and Social Sciences. Any electronic data will be kept on a password protected computer in the same school. Only the research team will have access.

**Disposal of Information**

All the data collected in this research will be kept for a minimum of five years after successful submission of my thesis, after which it will be disposed of by deleting relevant computer files, and destroying or shredding hardcopy materials.

**Approval**

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE15-167, Valid to 16/ 7/2016).

**Contact Details**

Feel free to contact me with any questions about this research by email at [lhumbby@une.edu.au](mailto:lhumbby@une.edu.au) or 02 6773 2116. You may also contact my supervisors:

- Dr Elaine Barclay at [ebarclay@une.edu.au](mailto:ebarclay@une.edu.au) or (02) 6773 2014
- Dr Wendy Brown at [wbrown@une.edu.au](mailto:wbrown@une.edu.au) or (02) 6773 5125
- Dr Joanne Righetti at [drjoanne@petproblemsolved.com.au](mailto:drjoanne@petproblemsolved.com.au) or 0414 561 699

**Complaints**

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at:

Research Services

University of New England

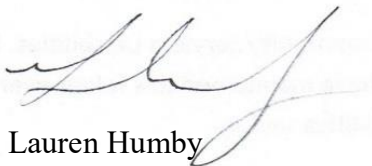
Armidale, NSW 2351

Tel: (02) 6773 3449 Fax: (02) 6773 3543

Email: [ethics@une.edu.au](mailto:ethics@une.edu.au)

Thank you for considering this request and I look forward to further contact with you.

Kind regards,



Lauren Humby



**Lauren Humby**  
**Criminology**  
**School of Behavioural, Cognitive and Social Sciences**  
**University of New England**  
**Armidale NSW 2351**  
**Phone: (02) 67732116**  
**Fax (02) 6773 3748**  
**Email: [lhumb@myune.edu.au](mailto:lhumb@myune.edu.au)**

## **Participant Information**

### **Research Project**

Pawsitive Solutions: The relationship between prisoners and dogs

### **What is the Study About?**

Many people who go to prison find it hard when they get out. This study is about finding out whether you like working with the dogs in the prison and how they can help you.

### **What does this study involve?**

I would like to ask you a number of questions about how you feel about the dogs you train.

### **How much time will the study take?**

It should take about 30-60 minutes of your time.

### **Can I choose whether I take part in the study?**

You can choose whether or not you want to take part in the study. If you do not want to take part, that's OK, it's totally up to you! If you choose to be involved, whatever you tell me will be private.

It's OK if you want someone you trust to support you in taking part in the study.

You can stop taking part in the study at any time. If you stop taking part in the study, your relationship with any service you use will not change.

If you stop taking part in the study any information you have provided will not be used and will be destroyed.

### **Will anyone else know the result?**

Whatever you tell me is private. Only myself and my supervisors, Dr Elaine Barclay, Dr Wendy Brown and Dr Joanne Righetti, will know what you say. We will not tell anybody else what you say. However, the results of this study may be used in paper I might write or present at a conference, but your personal information will *never* be used.

### **Can I tell other people about the study?**

Yes, you can tell other people about the study.

**Has this study been approved?**

Yes, this project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE15-167, Valid to 16/ 7/2016).

**What if I become upset during the study?**

It is unlikely that this project will raise any personal or upsetting issues but if it does you may wish to contact your prison chaplain, psychologist or Aboriginal support officer.

**What if I need more information?**

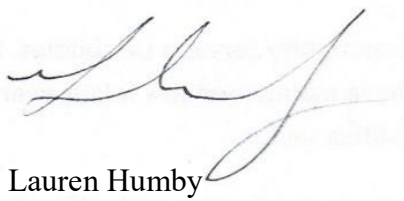
If you would like to know more at any time, please feel free to phone Elaine on 0267732014.

**What if I have a complaint?**

Should you have any complaints concerning the manner in which this research is conducted, please contact Mrs Jo-Ann Sozou, the Research Ethics Officer at the following address:

Research Services, University of New England, Armidale NSW 2351  
Telephone: 02 6773 3449, Fax: 02 6773 3543  
Email: [ethics@une.edu.au](mailto:ethics@une.edu.au)

Thank you.



Lauren Humby

***This information sheet is for you to keep***

## Appendix E: Interview guide for prisoners

### 1. Tell me about the dog you look after.

#### PROMPTS:

- What is the dog's name?
- What breed is the dog?
- What is his/her favourite thing to do?
- What have you taught him/her to do? Any tricks?
- What has the dog taught you?

### 2. Tell me about the dog program.

#### PROMPTS:

- Why did you apply to participate
- What do you like most about the program?
- What do you like least about the program?
- Do you think the dog program has changed you in any way?
- Are there any aspects of the program that could be improved?

### 3. Have you owned a dog before either as a kid or an adult?

- a. If yes, tell me about that dog. Then see prompts.
- b. If no, why not?

#### PROMPTS

- What was the dog's name?
- What breed was the dog?
- What was his/her favourite thing to do?
- Where is he/she now?
- How old were you?
- Was he/she like anyone you know?
  - How does he/she remind you of them?
- Who looked after the dog?
  - What about when you, or your sister/brother were at school?
- Who do you think was his/her favourite? Why?
- Where is he/she now?

### 4. Would you like to have a dog after you are released?

- a. If yes, why? Then see prompts.
- b. If no, why not? What if you had [*job, accommodation etc.*] would you like to get a dog then?

#### PROMPTS

- What kind of dog would you like to get? Breed, size, gender etc.
- Would there be anyone help you look after the dog? Who?
- Do you think participation in the dog program could help you train one of your own dogs?

- 5. If given the opportunity would you like to participate in a dog program after your release?**
- a. If yes, why?
  - b. If no, why not?

PROMPTS

- How do you think a program like this could benefit you?
  - Do you see potential problems?
- 6. Do you have any else to say about the dogs or the program?**
- 7. Do you have any questions for me about the study?**

## Appendix F: Interview guide for staff

### **1. Tell me about the dog program.**

#### PROMPTS:

- What do you like most about the program?
- What do you like least about the program?
- What are the benefits of PDPs for inmates, staff and the dogs?
- What are the disadvantages of PDPs for inmates?
- How effective is the program at challenging and changing criminal behaviours?
- In what ways does the program meet the immediate needs of inmates?
- Do you think this program can rehabilitate offenders and assist them to re-enter society post-release?
- In what ways can the program be improved?

### **2. If given the opportunity do you think prisoners would like to participate in a dog program post-release?**

- a. If yes, why?
- b. If no, why not?

#### PROMPTS

- How do you think a program like this could benefit prisoners?
- Do you see potential problems?

### **3. Do you have any else to say about the dogs or the program?**

### **4. Do you have any questions for me about the study?**





**Lauren Humby**  
**Criminology**  
**School of Behavioural, Cognitive and Social Sciences**  
**University of New England**  
**Armidale NSW 2351**  
**Phone: (02) 67732116**  
**Fax (02) 6773 3748**  
**Email: [lhumb@myune.edu.au](mailto:lhumb@myune.edu.au)**

## **Participant Information**

### **Research Project**

Pawsitive Solutions: The relationship between prisoners and dogs

### **How well can you identify emotion in dogs?**

My name is Lauren Humby and I am conducting research as part of my doctorate degree at the University of New England. I invite you to take part in a pilot study that aims to identify your perception of emotions in dogs. The findings will be used to validate an interview guide for a research study exploring prison-based dog programs.

### **The Survey**

The survey will take about 10 minutes to complete. Most questions are multiple choice and only require you to select an option.

### **Confidentiality**

Your name or any other identifying information is not required in the survey, so please be assured that your responses will remain strictly confidential. The information gathered will be kept securely locked at the University of New England and will not be shared with others or used for any purpose other than this research. The information will be destroyed after a period of five years. This study will be completed by January 2017. Information from the study may be used in journal articles and conference presentations after this date. Some of the comments you provide may be used as quotations in some outputs but the information will be presented in a way that will not allow you to be identified.

Thank you in advance for participating in this study – we very much value your contribution and your time. If there is anything regarding the survey you would like to talk to me about, please do not hesitate to contact me via email at [lhumb@myune.edu.au](mailto:lhumb@myune.edu.au) or 0432528736.

### **Best Wishes**

**Lauren Humby**

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No: HE15-167, Valid to 15/07/2016).

**Complaints:** Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at: Research Services, University of New England, Armidale, NSW 2351 Tel: (02) 6773 3449 Fax: (02) 6773 3543: Email: [ethics@une.edu.au](mailto:ethics@une.edu.au)

**By proceeding with this study, I agree that I have read and understand the above information and voluntarily agree to participate in the research project described.**

## Appendix H: Dog Emotions Survey

1. Are you a dog owner?
  - 1a. How many dogs do you own?
2. How many dogs do you own?
3. Have you ever owned a dog in the past, either as a child or an adult?
  - 3a. How many dogs have you owned in the past?
4. Do you have any other experience with dogs
  - 4a. Please select the options which most accurately represents your experience
5. Following are a series of dog photos (appendix I). For each photo please identify the emotion that you think best describes what the dog is thinking or feeling.

Appendix I: Dog photographs

Photograph 1: Sad



Photograph 2: Happy



Photograph 3: Angry



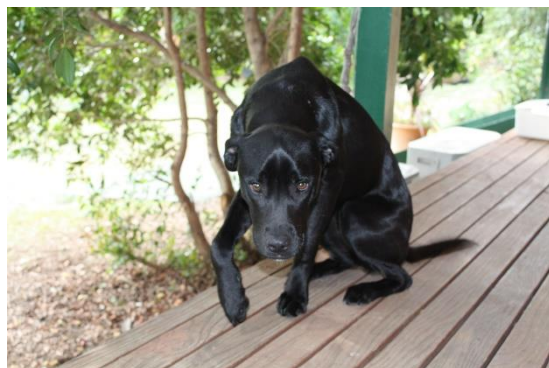
Photograph 4: Sad



Photograph 5: Angry



Photograph 6: Fear





Photograph 7: Happy



Photograph 8: Sad



Photograph 9: Sad



Photograph 10: Happy



Photograph 11: Fear



Photograph 12: Fear

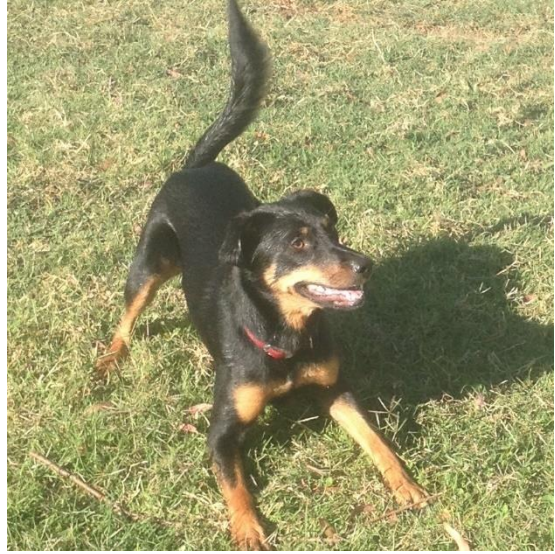




Photograph 13: Happy



Photograph 14: Happy



Photograph 15: Angry



Photograph 16: Fear



Photograph 17: Fear



Photograph 18: Sad



Appendix J: Coding Framework for Prisoner's Emotions

	<b>Prisoner #1</b>	<b>Prisoner #2</b>	<b>Prisoner #3</b>	<b>Prisoner #4</b>	<b>Prisoner #5</b>	<b>Prisoner #6</b>	<b>Prisoner #7</b>	<b>Prisoner #8</b>	<b>Prisoner #9</b>	<b>Prisoner #10</b>
<b>Photo 1</b>	Fearful. Sad	Sad.	Fearful.	Fearful	Fearful	Sad. Fearful	Sad	Sad	Fearful	Sad
<b>Photo 2</b>	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy
<b>Photo 3</b>	Angry	Angry	Angry	Alert	Angry	Angry	Alert	Angry	Angry	Alert
<b>Photo 4</b>	Fearful	Fearful	Relaxed	Curious	Sad	Sad	Sad	Angry	Sad	Curious
<b>Photo 5</b>	Fearful	Happy	Fearful	Angry	Fearful	Happy	Happy	<i>Happy</i>	Angry	Fearful. Angry
<b>Photo 6</b>	Fearful	Fearful	Fearful	Fearful	Fearful	Sad	Sad	N/A	Fearful	Fearful
<b>Photo 7</b>	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy
<b>Photo 8</b>	Tired	Relaxed	Fearful	Sad	Sad	Sad	Sad	Sad	Sad	Sad
<b>Photo 9</b>	Relaxed	Relaxed	No emotion	Relaxed					N/A	
<b>Photo 10</b>	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy
<b>Photo 11</b>	Fearful	Fearful	Fearful	Fearful	Fearful	Happy	Fearful	N/A	Fearful	Fearful
<b>Photo 12</b>	Happy	Happy	Fearful	Happy	Happy	Happy	Happy	Happy	Happy	Fearful
<b>Photo 13</b>	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy
<b>Photo 14</b>	Happy	Happy	Happy	Happy	Happy	Happy	N/A	Happy	Happy	Happy
<b>Photo 15</b>	Angry	Happy	distracted	Angry	Fearful	Fearful	N/A	N/A	Fearful	Fearful. Angry
<b>Photo 16</b>	Happy	Sad	Fearful	Fearful	Fearful.	Fearful	Sad	N/A	Fearful	Fearful
<b>Photo 17</b>	Fearful	Happy	Fearful	Fearful	Happy	Happy	Happy	Happy	Fearful	Fearful
<b>Photo 18</b>	Don't know	Fearful.	Fearful	Fearful	Fearful	Happy	N/A	Fearful	Sad	Fearful