Student ID: a1703182

Gay men, Companion Animals, and Masculine Identity

This thesis is submitted in partial fulfilment of the Degree of

Bachelor of Psychological Science (Honours)

School of Psychology

Faculty of Health and Medical Sciences

University of Adelaide

October 2017

Word Count: 9,531

Table of contents

Introd	uctio	on	1
1.1	Ga	y Men's Psychological Wellbeing	1
1.2	Ga	y Men's Conflict Due to Internalisation of Society's Masculine Ideals and	
Nega	ative	Feelings About Being Gay	2
1.3	Ga	y Men, Companion Animals, and Human Psychological Wellbeing	6
1.4	Ga	y Men, Attachment to Companion Animals and Gender Role Conflict	9
1.5	Stu	udy Aim and Research Gap	11
1.6	Ну	potheses	12
1.0	6.1	Bonding with companion animals.	12
1.0	6.2	Emotional Intimacy with companion animals	12
Metho	d		13
2.1	Pai	rticipants	13
2.2	Saı	mpling procedure	16
2.3	Sai	mple Size, Power, and Precision	16
2.4	Me	easures	16
2.4	4.1	CENSHARE Pet Attachment Scale (PAS).	16
2.4	4.2	Gender Role Conflict Scale Short Form (GRC-SF)	17
2.4	4.3	Internalised Homonegativity (IH).	18
2.4	4.4	Marlowe-Crowne Social Desirability Scale (SDS).	18
2.5	Re	search design	19
2.5	5.1	Procedure.	19

2.5.	5.2 Ethics.	19
Results	\$	20
3.1	Participants	20
3.2	Descriptive statistics	21
3.3	PA, GRC, and IH dynamics	23
3.4	GRC and IH association	23
3.5	Hypotheses testing	24
3.5.	5.1 Hypothesis 1	24
3.5.	5.2 Hypothesis 2	24
3.5.	5.3 Hypothesis 3	24
3.5.	5.4 Hypothesis 4	25
3.5.	5.5 Hypothesis 5	25
Discuss	sion	27
4.1	Overview of Findings	27
4.2	Implications	35
4.3	Limitations	37
4.4	Future research	38
4.5	Conclusion	39
Referen	nces	41
Append	lix A	49

Appendix B	50
Appendix C	51
Appendix D	53
Appendix E	68

List of figures

Figure 2.1. Gender Role Conflict Model	5
Figure 2.2. Human-animal interaction and the Gender Role Conflict model	10

List of tables

Table 1. Participants' descriptives	13
Table 2. Companion animal ownership descriptives	15
Table 3. Comparison between participants who met the survey criteria but left the survey	
uncompleted (n = 114) and those who fully completed the survey (n = 397)	20
Table 4. Participants' psychological descriptives and variables normality test	22
Table 5. Chi-square test. Participants' psychological descriptive associations with	
demographics	23
Table 6. Summary of Hypotheses testing	26

Abstract

Gay men experience higher levels of psychological distress and may be victims of stigma and discrimination. Research suggests that gay men who internalise society's ideals of masculinity develop more negative feelings about being gay. Another body of evidence suggests that bonding with companion animals might be involved in enhancing self-esteem, staving off the negativity resulting from social rejection, and improving human psychological wellbeing. Combining these notions, how gay men's conflict due to masculine ideals relates to bonding with companion animals, has yet to be explored. The present study considers how attachment to companion animals relates to masculine gender role conflict and negative feelings about being gay. A convenience sample was recruited through advertisements in social media and self-identified gay men (N=397) completed an on-line cross-sectional survey. In general, participants were highly educated gay men, with the majority being owners of dogs and/or cats. Results indicate that stronger levels of attachment to companion animals were associated with lower levels of conflict about masculine ideals (p < .05) and fewer negative feelings about being gay (p < .05). Stronger levels of emotional intimacy with companion animals were associated with lower levels of conflict about expressing emotions to other people (p < .05). This study presents evidence to suggest that attachment to companion animals may have implications for improving psychological wellbeing in gay men, as companion animals could be: (a) serving as a form of social support for their owners; (b) contributing to gay men's self-acceptance; and/or (c) enhancing gay men's abilities to express their emotions.

Declaration

This thesis contains no material which has been accepted for the award of any other

degree or diploma in any University and, to the best of my knowledge, this thesis contains no

materials previously published except where due reference is made. I give consent to this

copy of my thesis, when deposited in the University Library, being available for loan and

photocopying.

Also, I give permission for the digital version of my thesis to be made available on the

web, via the University's digital research repository, the Library Search and also through web

search engines, unless permission has been granted by the School to restrict access for a

period of time.

Signature

Xxxxx xxx

October, 2017

vii

Acknowledgments

Firstly, I would like to extend my heartfelt gratitude to my supervisors Prof. Anna Chur-Hansen and Prof. Deborah Turnbull. It was an honour, a privilege, and a delightful experience to work with you. Thank you.

To the University of Adelaide for giving me the chance to be one of its students.

Likewise, I would like to extend my appreciation to all my professors, especially Dr Carolyn Semmler, and the staff members of this institution who supported me in this journey. Thank you.

To my parents in Venezuela who are my life role models and who were always there loving me and remotely encouraging me to pursue this dream, my dream. Thank you.

To my mother in-law, Mariela Artiles, who has loved me as a son and has taught me to be a better human being. Thank you.

To my family and friends in Australia and all over the world. You make my life so much better. Thanks for being there in the good times and the not so good ones.

To my colleagues at McKinsey & Company, particularly Dorte and Anu. Thanks for your support, understanding, consideration, and flexibility.

To my Professors and group of Psychologists in Costa Rica. Your knowledge, support, and love have been invaluable. Thank you.

To those who inspired me to become a psychologist, particularly my beloved "Sra. Dora", Marisol, and Norma Brito. Thank you.

A special thank you to my companion animals of today and all my life. You are the reason of my topic, my deepest inspiration, and source of energy. Thanks for giving me unconditional love and so much joy.

And last, but certainly not least, I would like to thank my partner, my soul mate, and the love of my life, Miguel Artiles. Thanks for being more than what I could have ever dreamed in a partner, my deepest friend, my thought partner, my guide, my support, my love, my home, my joy, "mi pescado", my Ko. Thank you from the deepest part of my heart, without you this dream would not have been possible.

Thank you all, thank you universe, we did it!

This study explores how socialised masculine ideals and gay men's acceptance of their sexual identity relates to bonding (attachment) with companion animals in the context of Australian society and gay men's psychological wellbeing.

1.1 Gay Men's Psychological Wellbeing

Wellbeing broadly refers to optimal psychological functioning (Ryff & Keyes, 1995). In this study, an Eudaimonic view of wellbeing is used. Different definitions of wellbeing have emerged from two distinct philosophies, the Hedonic and the Eudaimonic view. While the Hedonic view is yielded from the notions of pleasure or happiness, the Eudaimonic view has its origins in the philosophical ideas of Aristotle (the concept of eudaimonia) and focuses on meaningful existence, self-determination and the fulfilment of one's potential (Ryan & Deci, 2001; Ryff & Keyes, 1995). Putney (2014) considered the Eudaimonic perspective as the most appropriate view for studying positive psychological functioning in sexual minorities. The Eudaimonic theoretical model of wellbeing integrates six dimensions: self-acceptance, environmental mastery, purpose in life, positive relations with others, personal growth, and autonomy (Ryff & Keyes, 1995). These six dimensions are aligned to the objective of this study, thus the Eudaimonic view is the conceptual framework for gay men's psychological wellbeing.

Gay men experience a higher risk of psychological distress and stigmatisation as a result of socialised ideals about masculinity in comparison with heterosexual men (Meyer, 2003); therefore, attention must be focussed on them to improve the wellbeing of this population. It is known that sexual minorities experience higher levels of stress related to social stigmatisation than the overall population. Previous research indicates that gay men who suffer from minority stress (internalised homophobia, stigma and actual discrimination)

are at least twice as likely to have mental health problems (Meyer, 1995, 2003; Skerrett, Kolves, & De Leo, 2015). Studies consistently demonstrate that lesbian, gay, bisexual and transgender populations are more vulnerable and at higher risk for suicidal and non-suicidal self-injury than the overall population (Batejan, Jarvi, & Swenson, 2015; Jackman, Honig, & Bockting, 2016). The Australian Human Rights Commission (2014) indicated that six in ten homosexual people in Australia have suffered homophobic verbal abuse and two in ten have suffered physical homophobic abuse; meanwhile, gay men are more likely to suffer homophobic abuse than gay women. In addition, a need for customised interventions for sexual minorities has been indicated (Mohr & Fassinger, 2000; Moradi, Mohr, Worthington, & Fassinger, 2009). In this context, it is important to understand how Australian masculine ideals relate to gay men's (a) acceptance of their sexual identity; (b) emotional and behavioural self-restrictions; and (c) psychological self-devaluation.

1.2 Gay Men's Conflict Due to Internalisation of Society's Masculine Ideals and Negative Feelings about Being Gay

Men's Gender Role Conflict (GRC) is a major cause of psychological distress in men, including heterosexual men (O'Neil, 2008, 2013; O'Neil, Helms, Gable, David, & Wrightsman, 1986). It refers to men's self-restrictions, self-devaluations and self-violations as a result of internalised ideals of masculinity. Gender Role Conflict is defined as a psychological state where gender roles have negative consequences on an individual or the people around them as a consequence of an individual's self-restrictions, self-devaluations and/or self-violations due to the internalisation of society's ideals of masculinity. As a result, this conflict reduces an individual's ability to actualise their human potential and/or negatively impacts someone else's potential (O'Neil et al., 1986).

In the early stages of life, men learn the expected macho archetype from their parents, peers, and values from their particular society and culture. Generally, society's macho archetype rejects feminine behaviour in men and expects men to be assertive, powerful, emotionally contained and independent. As a result of this archetype, some men repress their own feminine side (aspects such as gentleness, empathy and sensitivity), exaggerate their masculinity (macho behaviour) and, dreading society's reactions, tend to restrict themselves from expressing affection, admiration or love for others – especially other men. Such behaviour can increase men's risk of having issues with known barriers to health and wellbeing, such as depression, interpersonal sensitivity, low self-esteem, anxiety, problems with intimacy, increased alcohol usage, anger, and a decreased likelihood of seeking psychological help (Ervin, 2005; O'Neil, 2008, 2013; O'Neil et al., 1986; Wester, Pionke, & Vogel, 2005). Hence, men who internalise society's masculine ideals have a higher risk of psychological suffering than those who are not affected, or have developed positive coping mechanisms to deal with such societal ideals.

Gay men are not excluded from society's ideals of masculinity. A fear of femininity may lead to the development of negative feelings about being gay and, consequently, gay men may experience an increased risk of psychological suffering. Studies indicate that heterosexual and homosexual men internalise societal ideals of masculinity and the fear of femininity differently. Gay men may encounter greater conflict around developing a positive male identity than heterosexual men, in the context of same-sex attraction (Blazina & Watkins, 2000; McDermott & Schwartz, 2013; O'Neil, 2008). Sanchez, Westefeld, Liu, and Vilain (2010) studied 622 self-identified gay men through relational analysis and found that men's GRC was significantly related to more negative feelings about being gay. Ervin (2005) studied 277 gay men and found that self-restrictions on the expression of emotions was the strongest predictor of decreased psychological wellbeing in gay men among the four

psychological domains of GRC (described in more detail below). Evidence supports that gay men who are affected by gender socialised ideals, particularly those who restrict the expression of emotions, experience greater risk of psychological suffering than those with lesser levels of men's gender role conflict.

The most widely used theoretical framework of GRC was developed by O'Neil et al. (1986); this GRC model is the one used in the current study. The GRC framework considers the different psychological dimensions (i.e., cognitive, affective, unconscious, and behavioural dimensions) associated with self-restrictions, self-devaluations, and self-violations that have resulted from internalised masculine ideals that limit men from being fully-functioning people. The four psychological domains of GRC are: Restrictive Emotionality (RE); Restrictive Affectionate Behaviour Between Men (RABBM); Success, Power and Competition (SPC); and Conflict Between Work and Family Relations (CBWFR) (see Figure 2.1). RE is defined as having limitations and fears about expressing one's feelings, as well as restrictions on openly expressing basic emotions. RABBM represents limitations on expressing one's feelings and thoughts with other men, and conflicts about touching other men. The third factor, SPC, describes personal attitudes about success that are associated with the notion of competition and demonstrating power. The final factor, CBWFR addresses problems in balancing work, school and family relations, resulting in health problems, overwork, stress and a lack of leisure and relaxation time (O'Neil, 2008).

Societal ideals influence the development of men and women's sexual identity. Gay men who value society's masculine ideals may experience challenges to developing a positive identity as a direct consequence of the stigma and discrimination experienced by LGBTQ individuals in society (Mohr & Kendra, 2011). A body of literature suggests that men who are affected by society's masculine ideals may experience homonegativity and

develop more negative feelings about being gay (Chakraborty, McManus, Brugha, Bebbington, & King, 2011; Meyer, 1995, 2003; Sanchez et al., 2010). Internalised homophobia is understood as experiencing negative attitudes about being lesbian, gay, bisexual, transgender or questioning/queer (LGBTQ), directed at the self as a result of the perceived stigma and events of discrimination, violence and/or prejudice around LGBTQ individuals in society (Batejan et al., 2015; Meyer, 2007). In light of these effects, it is important to consider how society's masculine ideals and GRC may influence gay men's development of internalised homonegativity and negative feelings about being gay. In this study, homonegativity is conceptualised based on the framework developed by Mohr and Kendra (2011) as part of their study to revise and extend the multidimensional measure of sexual minority identity. The lesbian, gay, and bisexual identity scale (LGBIS) explores gay men's negative feelings about being gay and preference for being heterosexual.

Figure 2.1. Gender Role Conflict Model

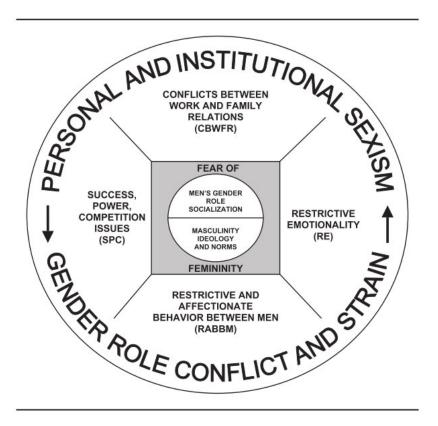


Figure 2.1. Theoretical model of GRC developed by O'Neil (2008, p. 368)

1.3 Gay Men, Companion Animals, and Human Psychological Wellbeing

Animals have played numerous roles in the lives of humans. They have been used for nourishment, transportation, protection, entertainment, research and companionship, among others (Walsh, 2009). The notion of companionship is now explored in this study.

The term "companion animal" is used as the most adequate description of the affection and reciprocity involved in the relationship between humans and animals when a reciprocal companion relationship exists (Walsh, 2009). In the past, the term "pet" was used to describe animals living with humans in their homes; however, animal groups and anthrozoologists have recently expressed their preference for the term "companion animal", to better reflect the human-animal interaction and mutual psychological bonding (Slatter, Lloyd, & King, 2012; Walsh, 2009). In this study the term companion animal is preferred.

Companion animals play an important role in the life of many Australians and there is ongoing research attempting to extend our understanding of how bonding with these animals can impact human psychological functioning (see for example, Barker & Wolen, 2008).

According to Richmond (2013) the proportion of households with companion animals in Australia was estimated at 63% in 2013 by the Animal Health Alliance of Australia.

Richmond highlighted that this rate is one of the highest incidences in the world. A body of literature affirms the value of bonding with, or attachment to, companion animals for positive psychological functioning and human wellbeing (Herzog, 2011; McConnell, Brown, Shoda, Stayton, & Martin, 2011; Putney, 2014; Walsh, 2009; Wood et al., 2017). McConnell et al. (2011) experimentally demonstrated that companion animals may have implications for enhancing self-esteem and staving off negativity caused by social rejection; however, much of the research on this subject is anecdotal, drawing upon weak methodological designs, and is thus inconclusive (Chur-Hansen, Winefield, & Beckwith, 2009). Whilst there is often an

assumption that companion animals have positive effects on mental health, there is evidence suggesting that it can have negative consequences for the health of some people; e.g. elderly and marginalised people who suffer distress due to the challenges of proper care for their companion animals, or who develop psychological problems when separation is unavoidable (Chur-Hansen, 2010; Chur-Hansen, Winefield, & Beckwith, 2008; Chur-Hansen et al., 2009; Herzog, 2011; Slatter et al., 2012; Winefield, Black, & Chur-Hansen, 2008). It is important to understand how bonding with companion animals impacts psychological functioning in the context of social rejection and Australian society's ideals about masculinity.

The notion of human-animal companionship explored in this study is restricted to attachment and affectional bonds, as this relationship may positively influence the wellbeing of both humans and animals (Payne, Bennett, & McGreevy, 2015). Siniscalchi, Stipo, and Quaranta (2013) argue that attachment and affectional bonds can be understood as a similar relationship that connects individuals in time and space, characterised by caring and protection, and emotional security and comfort behaviour. A body of literature suggests that the human-animal affectional relationship follows similar behavioural and emotional bonds to those found in the human caregiver-infant relationship (Holcomb, Williams, & Richards, 1985; Payne et al., 2015; Siniscalchi et al., 2013; Topál, Miklósi, Csányi, & Dóka, 1998). Siniscalchi et al. (2013) stated that there is sufficient evidence suggesting that the dog-human affectional bond can be characterised as an attachment bond. The principles of Attachment Theory proposed by Bowlby and Ainsworth (Bowlby, 1958; Bretherton, 1992) consider four features of the human caregiver-infant relationship: (a) actioning to stay close to the figure of attachment (proximity maintenance); (b) experiencing anxiety or suffering when separated from the figure of attachment (separation distress); (c) relying on the figure of attachment as a source of emotional support or/and comfort (safe haven); and (d) feeling more comfortable to interact with unknown objects in the presence of the figure of attachment (secure base)

(Payne et al., 2015). This study explores how bonding with a companion may influence gay men's wellbeing based on the principles of the attachment bond that may exist between humans and animals.

Research into bonding with companion animals has shown gender differences, with women showing stronger attachment to companion animals than men (Bartone, 2014; Holcomb et al., 1985). Bartone (2014) argues that studies on men may report lower levels of attachment to companion animals because men's emotional responses are influenced by cultural gender-role stereotypes of masculinity. Kurdek (2009) studied 975 older people living with companion animals and found that some people (men, widowed people, those highly involved in the care of their dog, and people uncomfortable with self-disclosure) preferred to turn to their animal rather than to another human when looking for emotional comfort. In addition, Walsh (2009) argues that seeking comfort from companion animals is more likely to be found in minorities who experience stigma and discrimination, such as gay and lesbian people, as companion animals are seen to provide non-judgemental love and loyalty. Putney (2014) conducted a qualitative study with 12 older Lesbian adults and found that bonding with companion animals has potential implications for enhancing selfacceptance, positive relationships with others, personal growth, and purpose in life (four of the six dimensions of Eudaimonic wellbeing). It is possible that gay men with higher levels of internalised conflict due to society's ideals about masculinity will be more likely to turn to their companion animals compared to men who do not experience such conflict; consequently, these gay men will develop stronger attachment to their companion animals. At present, studies focussing on gay men and companion animals are limited and no research to date has explored how attitudes towards masculinity and self-concepts relate to gay men's attachment to companion animals. Further research in this area is required to explore how gay men bond with companion animals in the context of socialised masculine ideals.

1.4 Gay Men, Attachment to Companion Animals and Gender Role Conflict

A theoretical model has been proposed for male-companion animal attachment, although it did not consider sexual identity. O'Neil, Denke, and Blazina (2016) recently developed a theoretical model (see Figure 2.2) to conceptualise how human-human attachment and human-animal attachment interact in the context of society's ideals of masculinity. One of the purposes of this model is to develop a theoretical paradigm to explain how men bond with companion animals. Blazina and Kogan (2016) have called for empirical research linking GRC to men's connection with companion animals, as well as studies explaining how men's psychological or interpersonal problems caused by emotional and/or behavioural self-restrictions, self-devaluations, and/or self-violations due to society's masculine ideals might relate to men's attachment to companion animals. O'Neil et al. (2016) have acknowledged Thompson and Pleck's (1995) criticisms, arguing that the GRCS (Gender Role Conflict Scale) measures only a limited dimension of the behavioural domains of men, but does not assess essential areas of men's life, such as sexuality and the performance of homophobia. After recognising the need to include men's sexual identity in the study of men's GRC, O'Neil et al. (2016) have invited future researchers to extend knowledge in this area. Currently, there is no research investigating gay men's attachment to companion animals and GRC; therefore, one of the purposes of this study is to contribute to knowledge in this area.

Figure 2.2. Human-animal interaction and the Gender Role Conflict model

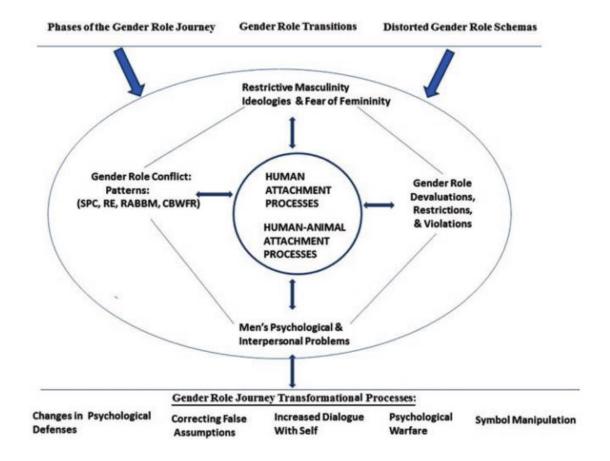


Figure 2.2. Theoretical model to connect men's human and animal attachments in the context of the gender role conflict (O'Neil et al., 2016, p. 16)

In this study, gay men's attachment to companion animals is explored in terms of emotional intimacy and relationship maintenance. The majority of human-companion animal research studies are based on theoretical models of infant-human caregiver attachment and/or social support theories. In this study, the framework used to conceptualise attachment to companion animals is the one proposed by Holcomb et al. (1985) as part of their efforts to identify the elements of the human-animal attachment relationship and to validate the CENSHARE Pet Attachment scale (PAS). This framework is based on the infant-human caregiver attachment theory as proposed by Bowlby and Ainsworth (Bowlby, 1958;

Bretherton, 1992; Holcomb et al., 1985). It considers behavioural and emotional aspects of human bonding with companion animals, in the context of emotional intimacy and relationship maintenance with those companion animals. Relationship maintenance (RE), is widely defined as behaviour related to physical and sensual interaction, communication and investment of time; Intimacy (I) considers attitudes around emotional importance, physical closeness and arrangements for close proximity (Holcomb et al., 1985). These two dimensions support the purpose of this study of exploring how gay men's behavioural interactions and emotional intimacy with companion animals may be related to behavioural and/or emotional self-restrictions around other people due to GRC.

1.5 Study Aim and Research Gap

Aiming to extend the understanding of how attachment to companion animals may be related to gay men's positive functioning and psychological wellbeing in the context of socialised masculine ideals, the following gaps in research have been identified.

There is evidence showing that gay men's GRC relates to negative feelings about being gay (Sanchez et al., 2010). Walsh (2009) suggested that gay men may follow a particular pattern of attachment to companion animals; however, no research has considered how gay men's attachment to a companion animal may relate to GRC and negative feelings about being gay (internalised homonegativity).

Additionally, researchers have not explored how gay men's emotional intimacy with companion animals relates to gay men's problems with acceptance of their sexual identity (internalised homonegativity), or restrictions on expressing their emotions and/or affection towards other men.

This study aims to replicate the study conducted by Sanchez et al. (2010) which found a positive correlation between GRC and internalised homonegativity, while extending the

understanding of how socialised masculine ideals predict gay men's attachment to their companion animals.

1.6 Hypotheses

1.6.1 Bonding with companion animals.

Hypothesis 1: A higher score on the CENSHARE Pet Attachment scale will be positively correlated with more negative feelings about being gay, as measured on the Internalised Homonegativity subscale of the LBGIS.

Hypothesis 2: A higher score on the CENSHARE Pet Attachment scale will be positively correlated with higher levels of concern about masculine ideals, as measured on the Gender Role Conflict scale.

1.6.2 Emotional Intimacy with companion animals.

Hypothesis 3: A higher score on the Intimacy subscale of the CENSHARE Pet Attachment scale will be positively correlated with more negative feelings about being gay, as measured on the Internalized Homonegativity subscale of the LBGIS.

Hypothesis 4: A higher score on the Intimacy subscale of the CENSHARE Pet

Attachment scale will be positively correlated with higher levels of Restricted Emotionality,
as measured on the Restricted Emotionality subscale of the Gender Role Conflict scale.

Hypothesis 5: A higher score on the Intimacy subscale of the CENSHARE Pet

Attachment scale will be positively correlated with higher levels of Restricted Affectionate

Behaviour Between Men, as measured on the Restricted Affectionate Behaviour Between

Men subscale of the Gender Role Conflict scale.

Method

2.1 Participants

The sample consisted of 397 males who took part in a survey. Eligibility criteria required them to be over the age of 18, self-identified as homosexual, Australian citizens or permanent residents living in Australia, and to have lived with at least one companion animal during the previous 12 months.

As shown in Table 1, the majority of participants (54%, n = 215) were between 25 and 44 years of age, had completed a certificate or higher level of education (77%, n = 307), were employed full-time or part-time (83%, n = 330), shared a household with other people (83%, n = 331), did not have children living with them (91%, n = 361), and identified themselves as their companion animal's primary caregiver (76%, n = 303).

Table 1

Participants' descriptives

Characteristics	Frequency $(n = 397)$	Percent
Age group		
18 to 24	77	19.4
25 to 34	111	28.0
35 to 44	104	26.2
45 to 54	58	14.6
55 to 64	39	9.82
65 to 74	7	1.76
75 or older	1	0.25
Primary language spoken in your childhood		
home		
English	369	92.9
Spanish	9	2.27
Other/multiple languages	19	4.79
Highest level of school completed		
Less than high school degree	22	5.54
High school degree or equivalent	68	17.1
Certificate/diploma	133	33.5
University degree - undergraduate	117	29.5

University degree - postgraduate	57	14.4
Australian State of residence		
New South Wales	117	29.5
Victoria	94	23.7
Queensland	90	22.7
South Australia	44	11.1
Western Australia	28	7.05
Australian Capital Territory	11	2.77
Tasmania	7	1.76
Northern Territory	6	1.51
Employment status		
Employed, working full-time	250	63.0
Employed, working part-time	80	20.2
Not employed, looking for work	22	5.54
Not employed, not looking for work	15	3.78
Retired	18	4.53
Disabled, not able to work	12	3.02
Average household income		
\$0-\$24,999	29	7.30
\$25,000-\$49,999	65	16.4
\$50,000-\$74,999	75	18.9
\$75,000-\$99,999	56	14.1
\$100,000-\$124,999	41	10.3
\$125,000-\$149,999	34	8.56
\$150,000-\$174,999	26	6.55
\$175,000-\$199,999	29	7.30
\$200,000 and up	42	10.6
Current relationship status		
Married	25	6.30
Widowed	4	1.01
Divorced	10	2.52
Separated	8	2.02
In a domestic partnership or civil union	187	47.1
Single, but cohabiting with a significant other	28	7.05
Single, never married	135	34.0
Children under 18 living in household		
Yes	35	8.82
No	361	90.9
Prefer not to say	1	0.25
Number of people currently live household		
1	66	16.6
2	218	54.9
3	53	13.4

4	39	9.82
5 or more	21	5.29
Pet Primary Caregiver		
Yes	303	76.3
No	74	18.6
Uncertain	20	5.04

Regarding the type of animal, dogs (72%, n = 285) were most common, followed by cats (45%, n = 177), with many participants living with both dogs and cats (20%, n = 80). The majority of them had more than one companion animal living in the household (63%, n = 283) (see Table 2).

Table 2

Companion animal ownership descriptives

Characteristics	Frequency (n=397)	Percent						
Number of companion animals living in household								
1	144	36.3						
2	119	30.0						
3	43	10.8						
4	26	6.55						
5	10	2.52						
6	15	3.78						
7 or more	40	10.1						
Type of companion animal								
Dog/s	205	51.6						
Cat/s	97	24.4						
Dog/s and Cat/s	80	20.2						
Other/s	15	3.8						
Type frequency								
Dog/s	285	71.8						
Cat/s	177	44.6						
Fish	61	15.4						
Bird/s	48	12.1						
Reptile/s	24	6.05						
Horse/s	7	1.76						
Other/s like rabbit/s, chicken/s and cow/s	27	6.80						

2.2 Sampling procedure

A convenience sample was recruited through advertisement in social media and through snowballing. A Facebook page (see Appendix A) was created to host the survey and a study advertisement (see Appendix B) was posted in groups visited by gay people and animal lovers, such as "Gay Australia" and "Pet Events Australia" (see Appendix C – Facebook groups). No incentives were offered to take part in this study.

2.3 Sample Size, Power, and Precision

The sample size was calculated by conducting an *a priori* power analysis for a Bivariate Correlation test, considering (a) a theoretical medium effect size (r = .3) (Cohen, 1992); (b) a level of significance of 95% ($\alpha = .05$); and (c) a power of 80%. Considering the aims of the current study, the same theoretical assumptions were used to obtain the minimum sample size for the five hypotheses explored. Executing the respective analysis in G*Power for a 1-tailed test, the minimum sample size obtained was 67 participants. A total of 609 participants were recruited; 65% of them (N = 397) fulfilled the study requirements and fully completed the survey, giving a sample size sufficient for statistical inferences.

2.4 Measures

2.4.1 CENSHARE Pet Attachment Scale (PAS).

This scale assesses the human attachment bond with companion animals based on infant-human caregiver attachment theory (Holcomb et al., 1985). The 27-item scale requires respondents to rate how frequently each statement applies to them on a 4-point Likert-type scale (*almost never* = 1, *almost always* = 4), and yields scores for two factors "*Relationship Maintenance*" (16 items) and "*Intimacy*" (11 items). Attachment to companion animals/Pet Attachment (PA) is conceptualised as the result of the addition of the previous two factors. While Relationship Maintenance (RE) focuses more on aspects related to physical and

sensory interaction, Intimacy (I) comprises attitudes associated with emotional relationship and physical proximity. Examples of statements in the scale include: "You like to touch and stroke your pet" and "When you feel bad, you seek your pet for comfort". Reverse scoring applies to items 2, 13, 19, 20, and 27. Scale items are averaged, there is no cut-off score, and higher scores indicate stronger attachment to the companion animal. In the study conducted to develop the PAS, the Cronbach's alpha reported was .83 for RM and .74 for I (Holcomb et al., 1985), while in the present study Cronbach's alpha obtained was .89 for PA, .87 for RM, and .66 for I. PA and RM obtained acceptable reliability (Cronbach, 1951; Tavakol & Dennick, 2011).

2.4.2 Gender Role Conflict Scale Short Form (GRC-SF).

The GRC scale measures men's psychological conflict resulting from adherence to socialised masculinity norms in four dimensions (Good et al., 1995; O'Neil et al., 1986): (a) difficulties expressing one's feelings (RE); (b) struggling to demonstrate superiority against others (SPC); (c) fearing closeness with other men (RABBM); and (d) experiencing distress as a consequence of challenges when balancing professional success and personal life (CBWFR). The 16-item Short Form is an improved version of the original 37-item GRC Scale because it: (a) emphasises the situational, contextual and environmental implications of GRC in men's lives; (b) reduces participant's risk of boredom; and (c) maximises flexibility and clinical usage by significantly reducing the length of the scale (Wester, Vogel, O'Neil, & Danforth, 2012). The GRC-SF requires participants to express their level of agreement on a 6-point Likert-Type scale (strongly disagree = 1, strongly agree = 6). Subscales have four items each. Examples of statements include "I do not like to show my emotions to other people", "I strive to be more successful than others", "Affection with other men makes me tense", and "Finding time to relax is difficult for me". Scores are averaged and there is no cut-off score; higher results imply higher levels of conflict. The study conducted to develop the

GRCS-SF reported, for the revised subscales, a coefficient alpha of .77 for RE and CBWFR, .78 for RABBM, and .80 for SPC (Wester et al., 2012). In the current study, the Cronbach's alpha obtained was (a) .85 for GRC, (b) .74 for RE, (c) .58 for SPC, (d) .55 for RABBM, and (d) .54 for CBWFR. GRC and RE obtained acceptable values of alpha (Cronbach, 1951; Tavakol & Dennick, 2011).

2.4.3 Internalised Homonegativity (IH).

Negative feelings about being gay were measured using the IH subscale of the revised and extended version of the Lesbian, Gay and Bisexual Identity Scale (LGBIS) (Mohr & Kendra, 2011). This scale requires respondents to indicate their level of agreement in a 6-point Likert-type scale ($disagree\ strongly=1$, $agree\ strongly=6$). The 3-item scale comprises the following statements: "If it were possible, I would choose to be straight"; "I wish I were heterosexual"; and "I believe it is unfair that I am attracted to people of the same sex". Scores are averaged and higher scores imply more homonegativity. In the studies conducted to revise and extend the LGBIS the Cronbach's alpha reported for IH ranged from .86 to .93 (Mohr & Kendra, 2011). In the present study, $\alpha=.88$, demonstrating acceptable reliability (Cronbach, 1951; Tayakol & Dennick, 2011).

2.4.4 Marlowe-Crowne Social Desirability Scale (SDS).

The social desirability responses, or tendency to answer as per culturally approved standards, was measured using the short version of the Marlowe-Crowne SDS (Reynolds, 1982). This 13-Item scale is a faster and more adequate substitute of the original and widely recognised 33-Item Marlowe-Crowne scale (Reynolds, 1982). The *SDS* asks participants to respond "*True*" or "*False*" to statements that have been identified as socially sanctioned and approved, but seldom probable, behaviour (Crowne & Marlowe, 1960). Scores range from 0 to 13, with higher scores interpreted as respondents aiming to overstate their good qualities

and diminish the bad ones. An example of these items is, "I am always willing to admit it when I make a mistake". The study conducted developed a reliable and valid short form of the Marlowe-Crowne SDS, reporting a Cronbach's alpha of .76 for the 13-Items scale (Reynolds, 1982). In the current study the reliability obtained was $\alpha = .68$.

2.5 Research design

2.5.1 Procedure.

A cross-sectional survey design (see Appendix D - Survey) was used in the current study to explore statistical relationships between variables. Participants undertook the study online (SurveyMonkey) anonymously and were advised that they could withdraw at any time. Clicking "next" after the information page was considered as providing consent to participate. In case of any distress caused by the study, participants were invited to obtain immediate support through the organisation Beyond-Blue (www.beyondblue.org.au) and/or QLife (www. qlife.org.au). The survey was open for approximately four weeks (from May 8th to 31st, 2017) and results were analysed using SPSS v24 software.

2.5.2 Ethics.

Ethics approval was granted by the University of Adelaide, School of Psychology Human Research Ethics Subcommittee on 8 May, 2017.

Results

3.1 Participants

From the 609 participants who commenced the study, 98 did not meet the study criteria (of being male, over 18 years of age, self-identified as gay and having a companion animal during the last 12 months). From the remaining 511 participants who properly met the study criteria, a group of 114 left the study before reaching its end. Those who left the survey uncompleted could not be included in the study as they did not provide sufficient data to proceed with the analyses. As shown in Table 3, a comparative analysis indicated that the 397 participants who fully completed the survey had achieved higher levels of education (greater incidence of Certificate or University degree) than the 114 participants who left the study uncompleted and were not included in the analyses.

Table 3

Comparison between participants who met the survey criteria but left the survey uncompleted (n = 114) and those who fully completed the survey (n = 397)

Variable	Result
Age group	No significant association
Primary language spoken in your childhood home	No significant association
Highest level of school completed	There is significant association $\chi^2(4, N = 511) = 18.56, p < .001.$
Australian State of residence	No significant association
Employment status	No significant association
Average household income	No significant association
Current relationship status	No significant association
Children under 18 living in	
household	No significant association
Number of people currently living	
in household	No significant association

Note. Chi-square test.

3.2 Descriptive statistics

As shown in Table 4, the main psychological variables studied did not meet the pattern expected for a normal distribution (See Table 4 - Shapiro-Wilk test of normality, Skewness and Kurtosis).

The variables RM (M = 3.16, SD = 0.50) and I (M = 3.27, SD = 0.41) had distributions with greater incidence of responses towards the upper end of the scale (see Appendix E – Histograms). These results indicated a skewed distribution and a sample with high levels of attachment to their companion animals, PA (M = 3.21, SD = 0.44).

Regarding conflict due to society's masculine ideals, there was a greater proportion of responses in the lower end of the scale for RABBM (M =1.99, SD = 0.74). Similarly, the distribution of the construct RE (M =3.03, SD = 1.08) was skewed towards the lower end of the scale, indicating a higher incidence of respondents with low levels of restricted emotionality. Despite the distributions of the remaining two constructs (SPC [M =3.09, SD = 0.95] and CBWFR [M =3.08, SD = 0.93]) better resembling a normal curve, the aggregate distribution of GRC (M = 2.80, SD = 0.75) revealed an asymmetrical behaviour scale (see Appendix E – Histograms) with higher incidence of participants with low levels of masculine gender role conflict.

Likewise, the distribution of the construct IH (M = 1.93, SD = 1.09) was skewed towards the low end of the scale scale (see Appendix E – Histograms) indicating a greater proportion of participants with low levels of internalised conflict about their homosexuality.

The distribution of the variable for social desirability SD (M = 6.55, SD = 2.79) was a fairly symmetrical and relatively normal scale (see Appendix E – Histograms).

Table 4

Participants' psychological descriptives and variables normality test

	Mean (n = 397)		95%	6 <i>CI</i>			Test of Normality			
Variable	M	SD	LL	UL	Min.	Max.	Shapiro- Wilk Statistic	Sig.	Skewness Std. Error (0.122)	Kurtosis Std. Error (0.244)
PA	3.21	0.44	3.16	3.25	1.30	4.00	.956	.000	0.81	1.07
RM	3.16	0.50	3.11	3.21	1.13	4.00	.961	.000	0.78	0.97
I	3.27	0.41	3.23	3.31	1.55	4.00	.952	.000	0.79	0.95
GRC	2.80	0.75	2.73	2.87	1.00	5.31	.990	.010	0.33	0.21
RE	3.03	1.08	2.93	3.14	1.00	5.75	.976	.000	0.29	-0.60
SPC	3.09	0.95	3.00	3.19	1.00	6.00	.990	.010	0.09	-0.23
RABBM	1.99	0.74	1.92	2.06	1.00	5.00	.919	.000	1.05	1.30
CBWFR	3.08	0.93	2.99	3.17	1.00	5.75	.990	.009	0.08	-0.28
IH	1.93	1.09	1.82	2.04	1.00	6.00	.822	.000	1.12	0.58
SD	6.55	2.79	6.28	6.83	0.00	13.00	.982	.000	0.05	-0.45

Note. PA = Pet Attachment; RM = Relationship Maintenance; I = Intimacy; GRC = Men's Gender Role Conflict; RE = Restricted Emotionality; SPC = Success, Power and Competition; RABBM = Restricted Affectionate Behaviour Between Men; CBWFR = Conflict Between Work and Family Relations; IH = Internalised Homonegativity; SD = Social Desirability; CI = confidence interval for mean; LL = lower limit, UL = upper limit.

3.3 PA, GRC, and IH dynamics

As shown in Table 5, significant associations were found between: (a) PA and participants' age; (b) PA and primary caregiver status; (c) PA and type of animals; (d) GRC and participants' age; and (e) GRC and type of animals. These associations indicated that: (a) older participants had stronger attachment to their companion animals than younger participants; (b) primary caregivers had stronger attachment to their companion animals than non-primary caregivers; (c) dog owners had stronger attachment to their companion animals than cat owners; (d) older participants had lower levels of conflict due to society's masculine ideals than younger participants; and (e) dog owners had lower levels of GRC than cat owners.

Table 5

Chi-square test. Participants' psychological descriptive associations with demographics

	Age group (18 to 34, 35 or older)			Primary caregiver (Yes, No or uncertain)			Type of pet (Dog/s, Cat/s, Dog/s and Cat/s, Other/s)		
Variable ^a	Value	df	Sig.b	Value	df	Sig.b	Value	df	Sig.b
PA - Grouped	15.1	1	.000	25.0	1	.000	13.5	3	.004
GRC - Grouped	29.3	1	.000	0.00	1	.982	7.89	3	.048
IH - Grouped	1.40	1	.237	1.74	1	.188	4.84	3	.184

Note. PA = Pet Attachment; GRC = Men's Gender Role Conflict; IH = Internalised Homonegativity. a = Variables were grouped in two levels - below (Low level) and above (High level) the percentile 50; b = Sig. 2-sided.

3.4 GRC and IH association

Correlational analysis of the variables GRC and IH showed a positive association of medium effect size (Cohen, 1992) between these variables: $r_s(397) = .345$, p = .001. This result indicates that men's negative feelings about being gay increase when gay men's conflict due to society's masculine ideals increase.

3.5 Hypotheses testing

3.5.1 Hypothesis 1: A higher score on the CENSHARE Pet Attachment scale will be positively correlated with more negative feelings about being gay, as measured on the Internalised Homonegativity subscale of the LBGI scale.

As shown in Table 6, results indicate a significant correlation (p < .05) between PA and IH; however, the direction of the relationship was opposite to the hypothesised direction, so *Hypothesis 1* is rejected. Results indicate that a stronger attachment to companion animals is related to lower levels of IH.

3.5.2 Hypothesis 2: A higher score on the CENSHARE Pet Attachment scale will be positively correlated with higher levels of concern about masculine ideals, as measured on the Gender Role Conflict scale.

The results show a significant correlation (p < .05) between PA and GRC (see Table 6); however, the relationship found was in the opposite direction to that which was hypothesised, so $Hypothesis\ 2$ is rejected. Results indicate that a stronger attachment to companion animals is related to lower levels of GRC.

3.5.3 Hypothesis 3: A higher score on the Intimacy subscale of the CENSHARE Pet

Attachment scale will be positively correlated with more negative feelings about
being gay, as measured on the Internalised Homonegativity subscale of the LBGI
scale.

As shown in Table 6, no correlation was found between I and IH, so *Hypothesis 3* is rejected.

3.5.4 Hypothesis 4: A higher score on the Intimacy subscale of the CENSHARE Pet
Attachment scale, will be positively correlated with higher levels of Restricted
Emotionality, as measured on the Restricted Emotionality subscale of the
Gender Role Conflict scale.

Results indicate a significant correlation (p < .05) between I and RE (see Table 6); however, the direction of the relationship was opposite to that which was hypothesised, so *Hypothesis 4* is rejected. Results indicate that stronger emotional intimacy with companion animals is related to lower levels of conflict in expressing one's own emotions to other people.

3.5.5 Hypothesis 5: A higher score on the Intimacy subscale of the CENSHARE Pet
Attachment scale will be positively correlated with higher levels of Restricted
Affectionate Behaviour Between Men, as measured on the Restricted
Affectionate Behaviour Between Men subscale of the Gender Role Conflict scale.

No correlation was found between I and RABBM (See Table 6), so *Hypothesis 5* is rejected.

Table 6
Summary of Hypotheses testing

Hypotheses	Dependant variable	Independent variable	Result	Correlation ^a	Post Hoc Power ^b
1. A higher score on the CENSHARE Pet Attachment scale will be positively correlated with more negative feelings about being gay, as measured on the Internalised Homonegativity subscale of the LBGI scale.	Pet Attachment	Internalised Homonegativity	Negative correlation Hypothesis rejected	$r_s(397) =097, p = .026.$.496
2. A higher score on the CENSHARE Pet Attachment scale will be positively correlated with higher levels of concern about masculine ideals, as measured on the Gender Role Conflict scale.	Pet Attachment	Gender Role Conflict	Negative correlation Hypothesis rejected	$r_s(397) =106, p = .018.$.507
3. A higher score on the Intimacy subscale of the CENSHARE Pet Attachment scale will be positively correlated with more negative feelings about being gay, as measured on the Internalised Homonegativity subscale of the LBGI scale.	Intimacy	Internalised Homonegativity	No correlation Hypothesis rejected	$r_s(397) =050, p = .158.$	
4. A higher score on the Intimacy subscale of the CENSHARE Pet Attachment scale will be positively correlated with higher levels of Restricted Emotionality, as measured on the Restricted Emotionality subscale of the Gender Role Conflict scale.	Intimacy	Restricted Emotionality	Negative correlation Hypothesis rejected	$r_s(397) =106, p = .017.$.498
5. A higher score on the Intimacy subscale of the CENSHARE Pet Attachment scale will be positively correlated with higher levels of Restricted Affectionate Behaviour Between Men, as measured on the Restricted Affectionate Behaviour Between Men subscale of the Gender Role Conflict scale.	Intimacy	Restricted Affectionate Behaviour Between Men	No correlation Hypothesis rejected	$r_s(397) =017 \ p = .371.$	

Note: a = Spearman's Rho; b = Test Family: Exact, Statistical test: Correlation Bivariate, Tail(s): One

Discussion

4.1 Overview of Findings

This study explored how attachment to companion animals may be related to the masculine gender role conflict and negative feelings about being gay in an Australian sample. Five hypotheses were tested, which examined whether higher attachment to companion animals is predictive of greater homonegativity and/or higher levels of masculine gender role conflict in gay men. The hypotheses also explored whether higher levels of intimacy with companion animals would be predictive of greater homonegativity, restricted affectionate behaviour between men, and/or self-restriction on expressing emotion to other people.

Additionally, this study aimed to replicate and extend the findings of Sanchez et al. (2010) by examining how masculine gender role conflict may be related to gay men's negative feelings about their sexual identity in the context of attachment to companion animals.

A body of literature indicates that gay and lesbian people who experience social rejection are more likely to develop negative feelings about being gay (Meyer, 1995, 2003, 2007; Sanchez et al., 2010). Walsh (2009) argued that gay and lesbian people who have experienced stigma and discrimination are more likely to seek comfort from companion animals as they seem to provide non-judgemental love and loyalty. Based on these premises, it was hypothesised that higher levels of attachment to companion animals would be related to greater negative feelings about being gay. Contrary to expectations, higher attachment to companion animals was found to be related to less negative feelings about being gay.

McDermott and Schwartz (2013) and O'Neil (2008) indicated that heterosexual and homosexual men value and internalise societal ideals of masculinity and femininity differently. Aiming to be acceptable for society's macho archetype, homosexual men may develop negative feelings about being gay (Meyer, 1995, 2003). The societal masculine

stereotype demarcates expected behavioural pattern for men and women in their relationships, as well as in their relationships with animals (Budge, Spicer, Jones, & George, 1996; Herzog, Betchart, & Pittman, 1991; O'Neil, 2008). Living with companion animals is known to be subject to gender stereotypes (Miller, Staats, & Partlo, 1992); for example, living with companion animals may be perceived as more feminine than masculine; big dogs are usually stereotyped as more masculine than small ones; and cats are typically associated with feminine or homosexual attributes (Budge, Spicer, StGeorge, & Jones, 1997; Mitchell & Ellis, 2013). Additionally, it is known that companions animals may be used by humans as props to display their own gender identities (Ramirez, 2006). In Australia, there are more women living with companion animals than men (Animals Medicines Australia, 2016), which could be contributing to the reinforcement of feminine stereotypes about living with companion animals. All of the above adds together to indicate that attachment to companion animals may be affected by the societal ideals of masculinity and femininity associated with the human-animal companion relationship.

One possible explanation for weaker attachment to companion animals being related to greater negative feelings about being gay may be that gay men with lower levels of acceptance of their sexual identity restrict themselves from having a stronger attachment to their companion animals because they, consciously or unconsciously, fear that such a relationship may affect their masculine identity within society. O'Neil et al. (2016) indicated the importance of considering the influence of restrictive masculine ideologies and fear of femininity as part of their interactional model to connect men's human-human attachment and human-animal attachment in the context of gender role conflict (see Figure 2.2). In the current study, societal ideals of masculinity and femininity associated with the human-animal companion relationship were not explored; only men's conflicts in the human-human relationship were explicitly examined through GRC. However, the current study confirms the

importance of including the influence of society's ideals of masculinity and femininity on living with companion animals when examining the human-animal attachment relationship in the context of masculine GRC and acceptance of one's sexual identity.

Another possible explanation could be that gay men with higher levels of acceptance of their sexual identity are less concerned about societal ideals of masculinity and/or have developed coping mechanisms to deal with such ideals; therefore, they have stronger attachment to their companion animals. Self-acceptance, environmental mastery, purpose in life, positive relations with others, personal growth and autonomy are the six dimensions of the Eudaimonic perspective of wellbeing (Ryff & Keyes, 1995). Autonomy and selfacceptance are two key dimensions is this context. Autonomy refers to an internal locus of evaluations, not looking to others for approval of one's self and defining one's own standards; self-acceptance refers to accepting one's past life, desires and decisions (Ryan & Deci, 2001; Ryff & Keyes, 1995). Considering that these two psychological constructs seem to be more associated with an internal locus of control than with an external one, gay men with higher levels of autonomy and self-acceptance might show stronger attachment to companion animals if they: (a) have less value for society's ideals of masculinity and are less restricted by the macho archetype; (b) are more comfortable with their sexual identity; and (c) have lower levels of internalised homonegativity. This study did not explore participant's levels of autonomy and self-acceptance, so further inferences are not possible.

Even though causational analysis is out of the current study's scope due to its correlational nature, it is important to highlight that companion animals could have an influence on improving gay men's acceptance of their sexual identity. This hypothetical influence is based on several studies suggesting that attachment to, and caregiving for, companion animals may have implications for improving self-worth, self-esteem and purpose

in life (Barker & Wolen, 2008; Bartone, 2014; Herzog, 2011; Putney, 2014) as result of the fulfilment obtained when caring for others and/or improvements in self-esteem due to better relationships with others. Companion animals may act as lubricants for social relationships with other people because of the greater relaxation generated by the "safe haven" or "secure base" effects (see physiological and psychological effects in Julius, 2013) and higher proximity to unknown people who are interested in the companion animal (Julius, 2013; Wood, Giles-Corti, & Bulsara, 2005; Wood et al., 2017; Wood et al., 2015). Rockett and Carr (2014) indicated that elevations in self-esteem allow individuals to be perceived more positively by others and, consequently, develop more positive relationships and a better image of self. Therefore, it would be possible to sustain that companion animals may develop an environment where people living with them feel better about themselves, more accepted by others, with a sense of belonging in society, thus reducing their negative feelings about being gay. Another possible explanation for this reduction could be that companion animals may act as a source of social support (Barker & Wolen, 2008; Winefield et al., 2008) and, consequently, have implications for improving social relationship, image of self, self-esteem, and well-being. Winefield et al. (2008) argue that practising exercise routines and adequate relationships with human confidents (family and close friends) are reliably more correlated with human wellbeing than attachment to companion animals. None of the studies have explicitly indicated the implications of companion animals on the acceptance of one's sexual identity; further research is required to examine these effects.

Stronger attachment to companion animals was expected to be related to higher levels of GRC. This hypothesis was based on the rationale that men who are affected by societal ideals of masculinity may find it less conflicting to develop attachment for companion animals that for other humans, particularly other men (Blazina & Kogan, 2016). Contrary to expectations, stronger attachments to companion animals were found to be related to less

GRC. Sanchez et al. (2010) found a positive relationship between gay men GRC and negative feelings about being gay. The results of this study replicated such findings; therefore, it is possible to conclude that gay men who have higher levels of GRC are more likely to develop greater negative feelings about being gay. Due to this positive association, the elucidations stated above, which explain why stronger attachment to companion animals is related to less negative feelings about being gay, are also applicable here. The particular effect in this case is that the relaxation derived from the "safe haven" or "secure base" effects could have more evident implications for the reduction of gay men's emotional and behavioural self-restrictions, which are two of the four psychological dimensions of men's masculine GRC.

Stronger intimacy with companion animals was expected to be related to greater negative feelings about being gay, as based on Walsh (2009) who indicated that discriminated sexual minorities are more likely to seek comfort from their companion animals than those who do not experience sexual discrimination. Contrary to expectation, the results of this study indicated no association between intimacy with companion animals and negative feelings about being gay. A possible explanation for this lack of relationship may be that the majority of the gay men who participated in this study may not identify as victim of sexual discrimination, which is consistent with the low levels of negative feelings about being gay showed by them in the current study. Walsh (2009) premises may not be applicable in this case; however, the current study did not explore the level of sexual discrimination felt by participants as a consequence of being gay men. It would be interesting for future investigations to consider the abovementioned aspects and types of stigmatisation and discrimination other than sexuality as triggers of stronger intimacy with companion animals.

Additionally, the lack of association between intimacy with companion animals and negative feelings about being gay could indicate how maintaining a relationship with

companion animals has implications for reducing gay men's conflict with their sexual identity. Holcomb et al. (1985) conceptualised attachment to companion animals as the combination of attitudes of intimacy and relationship maintenance with companion animals. Previously in this study, it was indicated that stronger attachment to companion animals is related to less negative feelings about being gay. Then, considering that intimacy with companion animals was not associated with negative feelings about being gay, it is possible to uphold that relationship maintenance may have a relevant implication in triggering the association between stronger attachment to companion animals and less negative feelings about being gay. Relationship maintenance is understood as behaviour that involves corporeal interaction and communication with companion animals, including grooming, training, stroking, playing and caring for companion animals (Holcomb et al., 1985) – aspects which constitute part of a caregiving relationship. Previously, a body of literature has indicated that caregiving for companion animals may have implications for increasing self-esteem (Barker & Wolen, 2008; McConnell et al., 2011; Putney, 2014; Rockett & Carr, 2014); it could, therefore, be inferred that relationship maintenance has an implication for improving selfesteem. Further studies could help to explain whether relationship maintenance with companion animals has implications for improving self-acceptance, particularly the acceptance of one's sexual identity, as part of the possible contribution towards enhancing self-esteem.

Stronger intimacy with companion animals was expected to be related to higher self-restrictions on expressing emotions to other people. This hypothesis was proposed on the basis of the Blazina and Kogan (2016) study showing that men may restrict their emotional expression to other people to fulfil society's ideals of masculinity and, therefore, sublimate the need for expressing emotion to other people into emotional proximity with their companion animals. Contrary to what was expected, the results of this study show higher

levels of intimacy are related to less emotional restrictions with other people in gay men. This result may indicate that gay men who feel more comfortable expressing their emotions to other people are also more comfortable having emotional closeness and physical proximity with their companion animals. Similarly, gay men who have higher self-restrictions on expressing emotions to other people may be less comfortable having emotional closeness and physical proximity with their companion animals. Human-human attachment premises suggest that a secure attachment pattern promotes healthy emotional connections and more satisfactory relationships with others (Julius, 2013; Rockett & Carr, 2014). The fact that participants of this study were in the majority sharing households with more people and involved in a romantic relationship, might indicate the prevalence of a secure attachment pattern; however, participant attachment styles were not explored in this study and, therefore, further explanations are not possible.

Another possible inference for the previous result may be that intimacy with companion animals has implications for reducing gay men's restrictions on expressing emotions to other people. The benefits of the "safe haven" effect and the qualities of companion animals as "lubricants" for social relationships with other people have already been discussed in this study; however, the quality of human-animal bonding when developing secure attachment relationships between human and companion animals functions independently of the attachment style learnt by the human in his/her relationships with other people (Julius, 2013; Rockett & Carr, 2014), which could be influencing this result. It has been indicated that secure human-animal attachment is more prevalent than secure human-human attachment in people at risk for developmental and psychological disorders (Julius, 2013). Rockett and Carr (2014) argue that people can learn how to love and be loved through their relationships with companion animals. People can learn how to identify the self and other emotions. Hence, it may be possible to consider how stronger emotional closeness and

proximity with companion animals might have implications for developing a more secure attachment style and reducing gay men's restrictions on expressing emotions to other people. As causational assumptions in this study are merely hypothetical, future research is required to examine the effect direction of such inferences.

The last hypothesis expected gay men's stronger intimacy with companion animals to be related to greater restrictions on expressing affectional behaviour to other men. This hypothesis was based on Miller et al. (1992) indicating that affection for pets is positively associated with affection for people, along with the ideas of Blazina and Kogan (2016) and O'Neil et al. (2016) suggesting that men with higher levels of self-restrictions on expressing behavioural affection with other men may use the relationship with companion animals as a substitute to the men-men relationship. Contrary to expectations, intimacy with companion animals was found not to be related to gay men's self-restrictions on expressing behavioural affection with other men. Previous studies have indicated differences in how GRC affects heterosexual and homosexual men (O'Neil, 2008, 2013; Sanchez et al., 2010). Restricted affectionate behaviour between men has been indicated as lower in gay men than in heterosexual men (O'Neil, 2008, 2013). In this study, restricted affectionate behaviour between men gave a lower level of conflict among the four dimensions of GRC explored. Considering the O'Neil et al. (2016) model to explain men's attachment to companion animals in the context of GRC (see Figure 2.2) does not include men's sexual identity and, considering the fact that this hypothesis was supported in this model for men, the result may be indicating that premises for all men cannot be transferred to gay men in this context. It may be required to explore whether men's sexual identity has implications for determining how men attach to companion animals in the context of GRC. This study examined a limited range of men's sexual identities – only men self-identified as gay men. A broader exploration of men's sexual identities is suggested to further understand whether attachment to and

intimacy with companion animals may be related to men's self-restrictions on expressing affectionate behaviour with other men.

4.2 Implications

The findings of this study are contributing new knowledge to research on masculinity, men's psychological wellbeing and anthrozoology, the latter being understood as the study of the interaction between humans and other animals (e.g., relationships with companion animals, animals as social problems, animal welfare, animal rights, and animals and work) (Irvine, 2012). Results also support previous knowledge about men's gender role conflict, internalised homonegativity, and attachment to companion animals.

Previous knowledge is supported in this study by replicating the findings of Sanchez et al. (2010) who indicated that gay men's internalised conflict due to society's masculine ideals negatively influences psychological wellbeing and acceptance of one's sexual identity, and increases men's negative feelings about being gay. Consistent with Sanchez et al. (2010) who suggested that the importance of masculinity and conflict due to masculinity ideals in gay men can adversely affect feelings about being gay and psychological wellbeing, this study found a positive association between gay men's gender role conflict and internalised homonegativity. Hence, the results of this study contribute by expanding the literature that supports how gay men affected by socialised ideals of masculinity are at an increased risk of developing negative feeling about being gay and, therefore, experiencing psychological distress.

Likewise, the results of this study support a developmental perspective of men's masculine conflict and attachment to companion animals. Previous knowledge indicates that male sex roles and acceptance of one's sexual identity vary with aging (Moreland, 1980; O'Neil, 2008). Consistent with previous findings, this study shows that aging is associated

with lower levels of gender role conflict and lower homonegativity. Additionally, attachment to companion animals has been demonstrated to vary with the stages of life (Albert & Bulcroft, 1988; Suthers-McCabe, 2001). The results of this study support these findings and show a positive association between age and attachment to companion animals. Thus, the results of this study contribute by expanding the literature suggesting a developmental perspective for men's masculine conflict and attachment to companion animals.

Additionally, the results of this study extend the existing knowledge about how gay men's attachment to companion animals may relate with their gender role conflict and negative feelings about being gay. The relationships found indicate that stronger attachment to companion animals is related to less negative feelings about being gay and low levels of conflict due to society's ideals of masculinity. Possible reasons for these associations range from suggesting that men who place less value on, or have developed mechanisms to deal with, internalised conflict from societal ideals of masculinity may have stronger attachment to companion animals, to suggesting that attachment to companion animals may reduce men's masculine gender role conflict and negative feelings about being gay. In light of these results, this study hypothesises possible explanations and contributes new ideas for further research.

Likewise, this study contribute new knowledge from the finding that stronger intimacy with companion animals was related to fewer self-restrictions on expressing emotions to other people. This association may indicate that men who are more comfortable expressing their emotions to other people have more emotional proximity to companion animals, or vice versa. This association could also indicate how emotional and physical proximity with companion animals may reduce gay men's restrictions on expressing emotion to other people.

Intimacy with companion animals was found not to be related to either negative feelings about being gay or restricted affectional behaviour between men for gay men. These results contributed new knowledge to science and set the stage for future investigations (e.g., whether behaviour such as grooming, training, stroking, playing and caring for companion animals, or attitudes of *Relationship Maintenance*, may have an association with less negative feelings about being gay).

Furthermore, the results of this study contribute new knowledge to the research on masculine gender role conflict, sexual identity and anthrozoology by suggesting a possible influence of men's sexual identity and societal ideals of masculinity and femininity associated with living with companion animals on the determination of how men attach to companion animals.

In summary, this study supports and expands existing knowledge on attachment to companion animals, as well as indicating that gay men's attachment to companion animals has effects on the lessening gay men's self-restrictions on expressing emotions to other people, their internalised masculine social conflict and conflict associated with not accepting their sexual identity. This study also invites future research to examine how socialised ideals of masculinity and femininity on living with companion animals and men's sexual identity may influence attachment to companion animals. These implications warrant further exploration in future studies and, hopefully, will contribute to expanding the understanding of the benefits of human-animal bonding for improving psychological functioning and wellbeing in gay men.

4.3 Limitations

This study has several limitations. Having used convenience sampling, participants may not be representative of the entire community of gay men in Australia. Also, as a

correlational study, only relational inferences can be made and further explanations based on causational analyses are merely hypothetical. Participants were required to identify themselves as gay men, which reduces the participation of homosexual men who have not come out or do not feel comfortable using such identification. The scales Intimacy and Restrictive Affectionate Behaviour Between Men obtained low reliabilities (Cronbach's alpha) which may limit confidence in the results. In the cases where significant associations where found, the effect sizes were small which implies that a broader sample size was required to increase the power. In addition, this is a human-animal interaction study and it is known that companion animal studies have methodological considerations and may be flooded with factors such as vested interests, possible unconscious biases introduced by researchers who are mostly animals lovers and strongly believe in the positive impact of the human-animal bond, and cross-sectional study designs that cannot explain results over time. Furthermore, articles are usually published with limited information about the relevant intricacies of the human-animal relationship and, therefore, it is difficult to contextualise their findings (Chur-Hansen et al., 2009; Herzog, 2011). Finally, we did not explore aspects such as (a) when men accepted themselves as gay men; (b) the duration or quality of their relationship with their companion animals; (c) men's attachment style; (d) men's availability and adequacy of social support; and (e) the influence of societal ideals of masculinity and femininity associated with living with companion animals. All of these aspects limited further analyses.

4.4 Future research

This study set the stage for further exploration in the areas of psychological wellbeing, masculinity and men's bonding with companion animals. Perhaps one of the most relevant areas to explore is whether it is accurate to suggest that attachment to companion animals has implications for improving: (a) gay men's self-acceptance, (b) their abilities to cope with internalised conflict due to maleness, and (c) their psychological wellbeing. Future

research should also explore the factors not fully considered in this study, such as aging, when participants came out as gay men, the duration and quality of the relationship with the companion animal, men's attachment style, and the qualities of the social support received by the participants. Qualitative studies, mixed methods, and longitudinal research are suggested methodologies for further explorations. These suggestions are based on the need for understanding possible causation effects, the underlying factors affecting the dynamics of the variables explored in this study, as well as possible changes in the outcome of the interactions between the variables over time. Alternative recruiting approaches should be followed to look out for: (a) marginalised gay men; (b) homosexual men who are not comfortable identifying as gay men; and (c) young men who are forming their gender identity and could be dealing with the challenges associated with coming out as gay men.

Replication studies should aim for broader samples and explore differences between men considering a wider spectrum of male sexual identities. It is known that heterosexual and gay men internalise masculine ideals and bond with companions animals differently (O'Neil et al., 2016; Walsh, 2009); therefore, it is important to understand if bonding with companion animals has different implications for men in the context of masculinity conflict and a broader spectrum of sexual identities.

Finally, if attachment to companion animals is demonstrated to have positive implications for improving gay men's wellbeing in the context of masculinity in Australian society, it would be of significant value for further research to explore how this knowledge could be used when practising therapeutic and health interventions.

4.5 Conclusion

Companion animals have played, and most likely will continue playing, a fundamental role in the life of humans in the future. In particular, they seemed to have an

even more important role in the lives of those who need physical and/or emotional support. This study aimed to explore how attachment to companion animals could be related to some of the possible psychological conflicts experienced by gay men in a society mostly driven by masculine ideals and where sexual minorities experience higher risk of psychological injury. Despite these effects, research on companion animals is inconclusive for multiple reasons. Negative and positive outcomes have been indicated as the result of the human-animal interaction, but the overall balance seems to suggest that bonding with companion animals may have implications for improving human wellbeing. This study emphasises the importance of conducting deeper and broader investigations in this area as the mutual benefits of the inter-species interaction are not yet fully demonstrated. Hopefully, in the not-too-distant future, studies will be able to elucidate paths for an inter-species coexistence that promotes an enhanced wellbeing for all.

References

- Albert, A., & Bulcroft, K. (1988). Pets, families, and the life course. *Journal of Marriage and the Family*, 50(2), 543-552. doi: 10.2307/352019
- Animals Medicines Australia. (2016). Pet Ownership in Australia 2016 Retrieved September 20, 2017, from http://animalmedicinesaustralia.org.au/pet-report/
- Australian Human Rights Commission. (2014). Face the facts: Lesbian, Gay, Bisexual, Trans and Intersex People 2014. Retrieved April 20, 2017, from https://www.humanrights.gov.au/face-facts-lesbian-gay-bisexual-trans-and-intersex-people
- Barker, S. B., & Wolen, A. R. (2008). The benefits of human-companion animal interaction:

 A review. *Journal of Veterinary Medical Education*, *35*(4), 487-495. doi:

 10.3138/jvme.35.4.487
- Bartone, A. (2014). *Man's clearest mirror: Exploring how the human-animal bond affects*men in a relational way. (Doctor of Philosophy in Psychology.), Tennessee State

 University, ProQuest LLC.
- Batejan, K. L., Jarvi, S. M., & Swenson, L. P. (2015). Sexual orientation and non-suicidal self-injury: A meta-analytic review. *Archives of Suicide Research*, 19(2), 131-150. doi: 10.1080/13811118.2014.957450
- Blazina, C., & Kogan, L. R. (2016). *Men and their dogs: A new understanding of man's best friend* (1 ed. Vol. 1): Springer International.
- Blazina, C., & Watkins, C. (2000). Separation/individuation, parental attachment, and male gender role conflict: Attitudes toward the feminine and the fragile masculine self.

 *Psychology of Men & Masculinity, 1(2), 126-132. doi: 10.1037/1524-9220.1.2.126
- Bowlby, J. (1958). The nature of the child's tie to his mother. *The International journal of psycho-analysis*, 39(5), 350-373.

- Bretherton, I. (1992). The Origins of Attachment Theory: John Bowlby and Mary Ainsworth.

 *Developmental Psychology, 28(5), 759-775. doi: 10.1037//0012-1649.28.5.759
- Budge, R. C., Spicer, J., Jones, B. R., & George, R. S. (1996). The influence of companion animals on owner perception: Gender and species effects. *Anthrozoos*, *9*(1), 10-18.
- Budge, R. C., Spicer, J., StGeorge, R., & Jones, B. R. (1997). Compatibility stereotypes of people and pets: A photograph matching. *Anthrozoos*, *10*(1), 37-46.
- Chakraborty, A., McManus, S., Brugha, T. S., Bebbington, P., & King, M. (2011). Mental health of the non-heterosexual population of England. *British Journal of Psychiatry*, 198(2), 143-148. doi: 10.1192/bjp.bp.110.082271
- Chur-Hansen, A. (2010). Grief and bereavement issues and the loss of a companion animal:

 People living with a companion animal, owners of livestock, and animal support

 workers. *Clinical Psychologist*, 14(1), 14-21. doi: 10.1080/13284201003662800
- Chur-Hansen, A., Winefield, H., & Beckwith, M. (2008). Reasons given by elderly men and women for not owning a pet, and the implications for clinical practice and research. *Journal of Health Psychology*, *13*(8), 988-995. doi: 10.1177/1359105308097961
- Chur-Hansen, A., Winefield, H. R., & Beckwith, M. (2009). Companion animals for elderly women: The importance of attachment. *Qualitative Research in Psychology*, 6(4), 281-293. doi: 10.1080/14780880802314288
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155-159. doi: 10.1037/0033-2909.112.1.155
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. doi: 10.1007/BF02310555
- Crowne, D. P., & Marlowe, D. (1960). New scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349-354. doi: 10.1037/h0047358

- Ervin, A. M. (2005). Male gender role conflict and internalized homonegativity: The impact on gay men's psychological well-being. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 65(7-B), 3704.
- Good, G. E., Robertson, J. M., O'Neil, J. M., Fitzgerald, L. F., Stevens, M., DeBord, K. A., . .
 Braverman, D. G. (1995). Male gender role conflict: Psychometric issues and relations to psychological distress. *Journal of Counseling Psychology*, 42(1), 3-10. doi: 10.1037/0022-0167.42.1.3
- Herzog, H. A. (2011). The impact of pets on human health and psychological well-being: Fact, fiction, or hypothesis? *Current Directions in Psychological Science*, 20(4), 236-239. doi: 10.1177/0963721411415220
- Herzog, H. A., Betchart, N. S., & Pittman, R. B. (1991). Gender, sex role orientation, and attitudes toward animals. *Anthrozoos*, 4(3), 184-191. doi: 10.2752/089279391787057170
- Holcomb, R., Williams, R., & Richards, P. (1985). The elements of attachment: Relationship maintenance and intimacy. *Journal of the Delta Society*, 2(1), 28-34.
- Irvine, L. (2012). Sociology and anthrozoology: symbolic interactionist contributions. *Anthrozoos*, 25(SUP), 123-137.
- Jackman, K., Honig, J., & Bockting, W. (2016). Nonsuicidal self-injury among lesbian, gay, bisexual and transgender populations: an integrative review. *Journal of Clinical Nursing*, 25(23-24), 3438-3453. doi: 10.1111/jocn.13236
- Julius, H. (2013). Attachment to Pets: an Integrative View of Human-Animal Relationships with Implications for Therapeutic Practice. USA: Hogrefe.
- Kurdek, L. A. (2009). Pet dogs as attachment figures for adult owners. *Journal of Family Psychology*, 23(4), 439-446. doi: 10.1037/a0014979

- McConnell, A. R., Brown, C. M., Shoda, T. M., Stayton, L. E., & Martin, C. E. (2011).

 Friends with benefits: On the positive consequences of pet ownership. *Journal of Personality and Social Psychology*, 101(6), 1239-1252. doi: 10.1037/a0024506
- McDermott, R. C., & Schwartz, J. P. (2013). Toward a better understanding of emerging adult men's gender role journeys: Differences in age, education, race, relationship status, and sexual orientation. *Psychology of Men and Masculinity*, *14*(2), 202-210. doi: 10.1037/a0028538
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior*, 36(1), 38-56. doi: 10.2307/2137286
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, *129*(5), 674-697. doi: 10.1037/0033-2909.129.5.674
- Meyer, I. H. (2007). The Health of Sexual Minorities Public Health Perspectives on Lesbian, Gay, Bisexual and Transgender Populations (Vol. 4): Springer US.
- Miller, D., Staats, S., & Partlo, C. (1992). Discriminating positive and negative aspects of pet interaction: Sex differences in the older population. *Social Indicators Research*, 27(4), 363-374. doi: 10.1007/BF00303855
- Mitchell, R. W., & Ellis, A. L. (2013). Cat person, dog person, gay, or heterosexual: The effect of labels on a man's perceived masculinity, femininity, and likability. *Society & Animals*, 21(1), 1-16. doi: 10.1163/15685306-12341266
- Mohr, J. J., & Fassinger, R. (2000). Measuring dimensions of lesbian and gay male experience. *Measurement & Evaluation in Counseling & Development*, 33(2), 66.
- Mohr, J. J., & Kendra, M. S. (2011). Revision and extension of a multidimensional measure of sexual minority identity: The lesbian, gay, and bisexual identity scale. *Journal of Counseling Psychology*, 58(2), 234-245. doi: 10.1037/a0022858

- Moradi, B., Mohr, J. J., Worthington, R. L., & Fassinger, R. E. (2009). Counseling psychology research on sexual (orientation) minority issues: Conceptual and methodological challenges and opportunities. *Journal of Counseling Psychology*, 56(1), 5-22. doi: 10.1037/a0014572
- Moreland, J. (1980). Age and change in the adult male sex role. *Sex Roles*, 6(6), 807-818. doi: 10.1007/BF00287236
- O'Neil, J. M. (2008). Summarizing 25 years of research on men's gender role conflict using the gender role conflict scale: New research paradigms and clinical implications. *The Counseling Psychologist*, *36*(3), 358-445. doi: 10.1177/0011000008317057
- O'Neil, J. M. (2013). Gender role conflict research 30 years later: An evidence-based diagnostic schema to assess boys and men in counseling. *Journal of Counseling and Development*, 91(4), 490-498. doi: 10.1002/j.1556-6676.2013.00122.x
- O'Neil, J. M., Helms, B. J., Gable, R. K., David, L., & Wrightsman, L. S. (1986). Gender-role conflict scale: College men's fear of femininity. *Sex Roles*, *14*(5-6), 335-350. doi: 10.1007/BF00287583
- O'Neil, J. M., Denke, R., & Blazina, C. (2016). Gender role conflict theory, research, and practice: Implications for understanding the human–animal bond. *Men and Their Dogs: A New Understanding of Man's Best Friend* (pp. 11-46). USA: Springer.
- Payne, E., Bennett, P. C., & McGreevy, P. D. (2015). Current perspectives on attachment and bonding in the dog–human dyad. *Psychology Research and Behavior Management*, 8, 71-79. doi: 10.2147/PRBM.S74972
- Putney, J. M. (2014). Older lesbian adults' psychological well-being: The significance of pets. *Journal of Gay & Lesbian Social Services*, 26(1), 1-17. doi: 10.1080/10538720.2013.866064

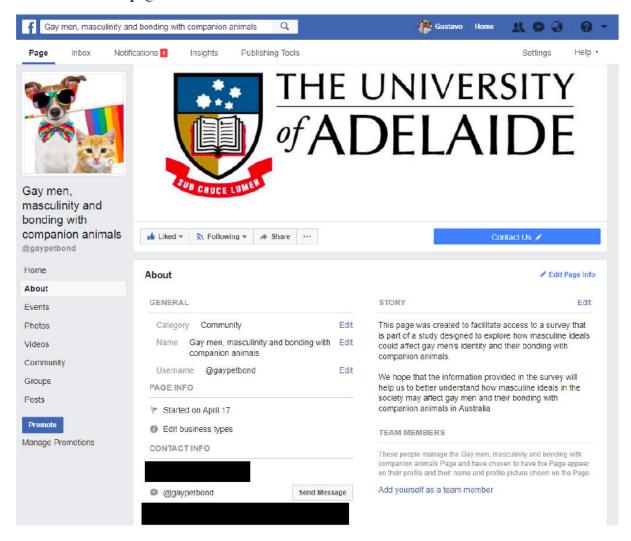
- Ramirez, M. (2006). "My dog's just like me": Dog ownership as a gender display. *Symbolic Interaction*, 29(3), 373-391. doi: 10.1525/si.2006.29.3.373
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne social desirability scale. *Journal of Clinical Psychology*, *38*(1), 119-125. doi: 10.1002/1097-4679(198201)38:1<119::aid-jclp2270380118>3.0.co;2-i
- Richmond, R. (2013). Pet ownership in Australia. *Australian Veterinary Journal*, *91*(11). doi: 10.1111/j.1751-0813.2013.000111.GRP.x
- Rockett, B., & Carr, S. (2014). Animals and attachment theory. *Society & Animals*, 22(4), 415-433. doi: 10.1163/15685306-12341322
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*, 141-166. doi: 0066-4308/01/0201-0141
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719-727.
- Sanchez, F. J., Westefeld, J. S., Liu, W. M., & Vilain, E. (2010). Masculine gender role conflict and negative feelings about being gay. *Professional Psychology, Research and Practice*, 41(2), 104-111. doi: 10.1037/a0015805
- Siniscalchi, M., Stipo, C., & Quaranta, A. (2013). "Like owner, like dog": Correlation between the owner's attachment profile and the owner-dog bond. *PloS One*, 8(10). doi: 10.1371/journal.pone.0078455
- Skerrett, D. M., Kolves, K., & De Leo, D. (2015). Are LGBT populations at a higher risk for suicidal behaviors in Australia? Research findings and implications. *Journal of Homosexuality*, 62(7), 883-901. doi: 10.1080/00918369.2014.1003009

- Slatter, J., Lloyd, C., & King, R. (2012). Homelessness and companion animals: More than just a pet? *The British Journal of Occupational Therapy*, 75(8), 377-383. doi: 10.4276/030802212X13433105374350
- Suthers-McCabe, H. M. (2001). Take one pet and call me in the morning. *Generations*, 25(2), 93-95. doi: 1P3-76555611
- Tavakol, M., & Dennick, R. (2011). Making sense of cronbach's alpha. *International Journal of Medical Education*, 2, 53-55. doi: 10.5116/ijme.4dfb.8dfd
- Topál, J., Miklósi, Á., Csányi, V., & Dóka, A. (1998). Attachment Behavior in Dogs (Canis familiaris): A New Application of Ainsworth's (1969) Strange Situation Test. *Journal of Comparative Psychology*, 112(3), 219-229. doi: 10.1037/0735-7036.112.3.219
- Walsh, F. (2009). Human-animal bonds I: The relational significance of companion animals. Family Processes, 48(4), 462-480. doi: 10.1111/j.1545-5300.2009.01296.x
- Wester, S. R., Pionke, D. R., & Vogel, D. L. (2005). Male gender role conflict, gay men, and same-sex romantic relationships. *Psychology of Men & Masculinity*, 6(3), 195-208. doi: 10.1037/1524-9220.6.3.195
- Wester, S. R., Vogel, D. L., O'Neil, J. M., & Danforth, L. (2012). Development and evaluation of the gender role conflict scale short form (GRCS-SF). *Psychology of Men & Masculinity*, *13*(2), 199-210. doi: 10.1037/a0025550
- Winefield, H. R., Black, A., & Chur-Hansen, A. (2008). Health effects of ownership of and attachment to companion animals in an older population. *International Journal of Behavioral Medicine*, 15(4), 303-310. doi: 10.1080/10705500802365532
- Wood, L., Giles-Corti, B., & Bulsara, M. (2005). The pet connection: Pets as a conduit for social capital? *Social Science and Medicine*, 61(6), 1159-1173. doi: 10.1016/j.socscimed.2005.01.017

- Wood, L., Martin, K., Christian, H., Houghton, S., Kawachi, I., Vallesi, S., & McCune, S. (2017). Social capital and pet ownership A tale of four cities. *SSM Population Health*, *3*, 442-447. doi: 10.1016/j.ssmph.2017.05.002
- Wood, L., Martin, K., Christian, H., Nathan, A., Lauritsen, C., Houghton, S., . . . McCune, S. (2015). The pet factor companion animals as a conduit for getting to know people, friendship formation and social support. *PloS One*, *10*(4), 17. doi: 10.1371/journal.pone.0122085

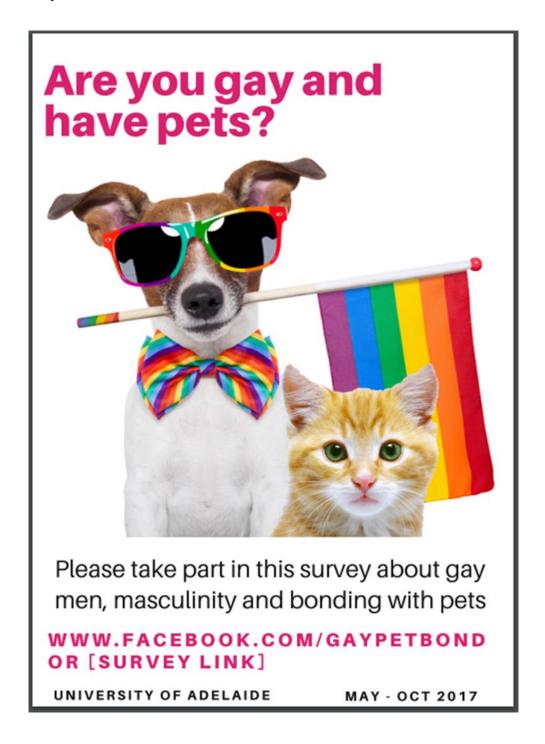
Appendix A

Facebook page



Appendix B

Study advertisement



Appendix C

Facebook groups:

- 2016 Honours Psychology/Psychological Science at University of Adelaide
- 2017 Honours Psychological Science at the University of Adelaide
- Animal Assisted Play TherapyTM
- Animal Movement ~ AUSTRALIA
- Bengals Australia Pet Owners
- Bi-gay Australia
- Everything Pets Perth Western Australia
- Gay & Bi Men
- Gay & Bi Men (Victoria/Australia)
- Gay & Sober Australia
- Gay (Adelaide/South Australia)
- GAY (TASMANIA/ AUSTRALIA)
- Gay And Bi Men @ Sydney Australia
- GAY Aussies Downunder
- Gay Australia
- GAY AUSTRALIA Events & News
- GAY BD USA CANADA AUSTRALIA GROUPS
- Gay BDSM Australia
- Gay Canberra (ACT)+NSW (Australia)
- Gay Dads Australia
- Gay Dads New South Wales (Australia)

- Gay Dads South Australia
- Gay Dads Western Australia
- Gay Dating Australia/ NZ
- Gay Elders of Australia
- Gay Intended Parents Australia
- Gay Melbourne
- Gay Men with Pets Australia
- Gay Men's Fitness Australia
- Gay Newcastle (Australia)
- Gay Swingers of Melbourne, Australia
- Gay Travel Australia (LGBTIQ)
- Human-Animal bond lovers
- IGRA Gay Rodeo Australia
- Lost Gay Newcastle, Australia
- NG Mates, Melbourne Australia
- Older Single Gay Men In Australia
- Pet Events Australia
- Pet Mouse Fanciers Group Australia
- Sydney Campaign for Marriage Equality

Appendix D

Survey

Information sheet

You are invited to participate in a survey about masculine ideals and animal bonding. This study is open to English-speaking self-identified gay men who are pet owners, live in Australia and aged over 18 years.

Researchers

This project is being undertaken by

B. Honours of Psych candidate at the University of Adelaide, supervised by Prof.

This study has been granted approval by the Human Research Ethics Committee at the University of Adelaide - Number 17/59

Do I have to take part?

No, participation in this study is completely voluntary. If you decide to take part you are not obligated to complete the questionnaire and you may withdraw at any time.

What will I have to do?

If you agree to take part, you will be asked to provide demographic information and will then be asked some questions about masculine ideals in Australia and relationship with your pet(s). It should take approximately 10 minutes to complete this survey.

What are the possible benefits?

We hope the information provided in this survey will help us to better understand how masculine ideals relate to the human-animal bonding in the gay community in Australia. In taking part, you may feel a sense of satisfaction in knowing that your involvement will help us with expanding psychological knowledge.

What are the possible risks, side effects, and/or discomforts?

We do not expect there to be any risks or side effects to taking part in this study. However, it is possible that some of the items in the questionnaire may help you identify areas of difficulty or feelings you had not considered before, and this may cause some distress. Immediate support can be found through contacting any of the following two organisations: Beyond blue at 1300 22 4636 (https://www.beyondblue.org.au) or/and QLife at 1800 184 527 (https://qlife.org.au/). Should you require any further support, please contact your General Practitioner.

What will happen to the information about me?

Data will be collected using an online survey and then will be transferred to a data file for analysts. This information will remain confidential and will only be used for the purpose of this research project. The results of this study will be written into a research report in partial fulfillment of the Honours of Psychology degree, and may go on to be submitted for publication. The data collected in this study will be stored securely and confidentially at the University of Adelaide for a period of 5 years and will then be destroyed.

Can I receive a copy of the results of this project?

Yes, if you would like to receive information about the results, you will be sent a summary via email once all data has been collected. Just leave your email address when prompted at the end of this study.

If you have any difficulty understanding the information provided here or have questions about this research project please contact:

Gustavo Garcia

B. Honours of Psychology Candidate
School of Psychology
The University of Adelaide SA 5005

Email: gustavo.garciaarismendi@student.adelaide.edu.au

Professor Anna Chur-Hansen
Professor Deborah Turnbull
Professor Deboran Turnbull
For information regarding the independent complaints procedure visit: http://www.adelaide.edu.au/research-services/oreci/human/applications/ or contact: +61 8 8313 6028 / hrec@adelaide.edu.au

Pre-survey screen
* 1. Are you 18 years old or over?
Yes
○ No
* 2. Are you an Australian citizen or Australian permanent resident who has lived in the county during the last 12 months?
Yes
○ No
* 3. What is your gender?
Female
Male
Other
* 4. Do you identify yourself as Gay (homosexual)?
Yes
○ No
* 5. Have you owned at least one pet during the last 12 months?
Yes
○ No

Demographic information
* 6. What is your age?
18 to 24
25 to 34
35 to 44
45 to 54
55 to 64
65 to 74
75 or older
* 7. What was the primary language spoken in your childhood home? (Please choose only one.)
○ English
Chinese (Cantonese, Mandarin, others)
(Italian
Greek
Arabic
Vietnamese
German
Spanish
Macedonian
Tagalog (Filipino)
Other/multiple languages (please specify)

* 8. Ple	ase select the Australian State where you reside
(A	ustralian Capital Territory
O N	ew South Wales
O No	orthern Territory
() Q	ueensland
() Sc	outh Australia
○ Та	asmania
O Vi	ictoria
() W	/estern Australia
* 9. Wh	at is the highest level of school you have completed or the highest degree you have received?
○ Le	ess than high school degree
() Hi	igh school degree or equivalent
O C	ertificate/diploma
O U	niversity degree - undergraduate (e.g. Bachelor degree)
O U	niversity degree - postgraduate (e.g. Masters of PhD)
* 10. W	hich of the following categories best describes your employment status?
() Er	mployed, working full-time
○ Er	mployed, working part-time
O No	ot employed, looking for work
O No	ot employed, NOT looking for work
O Re	etired
O Di	isabled, not able to work

* 11. What is your approximate average household income?
\$0-\$24,999
\$25,000-\$49,999
\$50,000-\$74,999
\$75,000-\$99,999
\$100,000-\$124,999
\$125,000-\$149,999
\$150,000-\$174,999
\$175,000-\$199,999
\$200,000 and up
* 12. Which of the following best describes your current relationship status?
Married
Widowed
Divorced
Separated
In a domestic partnership or civil union
Single, but cohabiting with a significant other
Single, never married
* 13. How many people currently live in your household?
* 14. Do you have any children under 18 living in your household?
Yes
○ No
Prefer not to say
* 15. How many pets currently live in your household?

* 16. Which type of pet(s) do you currently have? (Check all that apply)	_
Bird(s)	
Dog(s)	
Cat(s)	
Fish(es)	
Horse(s)	
Reptile(s)	
Other (please specify)	

	GRCS-SF						
*	17. Please respond to t		w using the in		200000000		
		Strongly disagree 1	Disagree 2	Moderately disagree 3	Moderately agree 4	Agree 5	Strongly agree
	Affection with other men makes me tense	0	0	0	0	0	0
	Talking (about my feelings) during sexual relations is difficult for me	0	0	0	0	0	0
	I have difficulty expressing my emotional needs to my partner	0	0	0	0	0	0
	Men who touch other men make me uncomfortable	0	0	0	0	0	\bigcirc
	5. Finding time to relax is difficult for me	0	0	0	0	0	0
	 I have difficulty expressing my tender feelings 	0	0	0	0	0	0
	7. Hugging other men is difficult for me	0	0	0	0	0	0
	Winning is a measure of my value and personal worth	0	0	0	0	0	0
	My need to work or study keep me from my family or leisure more than I would like	0	0	0	0	0	0
	10. I strive to be more successful than others	\bigcirc	0	\circ	0	0	\circ
	11. I do not like to show my emotions to others people	0	0	0	0	0	0
	12. My work or school often disrupts other parts of my life (home, health, leisure)	0	0	0	0	0	0

	Strongly disagree 1	Disagree 2	Moderately disagree 3	Moderately agree 4	Agree 5	Strongly agree	
13. Being very personal with other men makes me feel uncomfortable	0	0	0	0	0	0	
14. Being smarter or physically stronger than other men is important to me	0	0	0	0	0	0	
15. Overwork and stress, caused by a need to achieve on the job or in school, affects/ hurts my life	0	0	0	0	0	•	
16. I like to feel superior to other people	0	0	0	\bigcirc	0	\circ	

ı	LBGIS (IHS)						
	* 18. For each of the following questions, please mark the response that best indicates your current experience as an Lesbian, Gay or Bisexual (LGB) person. Please be as honest as possible: Indicate how you really feel now, not how you think you should feel. There is no need to think too much about any one question. Answer each question according to your initial reaction and then move on to the next. "Some of you may prefer to use labels other than 'lesbian, gay, and bisexual' to describe your sexual orientation (e.g., 'queer,' 'dyke,' 'questioning'). We use the term LGB in this survey as a convenience, and					Indicate how out any one ext.	
1	we ask for your underst	tanding if the	term does not	completely cap	ture your sexua	al identity."	
		Disagree Strongly 1	Disagree 2	Disagree Somewhat 3	Agree Somewhat 4	Agree 5	Agree Strongly 6
	If it were possible, I would choose to be straight	0	0	0	0	0	0
	2. I wish I were heterosexual	0	0	0	0	0	0
	I believe it is unfair that I am attracted to people of the same sex	0	0	0	0	0	0

PAS							
* 19. Please read the following statements and select the option that best describes your opinon. If you have more than one pet, please answer these questions with regard to the one you feel closest to.							
more than one pet, pleas	Almost always	Often	Sometimes	Almost Never			
4 Marthia constantin	1	2	3	4			
Within your family, your pet likes you best	0	0	0	0			
You are too busy to spend time with your pet	0	0	0	0			
You spend time each day playing with or exercising your pet	0	0	0	0			
Your pet comes to greet you when you arrive	0	0	0	0			
5. You talk to your pet as a friend	0	0	0	0			
Your pet is aware of your different moods	0	0	0	0			
Your pet pays attention and obeys you quickly	0	0	0	0			
You confide in your pet	0	0	0	0			
You play with your pet when he/she approaches	0	0	0	0			
10. You spend time each day training your pet	0	0	0	0			
11. You show photos of your pet to your friends	0	0	0	0			
12. You spend time each day grooming your pet	\circ	0	0	0			
13. You ignore your pet when he/she approaches	0	0	0	0			
14. When you come home, your pet is the first one you greet	0	0	0	0			
15. Your pet tries to stay near by following you	0	0	0	0			

	Almost always 1	Often 2	Sometimes 3	Almost Never
16. You buy presents for your pet	0	0	\circ	0
17. When you feel bad, you seek your pet for comfort	0	0	0	0
18. You prefer to be with your pet more than with most people you know	0	0	0	0
19. When your pet misbehaves, you hit him/her	0	0	0	0
20. Your pet is a nuisance and a bother to you	0	0	0	0
21. You consider your pet to be a member of your family	0	0	0	0
22. You like to touch and stroke your pet	0	0	0	0
23. You feel sad when you are separated from your pet	0	0	0	0
24. You like to have your pet sleep near your bed	0	\circ	0	0
25. You like to have your pet sleep on your bed	0	0	0	0
26. You have your pet near you when you study, read, or watch TV	0	0	0	0
27. You don't like your pet to get too close to you	0	0	0	0
20. Do you consider you Yes No Uncertain	irself to be your pet(s) primary caregiver	?	

SDS-SF		
		nal attitudes and traits. Read each item and
decide whether the statement	is true or false as it pertains to yo	ou.
	True 1	False 2
It is sometimes hard for me to go on with my work if I am not encouraged.	0	0
I sometimes feel resentful when I don't get my own way.	0	0
On a few occasions, I have given up doing something because I thought too little of my ability	0	•
There have been times when I felt like rebelling against people in authority even though I knew they were right	0	0
No matter who I'm talking to, I'm always a good listener	0	0
 There have been occasions when I took advantage of someone. 	0	О
 I'm always willing to admit it when I make a mistake. 	0	0
I sometimes try to get even, rather than forgive and forget	0	0
I am always courteous, even to people who are disagreeable	0	0
10. I have never been irked when people expressed ideas very different from my own	0	0

	True	False	
11. There have been times when I was quite	1	2	
jealous of the good fortune of others	0	0	
12. I am sometimes irritated by people who ask favours of me	0	0	
13. I have never deliberately said something that hurt someone's feelings	0	•	

Thank you!		
22. Thank you very much for taking the time to complete this survey!		
Your responses are very valuable to us and we strongly appreciate your time.		
If you would like to receive information about the results of this study when it is complete, please leave your email address in the box below.		
Otherwise, please click DONE to finish the survey		
If completing this survey has brought up any issues for you, immediate support can be found through contacting any of the following two organizations: Beyond blue at 1300 22 4636 (https://www.beyondblue.org.au) or/and QLife at 1800 184 527 (https://qlife.org.au/). Should you require any further support, please contact your General Practitioner.		
Email Address:		

Appendix E

Histograms

