

Depression, Anxiety, Stress, and Empathy in Pet and Non-Pet Owners

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ABSTRACT

People who loves animal invest a lot of time with their pet, and in general, their pets become a part of the family, so it is important to know what role they play and how they affect the lives of these people as opposed to people who don't own any animals. This study was conducted to understand the difference between the levels of depression, anxiety, stress, and empathy between pet and non-pet owners. All of the participants in this study were between the ages of 18 and 25 and lived in the Delhi-National Capital Region. There were a total of 100 subjects; 50 people owned pets and 50 did not. The two scales used were the DASS-21 and the Perth Empathy Scale. The responses were scored. The student's t-test was applied. The obtained results show that there is no significant difference in the mean values of pets and non-pet owners on the levels of depression, anxiety, stress, and empathy. In order to get a better understanding of the relationship between depression, anxiety, stress, and empathy in pet owners and non-pet owners, a Pearson correlation was used. The results showed that there was a strong positive association between depression, anxiety, stress, and empathy in pet owners and non-pet owners. In addition, a significant positive correlation was found between depression, anxiety, stress, and empathy in pet owners and non-pet owners.

Keywords: *Pet and non-pet owners; depression; anxiety; stress; empathy,*

1. Introduction

Dogs and cats are the most common house pets. Humans have a long history of bonding with domestic animals, and today pets frequently serve as 'social substitutes' through bonding. There is some evidence that having a pet at home can improve people's well-being and help children develop social skills. Pets have traditionally been regarded as some of humans' closest companions. Like other relationships that humans develop with other humans and religious figures (e.g., God), human-pet relationships vary greatly in closeness, warmth, commitment, emotional involvement, and conflict. Pets can play a significant role in the lives of human beings by acting as companions, providing assistance, and providing entertainment. There is evidence to suggest that the companionship of an animal can be beneficial to a person's mental health. by fostering the formation of deep emotional ties. Interaction with animals has been seen to strengthen human consciousness in terms of behaviour, attitude, responsibility, and social support. Pets can be a crucial part of a family. They can provide companionship, love, and joy to their human companions. Pets can also help teach children important values such as responsibility and empathy. Children who have pets learn how to take care of another living being. Additionally, pets can teach children how to be

compassionate and empathetic toward others. Pets can also provide emotional support to their human companions. They can help reduce stress and anxiety, improve mood, and even provide a sense of purpose and meaning to life. A lot of households observe their pets' birthdays and give them presents for the holidays as a token of their affection. When a member of the family is going through a difficult change, such as an illness or loss, having a pet can help with coping, resilience, and recovery. According to reports from families with members serving in the military, pets provide a great deal of support and stability throughout the upheaval created by the relocation of a family member. Children in single-parent families have significantly higher levels of bonding with pets than those in two-parent families (Bodsworth & Coleman, 2001).

Depression is one of the most serious mental disorders. The symptoms of depression can vary from mild to severe and should be present for at least two weeks in order to be diagnosed. Pets, particularly dogs and cats, have been found to have a pragmatic impact on people who are experiencing depression. Research has shown that owning a pet can help alleviate symptoms of depression and provide comfort, companionship, and a sense of purpose to their owners. One reason pets can be beneficial for

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people with depression is that they provide social support and reduce feelings of loneliness. Pets are always there for their owners and can provide love and affection, which can help reduce feelings of isolation and improve mood.

Anxiety is a negative mood state characterized by bodily symptoms of physical tension and apprehension about the future (American Psychiatric Association, 2013; Barlow, 2002). Pets, particularly dogs and cats, can also have a positive impact on people who experience anxiety. Pets can help people with anxiety by providing a sense of routine and structure. Caring for a pet, such as feeding them or walking them, can provide a sense of purpose and help people feel more in control of their lives. Finally, pets can also provide social support, which is important for people with anxiety. Pets can be a source of unconditional love and companionship, which can reduce feelings of loneliness and isolation.

Stress is a natural response to the demands of daily life; however, it can become detrimental to your health when it interferes with your ability to carry out routine tasks. Changes caused by stress can occur in practically every system of the body, and these changes can have an effect on how people feel and behave. Because it can cause changes in both the mind and the body, stress can directly contribute to psychological and physiological disorders and diseases. It also has an effect on both mental and physical health, which in turn lowers the quality of life. Pets can also have a positive impact on people who are experiencing stress. Research has shown that interacting with pets can help reduce stress levels and provide a sense of calm and relaxation. One way pets can help reduce stress is through physical touch. Petting a dog or cat has been found to release hormones like oxytocin, which can help reduce stress and promote feelings of calm and well-being.

The capacity to recognize, comprehend, and identify with the emotions and sentiments of a different individual, animal, or fictional character is referred to as empathy. Building up your capacity for empathy is absolutely necessary in order to successfully form connections and act humanely. The capacity to recognize a variety of feelings, to place oneself in the emotional shoes of another, and to share those feelings with that person or react in a manner that is emotionally comparable are all components of empathy, which is the consequence of a difficult interaction between cognition and affect. Empathy is a key factor in the development of prosocial or altruistic behaviour, which is defined as activities that benefit another person without any expectation of a reward for oneself. This process begins in early childhood education. Research has suggested that owning and interacting with pets can help develop empathy in humans. Empathy is the capability to understand and share the feelings of others and is an important aspect of social

and emotional development. One way that pets can help develop empathy is by providing opportunities for caretaking and nurturing. Taking care of a pet, like feeding them, grooming them, or playing with them, can help children and adults develop empathy by learning to understand and respond to the needs of another living being.

It is important to look at the relationship between dog ownership and owners' mental health. Pets were found to contribute to a stronger sense of identity in pet owners who struggle with mental illness. In addition, the presence of pets, such as feeding them, was reported to be a pleasant distraction from mental health concerns. Brooks et al. (2018) conducted a comprehensive systematic review and found many ways in which pets help manage mental health and even facilitate recovery.

2. Review of Literature

Watson and Weinstein (2017) have demonstrated that owning a pet has psychological benefits for several populations, including nursing home residents and those who are physically ill. Current research suggests that there may be a complex relationship between pet ownership and well-being. We looked at the connection between working women's emotional distress and pet ownership. We also looked into the link between emotional distress and pet affection. Participants included 42 female workers of the American Medical Association who owned cats or dogs and 42 non-owners. A sadness, anxiety, and rage inventory was completed by each person. In order to gauge their level of attachment to their pets, pet owners also filled out a scale. According to the findings, there were no appreciable differences between pet owners and nonowners on any of the measures, and there was no correlation between any of the indicators and pet attachment. The findings showed that pet owners in the current study were substantially more bonded to their animals than national norms.

In Gan, Hill, et al. (2020), 14 community-dwelling older individuals who were 65 years of age or older and pet owners participated in a semi-structured interview on pet ownership and its impact on mental health in older adults. On a single occasion, participants were individually questioned about the significance of pet ownership and how they felt their pets affected their mental health. According to the findings of these studies, elderly people who continue to live in their communities may benefit from owning a pet because it can provide them with companionship, foster a sense of purpose and meaning, reduce the risk of experiencing loneliness, and increase the likelihood that they will participate in social activities. These advantages may also help older people become more resistant to the challenges linked to their mental health, which may have a beneficial effect on the outcomes connected to their mental health.

Kumar, Biswas, and Singh (2022) on the topic Effects of Pet Ownership on Depression, Anxiety, Stress, and Anger among Adults. The sample size of the study was 185, and the data was collected using two widely used tools: the Depression Anxiety Stress Scale-21 (Lovibond & Lovibond, 1995) and the Aggression Questionnaire (Buss & Perry, 1992). The ANOVA test showed that there was no significant difference in depression ($F = 2.43, p > 0.05$), anxiety ($F = 2.08, p > 0.05$), stress ($F = 1.50, p > 0.05$), or anger ($F = 0.21, p > 0.05$) among the participants based on pet ownership. Pearson's correlation coefficient showed that there was no significant difference in depression, anxiety, stress, or anger among the participants based on the number of members in the family or the number of senior citizens in the family.

Hawkins et al. (2020) on the impact of people's relationships with their pets on their mental health and overall well-being over the course of the COVID-19 lockout. The participants were aged 20-77 years, and the tools used were DASS-21, the Psychological General Well-Being Index, and the Pet Attachment Scale. The results of the study included a significant difference in depression, anxiety, and stress among those who were more attached to their pets than any non-pet owners.

Taylor and Signal (2015) on feelings and points of view towards animal welfare. The purpose of this particular study was to investigate the possible relationships that exist between human-to-human empathy and perspectives towards the treatment of animals. The Interpersonal Reactivity Index (IRI) and the Animal Attitude Scale (AAS) were both administered to a combined total of 194 undergraduate students who were majoring in either sociology or psychology. It was shown that there is a significant connection between the levels of empathy a person possesses, the gender of the person, the ownership of companion animals, and their perspectives on animals.

3. Relevance of the study

Being an animal lover and owner of two dogs and a cat, the researcher observed that even five minutes of playing with them and petting them soothes her mind after a long, draining day. Spending time with them relaxes her and helps her regain her focus when she is under pressure. Going on walks with them refills her energy and helps her find a new friend.

The relationship between canine ownership and the mental health of dog owners requires further investigation. Little emphasis has been placed on the strength of the relationship between dogs and their owners and the impact this may have on potential well-being effects; the strength of the pet-owner relationship is not solely determined by the amount of time spent together but also by the activities engaged in and the feelings developed toward the animal.

Based on the study, the following objectives were made:

1. To determine the level of depression in pet owners and non-pet owners.
2. To find out the anxiety levels between pet owners and non-pet owners.
3. To determine the levels of stress among pet owners and non-pet owners.
4. To assess the degree to which pet owners and non-pet owners differ in their level of empathy.
5. To assess depression, anxiety, stress, and empathy among pet owners and non-pet owners.

Based on the objectives, the following hypotheses were proposed:

Ho₁: There is no significant difference between pet and non-pet owners with respect to depression levels.

Ho₂: There is no significant difference between pet and non-pet owners with respect to anxiety levels.

Ho₃: There is no significant difference between pet and non-pet owners with respect to stress levels.

Ho₄: There is no significant difference between pet and non-pet owners with respect to empathy levels.

Ho₅: There is no significant correlation between depression, anxiety, stress, and empathy among pet and non-pet owners.

4. Method

Design

The descriptive design method and the single cross-sectional method were used to measure correlation. Descriptive research aims to accurately and systematically describe a population, situation, or phenomenon. It can answer what, where, when, and how questions, but not why questions. A cross-sectional study is a type of research design in which you collect data from many different individuals at a single point in time.

Sample

Purposive sampling was used to collect data from the subjects. It is a non-probability sampling methods. The study was done on 100 participants from Delhi and NCR. The total number of participants in the present study was 100, comprising 50 each from both the categories of pet owners and non-pet owners. The age group of all these participants was 18 to 25 years old, residing in Delhi-NCR.

Tools Used

In order to compare pet and non-pet owners on the dimensions of depression, stress, anxiety, and empathy, two research tools were employed.

Depression, Anxiety, and Stress Scale: 21 Items (DASS-21) The Depression, Anxiety, and Stress Scale—21 Items (DASS-21) is a set of three self-report scales designed to

measure the emotional states of depression, anxiety, and stress. Each of the three DASS-21 scales contains seven items, divided into subscales with similar content. Scores for depression, anxiety, and stress are calculated by summing the scores for the relevant items. The assumption on which the On each scale, total scores were calculated by summing the scores into seven items and then multiplying by two. Total scores ranged between 0 and 42. DASS-21 has good internal consistency and reliability (Cronbach’s alpha ranged between 0.74 and 0.93) in both clinical and non-clinical samples. The DASS has adequate convergent and discriminant validity (CFI = .93).

Empathy is a multidimensional construct comprising two components: cognitive empathy and affective empathy. Cognitive empathy refers to the ability to infer and recognize the emotions of others, while affective empathy refers to the ability to experience others’ emotions vicariously. In other words, people with high levels of empathy can easily recognize the emotions of others and experience those emotions. The PES (Brett et al., in press) is a 20-item self-report measure of empathy. It is designed to assess both the To interpret PES scores, we recommend that a respondent’s score be compared to scores from an appropriate normative sample. Empathy is a dimensional (rather than categorical) construct that is normally distributed in the general population, so empathy scores are best thought of as existing on a continuum. Everyone has some level of empathy, whether that be a low, average, or high level. The number of standard deviations (SDs) of a respondent’s score is from the mean of an appropriate degree of empathy.

5. Procedure

The aim of the study was to determine depression, anxiety, stress, and empathy levels among pet and non-pet owners, and the same Perth Empathy scale and the DASS scale were used for the research. A Google Form was created, which consisted of five sections that included a consent form, demographic details, and questions related to eating habits. The succeeding sections consist of the two scales used. A pilot study was conducted on five participants at first, and after considering their valuable feedback, three more questions were added: ‘Do you own a pet?’ and ‘How much time do you spend with your pet?’ After fixing the final Google form for collecting data, a pilot study with 10 participants was conducted. Five of the participants were pet owners, and the other five were non-pet owners. Necessary feedback was taken from the participants, but there weren’t any modifications required in the form, as all participants were satisfied with the form and didn’t face any difficulties answering the questionnaire. The final data collection was then started, and the Google form was shared with all the participants. Keeping in mind the ethical APA guidelines, the participants were first asked to sign the consent form to ensure their participation in the

research study. After calculating the scores, the data was exported to Jamovi 2.3.21, and an independent sample student’s t-test was performed for the two groups to compare the differences between their depression, anxiety, stress, and empathy. Further, the correlation was found using Pearson’s correlation on empathy, depression, stress, and anxiety among pet owners and non-pet owners.

6. Result

The present study aims to understand the levels of Depression, Anxiety, Stress and Empathy among Pet and Non Pet Owners

Table 1 : *M, SD , t-value and p value at α 0.05 of pets and non pet owners on depression*

	M	SD	Df	P	t
Pet Owner	13.2	11.0	98.0	0.731	0.345
Non Pet Owner	14	8.51	98.0	0.731	

Note. * $p < .05$

Table 1 shows depressive mean values for pet and non-pet owners on anxiety. Pet owners were less depressed (13.5) than non-pet owners (13.9).

Table 2 : *Degrees of freedom, t test and p value at α 0.05 of pets and non pet owners on anxiety*

	N	M	SD	Df	p	t
Pet Owner	50	13.5	11.0	98.0	0.863	-0.173
Non Pet Owner	50	13.9	8.51	98.0	0.863	

Note. * $p < .05$

Table 2 compares mean values of anxiety for pet owners vs non-pet owners. Pet owners experienced less anxiety (13.5) than their counterparts (13.9).

Table 3 : *Degrees of freedom, t test and p value at α 0.05 of pets and non pet owners on stress*

	N	M	SD	Df	p	T
Pet Owner	50	12.3	10.1	98.0	0.870	-0.165
Non Pet Owner	50	12.6	9.37	98.0	0.870	

Note. * $p < .05$

Table 3 compares stress mean values for pet owners vs non-pet owners. Pet owners experienced less stress (12.3) than their counterparts (12.6).

Table 4 : Degrees of freedom, t test and p value at α 0.05 of pets and non pet owners on empathy

	N	Mean	SD	Df	p	t
Pet Owner	50	59.9	16.0	98.0	0.349	0.940
Non Pet Owner	50	57.1	14.1	98.0	0.349	

Note. * $p < .05$

Table 4 compares stress mean values for pet owners vs non-pet owners. Pet owners were more empathetic (59.9) than their counterparts (57.1).

Table 5: Correlation between Depression, Anxiety, Stress and Empathy of Pet and Non Pet Owners

		Depression	Empathy	Anxiety	Stress
Depression	Pearson's r				
Empathy	Pearson's r	0.211*			
Anxiety	Pearson's r	0.635***	0.228*		
Stress	Pearson's r	0.545***	0.218*	0.790***	

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5 demonstrates Pearson Coefficient Correlation between Empathy, Depression, Stress, and Anxiety among pet and non-pet owners. Depression, anxiety, and empathy related.

7. Discussion

The aim of the study was to understand the difference between the levels of depression, anxiety, stress, and empathy between pet and non-pet owners in young adults. Based on the aim, three objectives were formulated, and t-tests and Pearson's correlation were used to get insights into the same. According to the findings of our study, current dog owners had much lower levels of depression, anxiety, and stress than potential dog owners, while both groups reported differences in levels of empathy.

As shown in Table 1 of the results, the mean value of depression among non-pet owners is 14.0 and 13.2 among pet owners, so a slight difference was found between the levels of depression among pet owners and non-pet owners. Studies have shown that a slight or no difference was found in depression among pet and non-pet owners. The calculated t-value is 0.345, and the p-value is 0.731. The t-crit value for df 98 at a 0.05 level of significance is 2.62, and for a 0.01 level of significance, it is 2.36. Since the obtained value of t is less than the critical value. Therefore, the hypothesis is retained, which states that there is no significant difference between the values obtained. Pet owners, when compared to non-pet owners, are less likely to suffer from depression, according to studies. People with few human social supports frequently experience feelings of

loneliness and isolation, which may worsen depression. A pet has the potential to alleviate these emotions by providing companionship for its owner. A pet can also improve a person's connections with other people by acting as a social accelerator and conversation 'icebreaker.' People consider dog ownership a means of providing companionship and much-needed support for themselves.

Kumar, Biswas, and Singh (2022) conducted a study on how having a pet affects depression, anxiety, stress, and anger in adults. The study used the Depression Anxiety Stress Scale-21 (Lovibond&Lovibond, 1995) and the Aggression Questionnaire (Buss & Perry, 1992), which are both well-known tools. The sample size was 185. The ANOVA test showed that pet ownership did not make a difference in the subjects' depression ($F = 2.43, p > 0.05$), anxiety ($F = 2.08, p > 0.05$), stress ($F = 1.50, p > 0.05$), or anger ($F = 0.21, p > 0.05$). The Pearson's correlation coefficient showed that the number of people in the family and the number of older people in the family did not make a big difference in how depressed, anxious, stressed, or angry the subjects were.

Table 2 of the results shows the mean values of pet ownership on the grounds of anxiety. The mean scores of people who own pets are 12.3 and the mean scores of people who do not own pets are 12.6, respectively. According to the facts that were gathered, there is not much of a distinction to be made between individuals who have pets and those who do not. The calculated t value of anxiety is -0.165, and the p value is 0.87. The tcrit value for df 98 at the 0.05 level of significance is 2.62, and at the 0.01 level of significance, it is 2.36. Since the obtained value of t is less than the critical value, the hypothesis is retained, which states that there is no significant difference between the values obtained. Pets calm people and boost confidence. Pets love to listen. This boosts confidence if you feel alone or misunderstood.

Martin F. Bacher T. et al. (2021) A study on the levels of anxiety, depression, and happiness in dog owners as well as potential dog owners was carried out in the United States during the COVID-19 pandemic that occurred in the country. The participants, of whom there were a total of 768 pet dog owners and 767 potential pet dog owners, responded to a survey that was administered online. The poll included validated scores for depressive symptoms, anxiety levels, levels of enjoyment, attitudes toward pets, and levels of loyalty to them, as well as perceived levels of social support. Dog owners have reported having a large increase in the amount of social support available to them in comparison to those who are considering getting a dog. There was no significant difference in the levels of anxiety or happiness reported by either of the two groups.

Table 3 of the results shows the mean values of pet ownership on the basis of stress. The means obtained by pet owners and non-pet owners are 13.5 and 13.9.

According to the values obtained, a minimal difference is seen among pet and non-pet owners. The calculated t value is -0.173 , and the p value is 0.863 . The t_{crit} value for df 98 at the 0.05 level of significance is 2.62 , and at the 0.01 level of significance, it is 2.36 . Since the obtained value of t is less than the critical value. Therefore, the hypothesis is retained, which states that there is no significant difference between the values obtained.

Petting animals reduces stress hormones. Pets provide these benefits in five minutes. Pets aid anxiety sufferers. Petting increases serotonin and dopamine. Nerve-calming hormones. When we laugh and grin at our dogs, we release 'happiness hormones.' Social dogs reduce cortisol. It boosts oxytocin, which soothes. Thus, therapy animals work. Petting enhances touch's calming effect. Stress drops. Dogs calm hyperactive, aggressive kids.

Wright (2018) conducted a survey over the internet to study the association between owning a pet and the amount of stress a person experiences as well as the level of happiness they derive from their lives. The information was collected through the use of an online survey, and the findings of the survey were then disseminated through Facebook and email. The Comfort from Companion Animal Scale, Perceived Stress Scale, and Satisfaction with Life Scale were used in the study. 3,329 adult South Africans made up the primary study sample. White people made up the bulk of respondents (92.7%), followed by women (86.5%) and companion owners (97.7%). Then, Pearson's correlations and one-way ANOVAs were employed to analyze the data.

Table 4 of the results shows the mean values of pet ownership on the grounds of empathy. The mean obtained by pet owners and non-pet owners is 59.9 and 57.1 , respectively. According to the results obtained, slight differences are seen among pet and non-pet owners. The calculated t -value is 0.94 , and the p -value is 0.349 . The t_{crit} value for df 98 at a 0.05 level of significance is 2.62 , and for a 0.01 level of significance, it is 2.36 . Since the obtained value of t is less than the critical value. Therefore, the hypothesis is retained, which states that there is no significant difference between the values obtained.

Owning a pet can provide people with a sense of companionship and social support, which may lead to an increased capacity for empathy. When individuals form close bonds with their pets, they may be more likely to understand and respond to their needs, which can help them develop their ability to empathize with others. This may translate to increased empathy for other living beings, including other people. Furthermore, pet ownership can also provide opportunities for individuals to engage in acts of kindness and altruism, such as volunteering at animal shelters or rescuing stray animals. These experiences may foster a greater sense of empathy and compassion towards all living beings.

Daly and Morton (2015), 'Children with pets who do not show higher empathy: A challenge to current views,' In order to investigate the relationship between human-animal attachment and empathy, a group of kids ($n = 137$) were polled regarding pet ownership and pet preferences. The most notable results, which went against our expectations, were that: (1) there was no difference in empathy between pet owners and non-owners (measured by the Bryan Empathy Index); (2) there was no relationship between empathy and attachment to pets (measured by the Companion Animal Bonding Scale); and (3) higher empathy scores were not associated with indicators of pet preference.

The fifth objective of the study was to study the relationship between pets and non-pet owners on levels of depression, anxiety, stress, and empathy. With reference to Table 5, the results of Pearson's correlation yielded $r = 0.211$, $p < 0.05$. It implies that there exists a significant positive-moderate correlation between depression and empathy among all the participants (pet and non-pet owners). This means that if empathy among pet and non-pet owners increases, then depression levels among pet and non-pet owners decrease.

Pearson's correlation yielded $r = 0.635$, $p < 0.05$. It implies that there exists a strong positive correlation between depression and anxiety among all the participants (pet and non-pet owners). This means that if depression among pet and non-pet owners decreases, then anxiety levels among pet and non-pet owners will also decrease.

The results of Pearson's correlation yielded $r = 0.545$, $p < 0.05$. It implies that there exists a strong positive correlation between depression and stress among all the participants (pet and non-pet owners). This means that if depression among pet and non-pet owners decreases, then stress levels among pet and non-pet owners will also decrease.

Pearson's Correlation yielded $r = 0.228$, $p < 0.05$. It implies that there exists a moderately positive correlation between anxiety and empathy among all the participants (pet and non-pet owners). This means that if anxiety among pet and non-pet owners decreases, the level of empathy among pet and non-pet owners increases.

The results of Pearson's correlation yielded $r = 0.218$, $p < 0.05$. It implies that there exists a moderately positive correlation between stress and empathy among all the participants (pet and non-pet owners). This means that if stress among pet and non-pet owners decreases, the level of empathy among pet and non-pet owners increases.

Pearson's correlation yielded $r = 0.790$, $p < 0.05$. It implies that there exists a strong positive correlation between stress and anxiety among all the participants (pet and non-pet owners). This means that if stress among pet and non-pet owners decreases, then the level of anxiety among pet and non-pet owners decreases.

Therefore, the null hypothesis H05, which stated that there is no significant correlation between depression, anxiety, stress, and empathy among pet and non-pet owners, is rejected.

8. Conclusion

In society, pets are a part of many people's lives, so it is important to know what role they may be playing. According to the findings of our study, current dog owners had much lower levels of depression, anxiety, and stress than potential dog owners, while both groups reported differences in levels of empathy. Even though this study has made a substantial contribution to this field, there is still a need for additional research in relation to the variables that were investigated in this study as well as other variables that are relevant and of interest.

9. Limitations

The limitations of this study are also highlighted below.

Even though the highest frequency among types of pets was reported for dogs and cats, many other types of pets were also reported. Hence, these other pets may also be investigated and reported in future research in order to get an idea of the types of pets popular in the present culture. The gender ratio was not kept track of in the study because it was not a variable that was analyzed. The sample consisted of only adult participants, which is not representative of the entire population of pet and non-pet owners.

10. Suggestions

Further studies can be carried out keeping in mind the following suggestions: Along with collecting an equal amount of data for pets and non-pet owners, equal responses for males and females can also be taken into account to tap into gender differences as well. Incentives can be provided so that the participants are motivated to fill out the questionnaire genuinely, and a large number of participants can be gathered in this way. Moreover, it is also suggested to gather the data physically, as this gives space for rapport formation.

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