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Original Articles

Companionship and Connection: Pet Ownership and Loneliness Across Gender and Family Structures

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Abstract *- This study examined whether owning a pet is related to psychological well-being, stress, and loneliness, while also considering differences in age, gender, and family type. The study included 70 participants, of whom 29 were pet owners and 41 were non-pet owners. Participants completed questionnaires measuring psychological well-being, loneliness, stress, and, for pet owners, their level of attachment to their pets was measured using the Lexington Attachment to Pets Scale (Brief-LAPS). The results showed that pet owners experienced significantly lower levels of overall loneliness and emotional loneliness than non-pet owners. Differences were also found in psychological well-being, with men and people from joint families reporting higher levels of well-being. Differences in loneliness were also found between some age groups. However, owning a pet did not lead to significant differences in psychological well-being or stress. Additionally, the strength of attachment to a pet was not linked to well-being, loneliness, or stress among pet owners. Overall, the findings suggest that pets may provide companionship and help reduce loneliness, particularly emotional loneliness, but owning a pet does not necessarily improve overall psychological well-being or reduce stress.*

Keywords *- Pets, Loneliness, Attachment, Pet Owners, Psychological Well Being, Stress.*

1. Introduction

The significance and role of pets in human life has become a focus of attention over the past few years, particularly in relation to mental health. In various cultures and age groups, pets are seen as companions, and they offer emotional support, comfort and responsibility. As mental health issues like loneliness, stress, and diminished psychological health have become more prevalent, scientists have begun to study whether such relationships can have a favorable impact on mental wellbeing results.

Psychological wellness is a positive psychological function characterized by dimensions of self-acceptance, personal growth, purpose in life, autonomy, environmental mastery and positive relationships (Ryff, 1998). It is not only the lack of mental illness but the presence of positive mental functioning. Numerous research studies indicate that owning a pet can positively affect a person's mental health. For example, it has been shown that people who have pets are more satisfied in life than those who do not (Bao & Schreer, 2016), suggesting that pets may contribute to life satisfaction. A possible explanation for this is that pets provide emotional companionship and support. Studies indicate that pets provide emotional assistance that has a positive impact on people's subjective well-being (Liu et al., 2024). Likewise, Li and Wong (2025) reported that pet ownership and well-being were closely linked with loneliness and living arrangements, with lesser loneliness among pet owners who lived alone. Indeed, their findings indicate that the social environment in which people live might be more important in terms of the psychological benefits derived from pets than perhaps being a pet owner. However, not all studies agree on these findings. For instance, during the COVID-19 pandemic, pet owners were found to have reported reduced levels of well-being compared to those who did not have pets (Amiot et al., 2022), indicating that the presence of a pet in some instances leads to increased stress. Further, a 2024 longitudinal study of middle-aged and older individuals explored pet ownership and loneliness, social isolation, depressive symptoms, and life satisfaction, indicating that multiple psychosocial outcomes should be considered and not just well-being. In addition, a systematic review of 24 observational studies revealed mixed results on the link between pet ownership and loneliness and social isolation, with evidence being more positive in some studies than others, and even more positive in some than others before or during the COVID-19 pandemic (Kretzler et al., 2022). Overall, these mixed results suggest that the relationship between pets and psychological outcomes can be positive, but the connection with mental health outcomes may depend on other factors and individual experiences.

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Stress is another factor that's closely related to psychological well-being. It is described as a relationship between a person and his or her environment where the demands of the situation feel like an overload of the person's resources and present a threat to his or her well-being (Lazarus & Folkman, 1984). Numerous studies indicate that owning a pet can lower stress. For instance, one study found that students had a significant reduction in cortisol, a primary stress hormone, after interacting with dogs or cats for about a decade (Pendry & Vandagriff, 2019). It indicates that we can experience a direct physiological effect of animal interaction, one that calms us. Likewise, spending time with pets can be relaxing, and it is believed that pets might release endorphins, chemicals in the brain that help to decrease stress and boost happiness (American Heart Association, 2024). However, it is not always a straightforward link between having a pet and stress.

A longitudinal study found that pet ownership did not significantly help to reduce stress over time, nor did it help to reduce social loneliness (lack of friendships or workplace relationships) or emotional loneliness (limited contact with family) (Ogata et al., 2023). Likewise, a study of over 4,000 participants during the COVID-19 pandemic revealed that owners had significantly higher reductions in stress and loneliness, but this was not replicated once other factors were controlled for (Ogata et al., 2023). This further illustrates the complexity of the relationship between the psychological outcomes and pet ownership, which can involve other factors in addition to ownership. In addition, the stress of caring for a pet can be a source of stress. For instance, one small-scale cross-sectional study, with 66 participants, revealed that dog owners with greater perceptions of their dogs' disobedience experienced higher stress levels (Barcelos et al., 2023). The results indicate that pet ownership might be linked to reduced stress in certain situations, but not always—perhaps due to the type of pet, the situation, or the responsibility that the pet owner has for taking care of the animal.

Another psychological factor that has been studied extensively in relation to mental health and overall well-being is loneliness. It is defined as the uncomfortable sensation of a difference between the social relationships a person wants to have and those that he actually has (Russell, Peplau, & Cutrona, 1980). Loneliness has been linked to poor mental health, such as lower life satisfaction, poorer psychological health and increased risk of depression (Hawkley & Cacioppo, 2010). Since pets can provide companionship and day-to-day interaction, scientists have examined whether pets help to alleviate feelings of loneliness. For instance, in Hong Kong, adults with pets experienced less loneliness than those without pets, especially those living alone (Li & Wong, 2025). Likewise, McConnell et al. (2011) discovered that pet owners frequently report that their pets supply them with social support, implying that pets may partly satisfy their emotional needs that may otherwise be met through social interactions. In a systematic review of 24 observational studies, however, Kretzler et al. (2022) did not find consistent evidence for a connection between owning a pet and feelings of loneliness. Some studies reported that pet owners experienced a lower level of loneliness, and others reported no significant associations, suggesting that the relationship may be dependent on factors such as population or social circumstances.

However, the results of the research are not always uniform. The pet ownership–loneliness relationship was not observed in a large population-based study in Canada during the COVID-19 pandemic (Amiot et al., 2022). This may be due to the fact that pets can offer companionship, but not necessarily the same level of emotional and social support as would a human. The results suggest that the association between pet ownership and loneliness is complex and might be shaped by some of the factors listed above.

Apart from psychological factors, the family environment may also have an impact on the mental health effects of pet ownership. The family configuration may influence the role pets play in a family. The family bond might be enhanced by pets in nuclear families, as a way of sharing the responsibilities and care of the pet, and providing companionship for both parents and children. Pets could play a role in facilitating relationships and emotional support in a family in joint families where several generations reside together, thus benefiting multiple family members at once.

Pets can have an even greater significance to those who live alone in a single-person household, where they are a companion and can alleviate feelings of loneliness. The literature review on pets and loneliness found that the positive psychological effects of pets could be more evident for those living alone, where a pet can serve as a substitute for social interaction in daily life (Li & Wong, 2025). However, there are relatively few studies that have directly compared the psychological impact of pet ownership on psychological well-being, psychological stress, and psychological loneliness among family structures and by gender.

In the context of emotional support and mental health, however, there is a lack of awareness of the possible differences in relation to the psychological association with pets in various social and demographic settings. Past studies have generally explored a single effect (e.g., loneliness, stress, well-being) at a time, and fewer have looked at these outcomes in combination with the influence of family structure and gender. There are also conflicting reports on the consistency of the benefits of owning pets on psychological outcomes in the existing literature. This indicates the need for research to take the psychological outcomes and social factors into account together.

To this end, the present study proposes to investigate this relationship between pet ownership, psychological well-being, stress and loneliness, taking into account differences between the various family types and between women and men. Apart from comparing pet owners with non-pet owners, the study also explores the association between pet attachment and psychological outcomes for pet owners. The study seeks to describe the relationship of pet ownership to psychological well-being, stress and loneliness in light of these variables. The study employs a cross-sectional design, thus limiting the conclusions to associations and not causal effects.

2. Materials and Methods

2.1. Aim and Objectives of the Study

The present study aims to examine the relationship between pet ownership and psychological well-being, stress, and loneliness, while also considering variations across family type, gender, and age group. The specific objectives of the study are: (1) to compare pet owners and non-pet owners on psychological well-being, stress, and loneliness; (2) to examine the relationship between attachment to pets and psychological well-being, stress, and loneliness among pet owners; (3) to examine differences in psychological well-being, stress, and loneliness across gender, family type, and age groups; and (4) to examine the association between family type, gender, and pet ownership status.

2.2. Participants

The sample consisted of 70 participants (24 men, 45 women, and 1 non-binary respondent) recruited through convenience and snowball sampling. Of these, 29 participants owned a pet, and 41 did not. Fifty-one participants belonged to nuclear families, and 19 belonged to joint families. Participants ranged in age from 13 to 59 years. The inclusion of both adolescents and adults was intended to capture participants at different stages of life and to allow examination of whether the relationship between pet ownership and psychological well-being, stress, and loneliness varies across different family and social contexts.

The lower age limit of 13 years falls within the adolescent age range, which the World Health Organization defines as 10–19 years, while participants above this age were adults. Given the relatively small overall sample size of 70 participants and the uneven distribution across demographic groups, age was not used for detailed subgroup comparisons. Participants were recruited primarily through social media and personal networks, and participation was voluntary.

2.3. Instrumentation

1. WHO-5 Well-Being Index: The questionnaire consists of five statements that aim to assess how respondents have been feeling over the last two weeks. All the items are on a 5-point Likert scale from 0 = At no time to 5 = All of the time. The questionnaire reports high internal consistency and validity with Cronbach's alpha of 0.86 - 0.90. It has been translated into over 50 languages, making it suitable for international studies. An example of an item from the scale is: "I have felt active and vigorous."
2. De Jong Gierveld Loneliness Scale: This 11-item scale measures overall, emotional, and social loneliness. Six items assess emotional loneliness, and five items assess social loneliness, and the items combine to yield a total loneliness score. Responses are given on a 3-point scale (No, More or less, Yes), which is dichotomised for scoring purposes. The scale has demonstrated good reliability and validity across diverse populations, with Cronbach's alpha values typically ranging from 0.70 to 0.80 for the total scale. An example item is: "I experience a general sense of emptiness."
3. Perceived Stress Scale (PSS-10): This 10-item scale measures the degree to which situations in one's life over the past month are appraised as stressful. Items are rated on a 5-point Likert scale from 0 = Never to 4 = Very often, with positively worded items reverse-scored. Higher total scores indicate greater perceived stress. The scale has demonstrated good internal consistency, with Cronbach's alpha values typically ranging from 0.78 to 0.91. An example item is: "In the last month, how often have you felt nervous and stressed?"
4. Lexington Attachment to Pets Scale, Brief version (Brief-LAPS): This 7-item short form of the original 23-item LAPS measures the strength of emotional attachment to a pet and was administered only to participants who owned a pet. Items representing all three sub-dimensions of the full scale (general attachment, people substituting, and animal rights/welfare) are rated on a 4-point Likert scale from 0 = Strongly disagree to 3 = Strongly agree, yielding a composite score ranging from 0 to 21, with higher scores indicating stronger attachment. The Brief-LAPS is highly correlated with the full LAPS ($r = .95$) and has demonstrated good internal consistency, with a Cronbach's alpha of approximately 0.90. An example item is: "My pet means more to me than any of my friends."
5. Demographic Questionnaire: A brief questionnaire was used to collect information on participants' age, gender, family type (nuclear or joint), and pet ownership status.

2.4. Reliability and Validity

All scales used in the present study demonstrated acceptable to excellent internal consistency in the present sample, with Cronbach's alpha values above 0.60, consistent with reliability estimates reported in the wider literature: WHO-5 ($\alpha = .86–.90$), De Jong Gierveld Loneliness Scale ($\alpha = .70–.80$), PSS-10 ($\alpha = .78–.91$), and the Brief-LAPS ($\alpha \approx .90$). All instruments have also demonstrated adequate construct and convergent validity in previous research, supporting their appropriateness for use in the present study.

2.5. Data Collection Procedure

Data were gathered using an online survey, which was created using Google Forms. Convenience and snowball sampling were used to share the survey link via social media and personal networks. This survey started with an information sheet that explained the purpose of the survey, and then followed an informed consent form. Those who consented to the demographic questionnaire followed by the WHO-5 Well-Being Index, the De Jong Gierveld Loneliness Scale, and the Perceived Stress Scale were allowed to continue to complete the questionnaires. Participants who said that they had a pet were also given the Lexington Attachment to Pets Scale. The average completion time for the survey was about 10–15 minutes, and it was anonymous. IBM SPSS Statistics Version 25.0 was used to analyse the collected data. All the statistical tests performed were set at the 5% level of significance.

2.6. Ethical Considerations

The study was voluntary, and participants could drop out of the study at any time without facing any penalty. All participants provided informed consent before data was collected, and explicit instructions were given at the beginning of the survey explaining the purpose of the survey, confidentiality, and anonymity of responses.

Consent was obtained from a parent/legal guardian and assent from the minor for participants under 18 years of age. An informed consent document was sent home to the parent/legal guardian prior to the minors taking the survey. There was no data collection of personally identifying information, and all data was kept securely and utilized only for this research.

3. Results

Table 1. Comparison of Pet Owners and Non-Owners on Study Variables

Variable	Owner M	Owner SD	Non-owner M	Non-owner SD	t	df	p	d
Psychological well-being	13.83	5.79	14.07	4.11	−0.20	47.26	.845	−0.05
Loneliness (total)	3.41	3.10	5.34	3.40	−2.42	68	.018	−0.59
Emotional loneliness	1.86	1.90	2.85	2.08	−2.03	68	.046	−0.49
Social loneliness	1.55	1.90	2.49	1.95	−2.00	68	.050	−0.49
Stress	18.41	7.95	19.34	5.46	−0.54	46.17	.589	−0.14

Note. Owner n = 29, non-owner n = 41. Welch-corrected degrees of freedom are reported for psychological well-being and stress because Levene's tests indicated unequal variances. Negative d values indicate higher scores among non-owners.

Pet ownership was not associated with significantly different levels of psychological well-being or stress. However, pet owners reported significantly lower total loneliness than non-owners, with a moderate effect. The same pattern was observed for emotional loneliness. Social loneliness was also lower among pet owners, although p = .050 represents the conventional significance threshold and should therefore be interpreted cautiously.

Table 2. Correlations Between Pet Attachment (LAPS) and Study Variables Among Pet Owners

Variable	r	p
Psychological well-being	−.05	.811
Loneliness (total)	−.11	.557
Emotional loneliness	−.17	.376
Social loneliness	−.02	.940
Stress	.24	.210

Note. n = 29. LAPS = Lexington Attachment to Pets Scale. None of the correlations were statistically significant.

Among pet owners, attachment to pets was not significantly related to psychological well-being, total loneliness, emotional loneliness, social loneliness, or stress. The correlations were small in magnitude, suggesting that the degree of attachment to the pet was not meaningfully associated with the study outcomes in this sample.

Table 3. Simple Linear Regression of Pet Attachment (LAPS) Predicting Study Outcomes Among Pet Owners

Outcome	b	SE	t	p	R^2	F
Well-being	−0.07	0.27	−0.24	.811	.002	0.06
Loneliness (total)	−0.09	0.15	−0.59	.557	.013	0.35
Stress	0.47	0.36	1.28	.210	.058	1.65

Note. n = 29. b represents the unstandardized regression coefficient for the LAPS score. None of the regression models was statistically significant. LAPS = Lexington Attachment to Pets Scale.

Simple linear regression analyses showed that pet attachment did not significantly predict psychological well-being, total loneliness, or stress among pet owners. The models explained very little variance in well-being (0.2%)

and loneliness (1.3%). The stress model explained 5.8% of the variance, but this model was also not statistically significant. Thus, greater attachment to a pet was not a significant predictor of the assessed psychological outcomes in this sample.

Table 4. Comparison of Men and Women on Study Variables

Variable	Men M	Men SD	Women M	Women SD	t	df	p	d
Psychological well-being	15.83	4.24	12.93	4.92	2.44	67	.017	0.62
Loneliness (total)	5.46	3.26	4.04	3.43	1.66	67	.102	0.42
Emotional loneliness	2.79	2.04	2.22	2.07	1.10	67	.278	0.28
Social loneliness	2.67	1.95	1.82	1.96	1.71	67	.092	0.43
Stress	19.29	6.44	18.82	6.77	0.28	67	.781	0.07

Note. Men n = 24, women n = 45. One nonbinary respondent was excluded from these group comparisons because of insufficient cell size.

Men reported significantly higher psychological well-being than women, with a moderate-to-large effect. No statistically significant gender differences were found for total loneliness, emotional loneliness, social loneliness, or stress. The difference in social loneliness approached the conventional significance threshold, with men reporting higher mean scores, but it did not reach statistical significance.

Table 5. Comparison of Nuclear and Joint Family Respondents on Study Variables

Variable	Nuclear M	Nuclear SD	Joint M	Joint SD	t	df	p	d
Psychological well-being	13.20	4.99	16.05	3.78	−2.26	68	.027	−0.61
Loneliness (total)	4.51	3.42	4.63	3.40	−0.13	68	.895	−0.04
Emotional loneliness	2.55	2.07	2.16	2.03	0.71	68	.483	0.19
Social loneliness	1.96	2.00	2.47	1.90	−0.97	68	.337	−0.26
Stress	19.59	6.86	17.26	5.52	1.32	68	.190	0.36

Note. Nuclear n = 51, joint n = 19. Negative d values indicate higher scores among respondents from joint families for comparisons where the joint-family mean was higher.

Respondents from joint families reported significantly higher psychological well-being than respondents from nuclear families, with a moderate-to-large effect. No significant differences were observed between family types in total loneliness, emotional loneliness, social loneliness, or stress. Thus, family type was associated with psychological well-being in this sample but not with the other assessed outcomes.

Table 6. Associations Between Family Type, Gender, and Pet Ownership

Variable	Pet owner, *n* (%)	Non-owner, *n* (%)	χ^2	*df*	*p*
Family type					
Nuclear (*n* = 51)	16 (31.4%)	35 (68.6%)	6.38	1	.012
Joint (*n* = 19)	13 (68.4%)	6 (31.6%)			
Gender					
Men (*n* = 24)	8 (33.3%)	16 (66.7%)	1.86	2	.394
Women (*n* = 45)	21 (46.7%)	24 (53.3%)			
Nonbinary (*n* = 1)	0 (0.0%)	1 (100.0%)			

Note. *N* = 70. Percentages are calculated within family-type or gender categories. The family-type analysis used Yates' continuity correction. The nonbinary respondent was included in the gender × pet ownership analysis but excluded from the men-versus-women *t* tests because of insufficient cell size.

Family type was significantly associated with pet ownership, $\chi^2(1, N = 70) = 6.38$, $p = .012$, using Yates' continuity correction. Respondents from joint families were more likely to own a pet (68.4%) than respondents from nuclear families (31.4%). Gender was not significantly

associated with pet ownership, $\chi^2(2, N = 70) = 1.86$, $p = .394$ (see Table 6).

Across the analyses, pet ownership itself was associated with lower loneliness but not with psychological well-being or stress. Within pet owners, the degree of attachment to the pet was not significantly associated with or predictive of the psychological outcomes examined. Demographic analyses showed significant differences in well-being by gender and family type, as well as significant omnibus age-group differences in total and emotional loneliness. The significant age effects were limited by small sample sizes in some age categories and by the absence of significant post hoc differences for total loneliness.

4. Discussion

The results of the present study showed that the difference between pet owners and non-pet owners with regard to total loneliness was statistically significant, with lower loneliness reported by pet owners. This is in line with earlier studies indicating that owning a pet could help to alleviate a sense of isolation and loneliness. For instance, Stanley et al. (2014) reported that older dogs' owners were less likely to feel lonely than non-pet owners, especially those who lived alone. Interestingly, Li and Wong (2025) also revealed that pet owners felt less lonely than non-pet owners, especially for those who lived alone. A possible reason for this is that pets offer constant companionship and interaction, fulfilling some social and emotional needs. The results of the present study agree, therefore, with the idea that owning a pet could be of special importance for loneliness, not necessarily for all aspects of psychological health.

The current study also revealed that pet owners had significantly less emotional loneliness than non-pet owners. This implies that the emotional connection and companionship may be especially important when considering pet ownership. McConnell et al. (2011) reported that humans typically believed that they relied on their pets as a source of social support and that the pet-human bond could lead to positive psychological outcomes. Other more recent studies by Li and Wong (2025) also indicate that loneliness can be a significant mediator between pet ownership and wellbeing. Social loneliness was also found to be lower in pet owners, but at the conventional level of significance ($p = .050$) and needs to be interpreted with caution in the present study. This increased evidence of emotional loneliness might imply that pets can be a source of emotional companionship rather than a substitute for a wider social network of humans, like friendships and family connections.

A significant result of the present study was that there was no significant relationship between the ownership of pets and psychological well-being, total loneliness, emotional loneliness, social loneliness, and stress among those who own pets. In parallel, the regression analyses revealed that very little of the variance in well-being, loneliness and stress was accounted for by pet attachment. This is parallel with the conflicting results reported in the literature for the association between pet attachment and mental health. Northrope et al. (2025) carried out a systematic review of 116 studies, which revealed that some studies reported that a stronger attachment was linked to better mental health outcomes, while others identified negative mental health associations, mixed associations, or no significant association. Specifically, 33 studies did not show any statistically significant relationship between pet attachment and mental health/well-being outcomes. This indicates that increased emotional involvement with a pet is not necessarily associated with greater psychological benefits. Another reason could be that human relationships, living circumstances and responsibilities that come with pet ownership may affect the psychological outcomes in addition to attachment to the pet. Based on the present results, it seems that the intensity of attachment is not solely determinant of psychological wellbeing, loneliness, or stress.

The analysis revealed that there was a statistically significant difference in psychological well-being between men and women, with men reporting higher psychological well-being than women ($p = .017$), moderate-to-large effect size ($d = .62$). But there were no gender differences in total loneliness, emotional loneliness, social loneliness or stress. As such, the gender difference found in the present study should not be considered to be a general difference in all psychological outcomes. The results do not align with those of Jha and Miya (2020), who investigated family structure and psychological well-being among 220 adults in India, who also found no significant main effect for family structure on psychological well-being. It is difficult to tell whether these findings are attributable to differences in sample characteristics, measurement approach, or the relatively small, but unequal, gender-based samples in the current study (24 men and 45 women). Thus, the gender gap observed in the present study should be viewed with a certain degree of circumspection and may not be representative of a general trend in populations.

The results further showed that there was a statistically significant difference in psychological well-being between nuclear and joint families with those belonging to the joint families indicating a higher level of psychological well-being ($p = .027$) with moderate effect size ($d = -.61$). The discovery indicates that there could be a relationship between family structure and psychological wellbeing, which may be due to the differences between the opportunities for social interaction, emotional support and shared responsibility between joint and nuclear families. The same finding contradicts the study done by Jha and Miya (2020), which studied the family structure of adults in India and found that there was no main effect of family pattern on psychological

well-being. One of the important findings of the present study is that there was a significant association between family type and pet ownership, too; respondents from joint families were more likely to have pets than respondents from nuclear families. Hence, the positive psychological well-being reported by the joint-family respondents was not a direct impact of their family structure or pet ownership, since there was a positive association between family structure and pet ownership among the respondents in this study. The difference observed may also be due to other characteristics of joint families, like more social interaction and more family support.

5. Conclusion

The aim of the present study was to explore the association between pet ownership, psychological well-being, stress and loneliness and to look at family structure and gender differences. The results indicated that pet owners' total loneliness and emotional loneliness scores were significantly lower than those of non-pet owners. This implies that pets can offer companionship and emotional support. There were, however, no significant links between psychological well-being/stress and pet ownership, as well as non-significant links between psychological outcomes (measured) and pet attachment. The results do not necessarily suggest that pets always lead to better mental health, but rather give a balanced view of the association between pets and mental health.

The results could have broader implications, as they indicate that pets may have a positive effect on loneliness, especially among people who have less social interaction. This is applicable for mental health workers, community groups, and policy makers creating policies and programs for socially isolated individuals. Emotionally, companionship and emotional support might be regarded as one possible source of pets that could be considered. Companion and emotional support is one way that might be considered as a possible source of pets. Pets should not be used as a substitute for human relationships, social support and professional mental health care, however. The results indicate, too, that there are potential interactions between people and pets that must be taken into account in future support systems; this could be based on personal lifestyle, family structure, prior relationships, and the care of an animal.

5.1. Limitations of the Study

1. The relatively small sample limits the reliability and generalisability of the findings.
2. There were more women than men, which may have influenced the gender comparison.
3. Data were collected at one point in time, meaning causal relationships cannot be established.
4. Participants' responses may have been influenced by personal perceptions or social desirability.
5. Variables such as socioeconomic status, quality of human relationships, type of pet, and duration of pet ownership may have influenced the results.
6. The sample may not represent people from different populations, cultures, or age groups.
7. Different statistical comparisons were made in the study, which can lead to statistically significant results due to chance. So, individual significant results must be taken with care.
8. A variety of factors, such as family structure, age, and gender, which could be confounding factors, were present in the data regarding the psychological outcomes and pet ownership. These factors were not controlled for in the analyses and may have influenced the observed associations.
9. Only 29 pet owners were used for the analysis of pet attachment. These nonsignificant relationships between pet attachment and psychological outcome should be viewed with caution due to the small number of pet owners available for analysis.

5.2. Future Recommendations

1. Larger and more diverse samples should be considered for future research in order to increase the reliability and generalisability of results.
2. It is important that researchers examine participants over time to determine if ownership leads to changes in levels of loneliness, stress or psychological well-being.
3. Future studies: The psychological effects of different pets (dogs, cats and other pets) could be compared.
4. The number of interactions, duration of ownership and level of attachment should all be taken into account and not just whether the participants have a pet in their home.
5. There is a need for future research to consider potential factors known to impact psychological outcomes, including family support, friendships, socioeconomic status, and living arrangements.
6. Further studies could be done to see if there is any variation between the association of pet ownership and mental health in different settings, like living alone, nuclear families and joint families.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this paper.

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