Canine comfort: Pet affinity buffers the negative impact of ambivalence over emotional expression on perceived social support

Jennifer L. Bryan *, Michelle C. Quist, Chelsie M. Young, Mai-Ly N. Steers, Dawn W. Foster, Qian Lu

Department of Psychology, University of Houston, Houston, TX 77204-5022, United States

Abstract

This study evaluated pet affinity as a buffer between ambivalence over emotional expression (AEE) and social support. AEE occurs when one desires to express emotions but is reluctant to do so and is related to negative psychological outcomes. Individuals high in AEE may have difficulty receiving social support and thus may not gain accompanying benefits. Social support has been associated with positive health outcomes, and pet support is positively associated with human social support. The present study explores the potential protective effect of pet affinity. One hundred ninety-eight undergraduate dog owners completed measures assessing perceived social support, pet affinity, and AEE. AEE was expected to be negatively associated with social support, and pet affinity was expected to buffer the negative effects of AEE on social support. We found that AEE was negatively associated with perceived social support. An interaction between pet affinity and AEE emerged such that the negative association between AEE and social support was weaker among those higher in pet affinity. Thus, at high levels of AEE, those who felt a close connection with their pets reported more perceived social support than those less connected with their pets. Overall, these findings emphasize the potential benefits of pet affinity.

1. Introduction

Pets are an integral part of many people’s lives, and much research has been done on the positive health benefits of engaging with pets, whether it is only for a few minutes or throughout a lifetime. The positive outcomes that result from close interactions with pets have been shown to be mostly supportive in nature; the mere presence of a pet can decrease mental stress (Allen, Shykoff, & Izzo, 2001), elevate mood (Coakley & Mahoney, 2009), and increase confidence in a caregiver (Schneider & Harley, 2006). In one study, the supportive benefits of pet affinity were demonstrated to go beyond even that of close relationships with humans (Allen, Blascovich, & Mendes, 2002). In light of the supportive role of pets, the present research seeks to explore how pet affinity might benefit those who have trouble expressing emotions and gaining social support. Specifically, we will examine how pet affinity might moderate the negative relationship between ambivalence over emotional expression (AEE) and social support.

Social support is defined by Thoits (2010) as “emotional, informational, or practical assistance from significant others, such as family members, friends, or coworkers; support actually may be received from others or simply perceived to be available when needed” (p. S46). Past research has demonstrated that social support has been associated with positive benefits for both physical and mental health in relation to depression, anxiety, cancer, AIDS/HIV, and daily stressors (Cobb, 1976; Nurullah, 2012). Those who feel a lack of social support suffer negative consequences in well-being and mental and physical health. Research has shown that a lack of social support predicts stress, depression (Pauley & Hesse, 2009), and an increased likelihood of developing coronary heart disease (Barth, Schneider, & Von Känel, 2010).

One population that seems to be particularly vulnerable to a lack of social support are individuals who are high in ambivalence over emotional expression (AEE). AEE results from a conflict in which one wants to express one’s feelings, but is afraid of the consequences that may result (King & Emmons, 1990). Those who are high in AEE report a whole host of negative outcomes such as: psychological distress (Katz & Campbell, 1994; King, 1998; Tucker, Winkelman, Katz, & Bermas, 1999), depression, obsessive–compulsive tendencies, anxiety, paranoid ideation, psychotism (King & Emmons, 1990, 1991), poor interpersonal functioning (e.g., less marital satisfaction; King, 1993), and fear of intimacy (Emmons & Colby, 1995). Similar to social support, the effects are not limited to mental well-being; those who are high in AEE also demonstrate negative physical side effects. Patients high in AEE reported more...
physical symptomatology in general (King & Emmons, 1990, 1991), and gastrointestinal cancer patients high in AEE reported more pain, poorer quality of life and emotional well-being, lower social functioning, and engaged in more pain catastrophizing relative to those lower in AEE (Porter, Keefe, Lipkus, & Hurwitz, 2005). AEE has mainly been examined as a stable trait; however, AEE may be influenced by environment and culture. For example, Lu and Stanton (2010) demonstrated that Asians had higher AEE compared with Caucasians, because Asian cultures often discourage public emotion expression.

The negative link between AEE and social support is well documented in a variety of populations. Emmons and Colby (1995) found that college students who were low in AEE tended to also be low in social support. A large national study found that AEE was negatively linked to social support among postmenopausal women (Michael et al., 2006), and a European study found that high levels of AEE was associated with lower social functioning (including support) in Dutch rheumatoid arthritis patients (van Middendorp et al., 2005).

The conceptual basis for this negative relationship between AEE and social support has been the subject of speculation by many researchers. King and Emmons (1990) state that those who are high in AEE tend to overread and overthink others’ emotions. This excessive rumination over others’ emotions often leads to psychological distress. Furthermore, Lu, Uysal, and Teo (2011) hypothesized that those with high levels of AEE may feel helpless about this distress, and given their relative inability to express their emotions, they have little recourse to resolve the situation. It may also be that those with high levels of AEE are confused about their own emotions, and therefore experience conflict over whether to express them or not. A third possibility is that AEE prevents people from using social support as a coping mechanism, which leaves them with fewer strategies to manage stressful life events. Emmons and Colby (1995) found that those high in AEE tended to utilize avoidant coping styles, and also tended to report negative attitudes toward social support. It is also possible that a lack of social support could lead an individual to experience more AEE as they are unsure of how to express themselves in social situations.

The inability to predict how other people will react to self-expression can lead to hesitancy to disclose emotions to others, as well as a tendency to regret self-disclosure that was perceived to be too revealing. Past research has negatively linked self-disclosure and closeness for people with high social anxiety (Kashdan, Volkman, Breen, & Han, 2007), which may function in a similar way to AEE in regards to close relationships. Along with the poorer interpersonal functioning (King, 1993) and fear of intimacy (Emmons & Colby, 1995) mentioned previously as negative outcomes for those who are high in AEE, it was also found that self-authenticity moderated the negative association between relationship satisfaction and emotion suppression. This research demonstrated that the incongruence between one’s self and his or her emotional expression was the key aspect of the internal conflict (English & John, 2013). Thus, other means of deriving social support should be explored in domains in which a person can act completely authentically, without fear of social repercussions from emotional expression.

The particular domain that this study aims to explore is the supportive role of pets, and whether they can provide a source of non-judgmental social support. There is consistent evidence in current literature of positive benefits resulting from the presence of pets across a variety of populations. Several studies show physical benefits such as improved cardiovascular health and decreased physiological stress from interactions with animals and pets (dogs especially; Albert & Bulcroft, 1988; Brown, 1999; Giaquinto & Valentini, 2009; Zasloff, 1996). In addition, the presence of dogs during psychotherapy sessions has been shown to increase patients’ positive views of their therapists as well as their willingness to disclose information (Schneider & Harley, 2006). Another study demonstrated that hypertensive stockbrokers who adopted a pet cat or dog experienced reduced physiological reactions to mental stress, compared to their control counterparts who did not adopt a pet (Allen et al., 2001). Furthermore, hospitalized patients experienced an increase in vitality, better mood, and a decrease in pain and respiratory rates when they were visited by dogs (Coakley & Mahoney, 2009).

Researchers have also shown that in some cases, pets can fill a supportive role similar to the role typically filled by other people. In one study, pet owners were found to have lower blood pressure, lower heart rate, lower cardiovascular reactivity, and faster recovery when their pets were present during a stressful math task or a cold pressor task. Of particular interest, when participants performed the math task in front of their spouse, their blood pressure and heart rate increased; however, when their pet was brought in, their reactivity significantly decreased (Allen et al., 2002). This demonstrates that, in some cases, pets can provide non-judgmental social support, potentially greater than close others. Similarly, a study revealed that college freshmen felt they would benefit from pet therapy specifically because of the associated social support. The students reported viewing their pets as family members that would provide support and comfort in stressful times (Adams, Carlson, & Riley, 2009).

Given all of this evidence of the supportive, non-judgmental role of pets in emotional well-being and social support, the present study was designed to evaluate the relationship between AEE and social support by considering pet affinity (operationalized in this study as the degree to which people value interactions with pets, derived from the Pet Attitude Scale; Templar, Salter, Dickey, Baldwin, & Veleber, 1981) as a potential moderator. The first and second hypotheses predicted (respectively) that AEE would be negatively associated with social support, and that pet affinity would be positively associated with social support. The third hypothesis predicted that pet affinity would moderate the association between AEE and social support such that the negative relationship between AEE and social support would be weaker among those high in pet affinity.
enjoyable with”). The total score was the sum of all 19 items ($\alpha = .96$).

2.2.2. Ambivalence over emotional expression (AEQ; King & Emmons, 1990)

The AEQ includes 28 items ($\alpha = .94$) measuring expression of positive emotions, negative emotions, and intimacy. Participants respond to items on a five-point Likert scale ranging from 1 = never to 5 = frequently indicating how often they feel each statement suggests. Sample items include “I’d like to talk about my problems with others, but at times I just can’t” and “I often cannot bring myself to express what I am really feeling.”

2.2.3. Pet affinity

Pet affinity was measured using the Pet Attitude Scale (Morovati, Steinberg, Taylor, & Lee, 2008; Tempier et al., 1981). The scale is comprised of 18 items on a seven-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). Sample items include “House pets add happiness to my life”, and reverse coded “Having pets is a waste of money” ($\alpha = .93$). Pet affinity scores ranged from 4.41 to 7.00.

2.3. Procedure

Participants were recruited via email, flyers, and classroom advertisements to participate in a study of perceptions of pet owners. Students who met eligibility criteria (e.g., a dog owner, at least 18 years of age, and a registered student) could sign up for the study. Once students signed up for the study, they each submitted pictures of their dog to the researchers. Participants then scheduled a time to come into the laboratory for their assessment, during which they completed study materials. Participants received extra course credit in exchange for participation in this study.

3. Results

3.1. Descriptives

Table 1 presents means, standard deviations, and zero-order correlations for each of the major variables in the study as well as age. Social support was significantly and negatively related to AEE. Conversely, social support was significantly and positively associated with pet affinity. Pet affinity was not associated with AEE. Only age was negatively correlated with AEE.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Means, standard deviations, and correlations among variables.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social support</td>
<td>-</td>
</tr>
<tr>
<td>2. Ambivalence over emotional expression</td>
<td>-.41**</td>
</tr>
<tr>
<td>3. Pet affinity</td>
<td>.25</td>
</tr>
<tr>
<td>4. Age</td>
<td>.14</td>
</tr>
<tr>
<td>Mean female</td>
<td>65.04</td>
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<tr>
<td>Standard deviation female</td>
<td>13.23</td>
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<tr>
<td>Mean male</td>
<td>55.35</td>
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<tr>
<td>Standard deviation male</td>
<td>14.72</td>
</tr>
<tr>
<td>$t$-tests of variance for gender</td>
<td>1.45</td>
</tr>
<tr>
<td>$t$-tests of mean gender differences</td>
<td>3.62**</td>
</tr>
</tbody>
</table>

Note. N = 198.

** $p < .01$.

* $p < .001$.

† $p < .10$.

3.2. Primary analyses

A hierarchical regression analysis was performed to examine the role of AEE and pet affinity in predicting social support. Each predictor was mean centered. In Step 1, we evaluated social support as a function of AEE and pet affinity. Results of the Step 1 regression analysis supported our first hypothesis that AEE would negatively predict social support, $\beta = -.425$, $p = .000$. In addition, our second hypothesis that pet affinity would positively predict social support, was also supported, $\beta = .294$, $p < .001$. At Step 2, we added the two-way product term between AEE and pet affinity in predicting social support. The Step 2 regression analysis addressed our third hypothesis that AEE and pet affinity would interact to predict social support such that AEE would be negatively related to social support; however, this effect would be less pronounced for those high in pet affinity. Consistent with Cohen, Cohen, West, and Aiken (2003), the interaction was graphed using parameter estimate values from a regression equation such that low and high values were calculated by using one standard deviation below and above the means for each of the predictors. Results revealed a significant two-way interaction between AEE and pet affinity such that AEE was negatively associated with perceived social support, $\beta = -.128$, $p < .05$. However, this relationship was attenuated among those higher in pet affinity (see Fig. 1). There were also group differences between males and females for social support and pet affinity such that females were higher in social support and pet affinity than males. After controlling for age and gender as covariates, the results were unchanged (see Table 2).

4. Discussion

The current study evaluated the relationship between AEE, social support, and pet affinity in a sample of dog owners. This study builds upon previous research by emphasizing the benefits of pet affinity, particularly for those high in AEE. Consistent with prior research, AEE was negatively associated with perceived social support, while pet affinity was positively associated with social support. Further, pet affinity moderated the association between AEE and social support such that the negative relationship between AEE and social support was weaker among those high in pet affinity. The present findings suggest that pet affinity may serve as a buffer for dog owners against the negative effects of AEE on social support.

The negative relationship between AEE and social support has been demonstrated repeatedly in the literature (Emmons & Colby, 1995; Michael et al., 2006; van Middendorp et al., 2005). This negative relationship likely exists because those high in AEE are confused about their own emotions and feel distress over whether or not to express these emotions (Lu et al., 2011). Individuals high in AEE are also prone to confusion about the emotions of others, which can lead to misunderstanding others’ emotions (King & Emmons, 1990). This lack of understanding may deter those high in AEE from cultivating or utilizing social support networks, which may lead to psychological distress.

Past research has found that people high in AEE have difficulty expressing themselves to other people because of their fear of negative consequences (King & Emmons, 1990). Therefore, a potential explanation for our findings is that those high in AEE may be able to fulfill their social support needs through communication with pets. Pets may provide an easily accessible and non-judgmental audience for emotional disclosure. This works in conjunction with pets’ unconditional positive regard toward their owners to create an environment in which owners feel safe to communicate and openly express their feelings. Interestingly, research has shown that the mere presence of a dog can lead to this “safe
Furthermore, pets may provide owners with social benefits of social support and/or lessens the need for traditional support by serving as a distraction from stress through games or stress-relieving activities, such as playing fetch or going for a walk in the park. The presence of pets many also provide implicit social support, which is feeling emotionally supported just on the awareness or company of supportive others without necessarily requiring or receiving support (Taylor, Welch, Kim, & Sherman, 2007).

### 4.1. Conclusions, limitations and future directions

The strengths of the study should be considered in light of some limitations. One such limitation is the use of undergraduate students in our sample, which offers limited generalizability. However, the sample used is ethnically diverse and maps onto US population characteristics. Furthermore, our sample consisted of dog owners specifically. Our study chose to examine dog owners because the literature has found mixed results based on the type of pet owned. For example, Valeri (2006) demonstrated that dog owners tended to laugh more than cat owners. Future research might evaluate whether this effect is also found with owners of other types of pets. Another limitation is that the sample is mostly female; therefore, the results of this study may not be generalizable to males. However, when controlling for gender in the analyses, the results remained the same. Another limitation is that our study was a cross-sectional design, which does not allow for observation of trajectories. Future research might consider examining how these variables relate to one another over time.

This study contributes to the social support literature by seeking to understand and identify potential buffers for the detrimental effects of AEE on social support. We evaluated the potential protective effect of pet affinity on social support. Findings were consistent with expectations in that AEE was negatively associated with social support, whereas pet affinity was positively associated with social support. Furthermore, we found that the negative association between AEE and social support was weaker among those high in pet affinity relative to those low in pet affinity. Thus, individuals who felt a close connection with their pets reported more perceived social support than those who were less connected with their pets, despite high levels of AEE. These results suggest that feeling emotionally connected with pets may serve as a coping mechanism for those high in AEE. Future research might examine the potential role that pets play in buffering the association between high AEE and depressive symptomatology. The current study contributes to the growing literature by identifying individual differences in social support and suggests that encouraging interaction with pets might be considered as a target for treatment and prevention efforts to reduce the negative impact of AEE.

### Acknowledgements


### References


