

Research Paper

## Empathy and Perceived Stress among Pet Owners and Non- Pet Owners during Young Adulthood

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### ABSTRACT

This study examined the relationship between empathy and perceived stress amongst pet ownership and non- pet ownership. Empathy can be explained as ability to sense other people's emotions and perceived stress can be explained as feelings about the amount of stress that individual is going under that particular time. The aim of the study was to examine empathy and perceived stress among pet owners and non- pet owners in young adulthood. The method used in this study was t-test analysis. The data was collected using two questionnaires i.e., basic empathy scale and perceived stress scale. The online surveys were spread across various states in India- Maharashtra, Madhya Pradesh, Uttar Pradesh, Delhi and Karnataka among young adults (18-24). And 60 responses were collected - 30 pet owners and 30 non-pet owners. The responses were scored according to the manuals of respective questionnaires and later analysed using Microsoft Excel and t-test analysis. The findings of the study showed a positive association between pet ownership and increased levels of empathy and less perceived stress. The adults who owned pets were found to be more empathetic and could deal with stressful situations in a better way.

**Keywords:** *Young Adolescent, Animal-Assisted Therapy*

**O**verview Pets are man's best companion. There are various grounds why dogs are considered as man's best friends; even cats too make a wonderful companion. In fact, any and every pet can make wonderful companions and provide many physical and emotional benefits.

In the movie, *Marley and Me* (2008) John Grogan said an amazing dialogue "A dog has no use for fancy cars, big homes or designer clothes.... Give him your heart and he'll give you his..." In India there's a rise in the pet population from 7 million in 2006 to 10 million in 2014; there was a major leap in e-commerce in 2015 with more websites and the latest apps. The pet-care industries were seen as a part as well. There are apps launched for pet cares.

Clearly people had been enlightened by the benefits and companionship of pets and didn't see it as an extra reason to spend on. The everlasting and existing literature suggests that

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affectionate relationships with pets and good companionship with animals have a great effect on health and enrich their quality of life.

Researches and studies also suggest that pets are stress busters in one's life situations and pet owners have lower rates of heart-related diseases. There is an emerging research done over the past decades which brings the key-note on the human-animal interactions (HAI) and its various benefits over individuals. This not only benefits them in psychological and physiological well-being, but also in emotional growth.

Referring to the previous research it is indicated that the presence of dogs can help in reducing stress in children (Nagengast et al. 1997; Hansen et al. 1999), increase optimism in the individuals. There is a particular area of investigation that is of emerging into studies is the relationship between HAI and empathy. The previous literature proposes that a human's more specifically a child's relationship with a pet companion has very optimistic and compassionate outcome with respect to empathy and compassion levels. Not only emotionally but a better overall growth and development of the child.

Some previous studies also suggest that if an individual has strong attachment for a pet companion, the companionship may help in eliminating pessimistic events like bereavement and help in coping up with stressful events, anxiety and depression. Emerging adulthood or young adulthood is a stage of transition of trying to get settled with no particular structure.

However, amidst figuring out some aspects of life and moving into new roles, stress holds a part of their life. Stress in young adults has been a major affair for a long. It is important to find and educate this group on ways to manage their stress levels, especially with the negative impact that stress can have on both mental and physical health in the long-term (National Institute of Mental Health, 2015).

In that fragile period having an animal companionship might help in reducing a lot of stress. Having a pet also helps in bringing a sense of attachment and as they start feeling more empathetic towards animals. During this age, peer pressure becomes less important and they start focusing on their own personality.

Also finding the right relationships/friendships becomes an important part. Depending on the developmental stages, every adolescent differs in their style of thinking, emotions, social behaviour, and attachment styles. Some might find a bunch of friends easily whereas some might struggle.

And as it is mentioned earlier, they enter into new roles and responsibilities where they might look for a strong support system or companion. Pet ownership can help them go through the situations, become the best companion, and also help in relieving the stress. (Piper & Uttley, 2019) in their article on Adolescents and pets mentioned that many studies talk about pets being beneficial to adolescents and they can act as counsellors, best friends, companions, or even as siblings.

As mentioned in a similar article by (Piper & Uttley, 2019) Pet ownership in adolescents also relates with increase in social behaviours and social interaction. They also mention that pets can bring affection and also endow a sense of attachment. Owning a pet during childhood can also help in language improvement, enhancing their verbal skills, and also get positive responses related to empathy and attachment.

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There is a study done by Stacey Tuttle on The Effect of Pet therapy and yoga programs on perceived stress in college students(December 2007) which supports previous studies that demonstrated the effectiveness of pet therapy and yoga programs in reducing stress amongst college students. The whole study reinforced and brings the effectiveness of pet therapy and yoga programs to reduce stress and help in better wellbeing in the light.

However, there is a limitation to the study that is it is only assessed for the changes in perceived stress over the short term of the period hence, long term sustainability has not been determined yet. As mentioned in a study done by (Khalid & Naqvi, 2016) studies have found that the ones who owned pets during childhood were more empathetic in their later life.

Strong pet attachment and higher empathy levels were noticed in adolescent pet owners. Studies also showed that pet attachment and empathy go hand in hand for adolescents. There are notions that childhood participation with pets brings favourable and empathetic attitudes towards animal welfare in later life. Later studies also pointed that during the Victorian Era, pets were brought for children for the optimistic effect they had on the kindness and compassion that continued in later life as well. According to early studies, Empathy can be defined as fluid. It emphasises the perceived emotional experience of another person.

Empathy is one of the important factors in building good companionship. It plays a huge role in shaping one's behaviour. Empathy indulges optimistic psychological growth and flourishing companionship. And studies show that Pet-ownership or devoting quality time with pets help them become empathetic in later life.

Pets help in increasing empathy, building healthy companionship, and flourish social behaviours Stress is one of the most recognized health risk and most reported issue amongst university students. High levels of stress can affect a person both physically as well as psychologically.

Studies also show that increase in blood pressure is also co-related to the increase in stress in the undergraduate students. There is hike in both during the academics. Being aware that universities have counselling services provided for the students to cope up, there are studies which show that pets help in reducing stress and pet-ownership or Dog therapy can have outstanding effects on students in context to reducing stress and their overall well-being. (Fiocco & Hunse, 2017).

### **REVIEW OF LITERATURE**

The review of literature helps us get acquainted with the current studies and trends in the subject.

It also helps in enriching us with the knowledge of previous works and studies with limitations and research gaps. I have categorized my review of literature into three groups based on the variables of my studies.

- 1.1 Empathy and Attachment among young adults
- 1.2 Pet ownership and non-pet ownership
- 1.3 Perceived stress amongst young adults.

These studies will help in a more clear and profound comprehension of the variables and their correlation.

### 1.1 Empathy and Attachment among young adults.

There are studies done that show the one who has a pet in childhood turns out to be more compassionate in their later life. They build a positive and nurturing attitude towards animals and help individuals in coping up with life transitions however the study was only limited to pet owners which did not leave any ground for non-pet owners to compare.

It is revealed that pet owners who spend more quality time with their pets have higher attachment; however it depends on the value of the relationship (Khalid & Naqvi, 2016). Studies also suggest that children who had scored higher in the pet attachment scale also scored higher on empathy and social Orientation scales than the ones who did not own pets. Children who had higher pet attachment also had better emotional well-being.

However, it's still unclear whether pet ownership has a direct effect on social dimensions or whether it benefits children's socio-emotional development (Vidovi et al., 1999). But to conclude the study says that pets play a role in developing empathy and social behaviour which are important for maintaining close relationships with others.

The study by Daly and Morton connected pet ownership with empathy. It mentioned that adults who owned dogs in their childhood scored higher than those who owned other pets or no pets. (Daly and Morton,2003) Further study was done and the adults were a group as dog owners, cat or other pets owners, and adults who had no pets.

Out of these three groups the group in which adults who owned dogs scored highest in Empathy Quotient social skill factor. They further concluded that pet ownership during adulthood or childhood can bring a difference in personality variables like attitudes and personal behaviours like social skills. (Daly & Morton, 2009).

However, the study was only limited to one university student living in a transient stage like they might be staying with their roommates/ Away from homes or in another city temporarily. Further, there is literature which talks about whether there is any correlation between Pet keeping in childhood and Human attitude in young adulthood. The study supports the view that pets as companions in childhood helped to develop an optimistic and empathetic attitude towards pets in adulthood.

The relationship between pet involvement and adult behaviour doesn't restrict attitudes towards pets. A pragmatic relation was also explored between involvement with pets in childhood and concern about the welfare of animals. It is also stated possible that childhood pet parenting does have a direct influence on the development of human behaviours (Paul & Serpell, 1993).

However, there's still a gap to fill about the reasons why some people feel great empathy about the welfare of animals but on the other side, others act differently to the same. The study also associated childhood attachment to pets and care and empathy towards animals. This study also explored about pet ownership and various pet types.

It examined the companionship and emotional aspects of attachment of children and pets which also developed a positive attitude towards animals and compassionate behaviour (Hawkins & Williams, 2017). However, there needs more study to be done on how and when children find attachments to pets and how there's a positive attitude towards animals.

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There's also a need to explore different children - pet attachment styles and does it influence attachment in children's human relationships. Supporting this literature another study that talks about how pets can provide opportunities for attachment and develop social interactions and attachments by Pat Sable.

Pets can fill in the space of emotional needs and sometimes might fill in space for an absence of human attachment which relates to expanding relationships in a broader way that adds quality to life and gives you a feeling of companionship and comfort. Pets help their owners in building up their life psychologically, physically, and socially better.

(Sable, 1995) The notable conclusion can be that owning a pet during childhood helps in developing attachment styles and also helps in building empathy towards animals and welfare. It also helps in social development and nurturing relationships. The literature talks about an increase in empathy towards animals in children and adolescents and as adolescents are considered as a transitional stage of human development further study needs to be done to see if empathy and attachment styles go hand in hand during young adulthood as well or not.

### **1.2 Pet ownership and non-pet ownership**

There is a study done by James Serpell which was done on 71 adults who either had a dog or a cat and another 26 subjects who did not own a pet. The whole study focused on the acquisition of a pet on human health. The study mentioned that there were no health problems or changes that were seen in the people who did not own a pet.

However, the changes in health which were reported by the pet owners were general like cold, cough, or fever. It was also mentioned in the study that there was an increase in physical exercise for pet owners like walking which had long term beneficial effects on the health. (Serpell, 1991) However, this study has a limited sample size but positive health effects were seen and there needs to be more study done for areas of particular benefits. Another exploratory study was done by Shreya Chaudhary talked about well- being and happiness amongst pet owners and non- pet owners. She surveyed 100 subjects.

50 of them owned a pet and 50 of them did not. She mentioned that there was a remarkable difference in happiness scores between pet owners and non- pet owners. She concluded that rate of happiness was greater for the people who owned than the ones who did not. She also mentioned that having a pet had a positive and better psychological well-being than non-pet owners and pets influence a person well-being (Chaudhary & Srivastava, 2017). However, the samplings were only limited to Haridwar, Uttarakhand.

There's the dirt of literature that contradicts and mentions that there's no significant difference in the physical or psychological health of pet owners and non-pet owners during their childhood (Rehnfeldt, 2020). However, there could be limitations and socio-demographic differences to be considered. Literature also gives an insight that pets or pet therapy has helped in perceived stress during young adulthood.

There's dearth of literature that also mentions that though pets help in perceived stress they cannot be replaced or be considered as substitutes for therapy or counselling. (Joseph et al., 2019) The conclusion can be made that pet owners have a happier and healthier lifestyle in terms of physical, mental, and social aspects. They have a healthier well-being and more social behaviour than the ones who do not own a pet.

### 1.3 Perceived stress amongst young adults

Stress in Young adults has been a major issue for a long time and there have been studies about ways to educate and reduce stress. Pets have always been playing a supportive companion in people's lives. However, a pet's relation with young adults in the context of perceived stress, increase in empathy and attachment styles needs to be established.

The study done by Nitin Joseph mentions that there is a difference in magnitude stress perceived by pet owners and non-pet owners. The study further reflects on how stress correlates with pet attachment. According to this study attachment with pets was observed significantly more amongst unmarried/divorced/widow pet owners compared to the other pet parents. The strength of pet attachment was also associated to the higher emotional element (Joseph et al., 2019).

Like it's said in the study pets need to be considered as an important companion but it cannot be confirmed as an alternative form of therapy in health care. However, the study did not build upon several well-known advantages that are related to pet ownership. There was a study done by which mentioned that the human-animal bond is beneficial for both.

The Pets help in improving the physical health and emotional well-being of both. Spending time together can help in reducing pain, anxiety, and stress. In the study, they compared various aspects of physical and mental, and social well-being. In the study, it was found that maximum number of the pet owners was happy whereas only minimal percent of non-pet owners were happy.

It is also mentioned that pets may help to unwind/relax during stressful events and help in faster recovery following stress. It was concluded that pet owners have a better and healthier well- being as compared to non-pet owners (Raghunath et al., 2017). However, the study was done on small sample size and on residents of Indore only hence could be conducted on a larger scale.

Hence it can be concluded that pets can help in reducing stress and coping up with situations in a better state. However, the pet cannot be a replacement for therapy but be helpful at times of stress full situations.

## **METHODOLOGY**

The data used was collected via Google forms and results were analysed using Microsoft Excel and T-test analysis. Two hypotheses were studied. And the two objectives which were analysed were to examine the difference in Empathy among Pet owners and non-pet owners in young adulthood and to examine the difference in perceived stress among Pet owners and non- pet owners in young adulthood. All the responses had been collected, analysed and results were further derived using T-test analysis. The inclusion criteria was the participant should own and live with a pet in last two months and should know how to read English.

## **RESULTS**

To test the two hypotheses mentioned earlier the data was summarized and analysed. The summaries of descriptive statistics are collected and demographic details of the participants are outlined for this study. The results of the analysis for each hypothesis tested are explained.

## Empathy and Perceived Stress Among Pet Owners and Non- Pet Owners During Young Adulthood

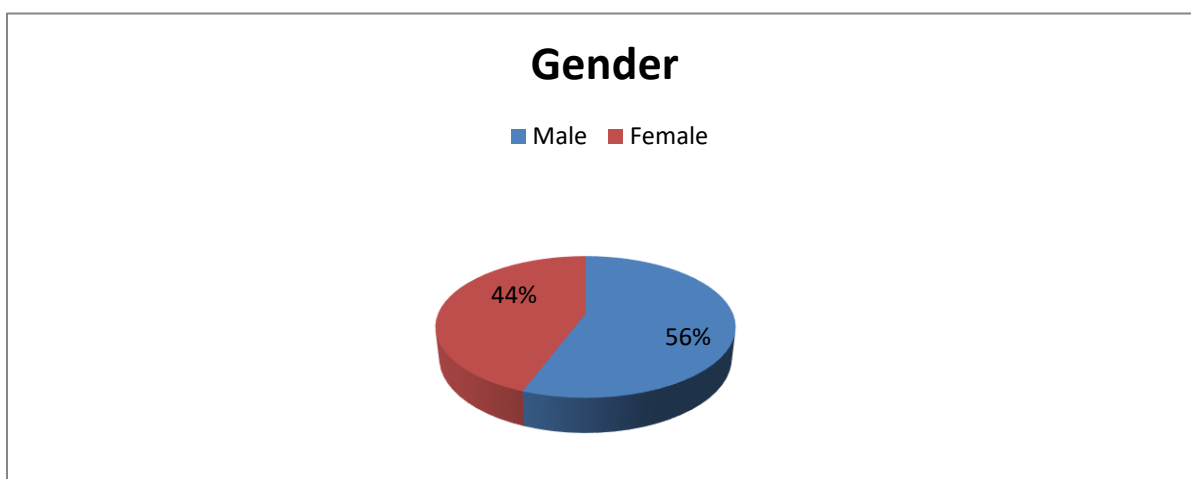
The dependent variables for the study are Empathy and Perceived Stress. The Basic Empathy Scale consisted of 20 items overall. It was developed by Jolliffe & Farrington, 2006. To measure the degree of empathy level, a five point Likert scale was used.

The other dependent variable for the study was Perceived Stress. The Perceived stress scale consisted of 10 items overall. It was developed by Sheldon Cohen. To measure the degree of perceived stress reverse scoring was done using five point Likert scale.

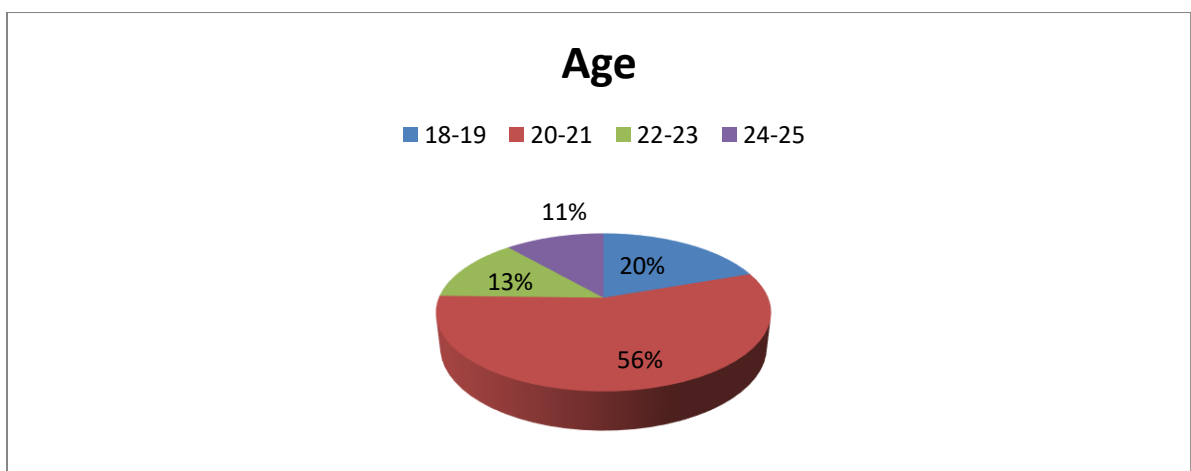
### Demographic Details

*The demographic details of Participants (characteristics)- gender, age, pet ownership and relationship status:*

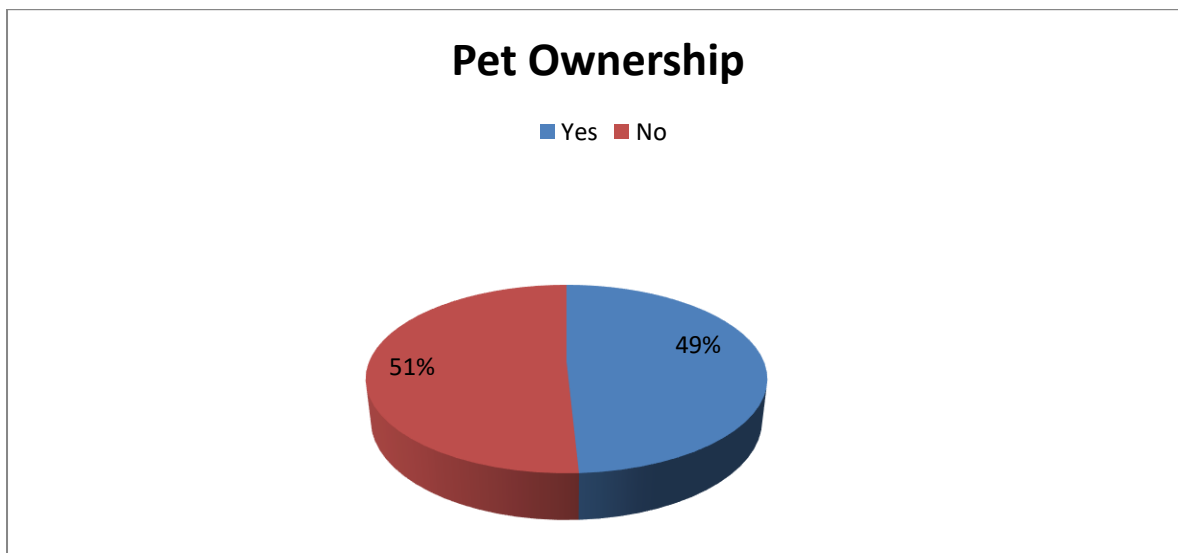
**Graph 1:** *The graph depicts the count of male and female participants. According to the graph 56% of males and 44% of females participated in the study.*



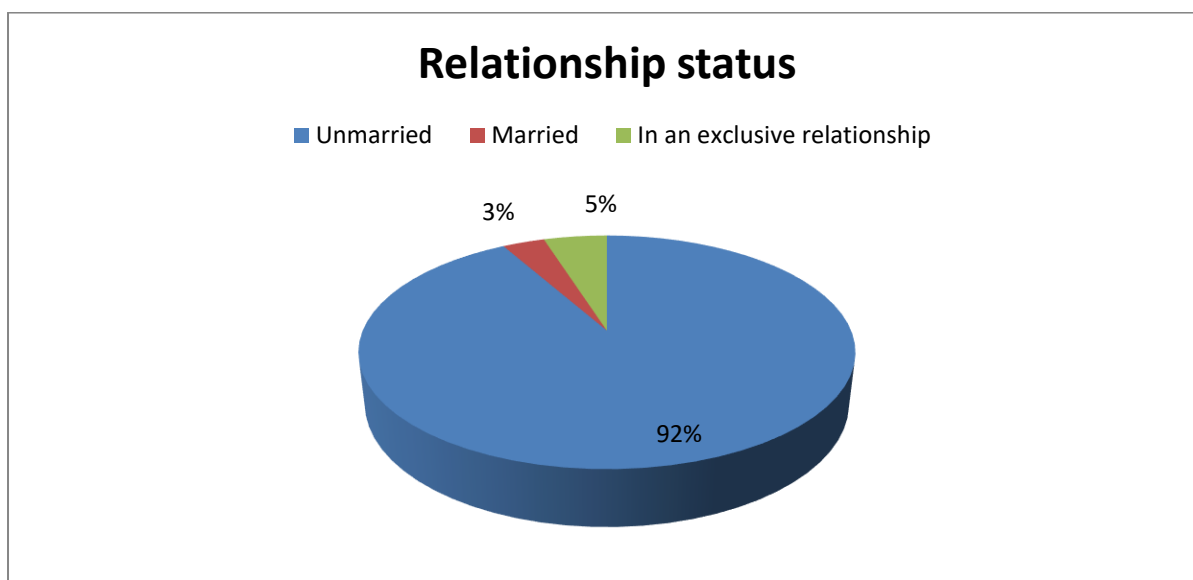
**Graph 2:** *The graph depicts the age group of the participants. The data shows out of the total population size, 20% were between the age group of 18-19 years old, 56% were between 20-21 year old, 13% were between 22-23 year old and 11% were between 24-25 year old.*



**Graph 3:** *The graph shows the ratio of pet owners and non- pet owners who participated in the study. Out of the total population size 51% of the participants owned pet and 49% of the participants did not own a pet.*



*Graph 4: The graph shows the relationship status of the participants. Amongst the total population size there were 3% of the participants were married and 5% of the participants were in an exclusive relationship and rest 92% were unmarried.*

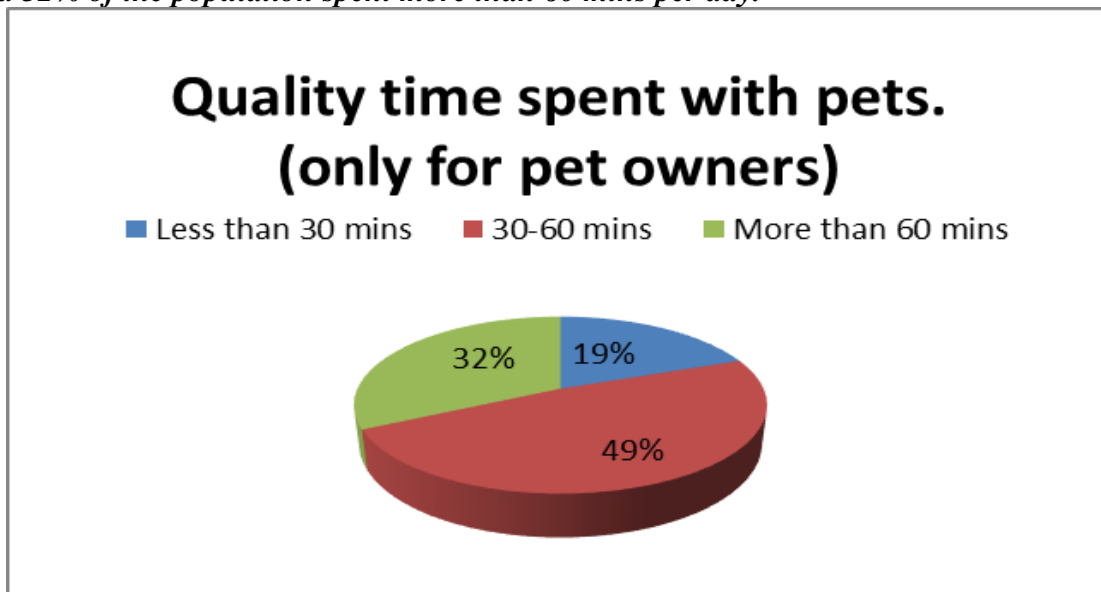


The above tables show percentage of the gender, age, relationship status, and pet ownership status of the participants on which the study was conducted. The study involved 34 Males (44 %) and 27 Females (56 %). Two categories were examined Pet Owners and Non pet owners. Participants from the Pet owners were 30 (49%) and non- pet owners were 31 (51%). The age criteria for the research were for young adults or emerging adults that is 18-24 age range. According to the data above the maximum participation was in the age group of 20-21 years (56%) i.e., 34 participants and the minimum participation was in the age group of 24-25 years (11%) i.e., 7 participants and 22-23 years (13%) i.e., 8 participants. There were 24 participants (20%) in the age group of 18-19 years.

Another factor which was taken into consideration was the amount of quality time spent with the pets (only for pet owners).



**Graph 5:** The graph shows the amount of quality time pet owners spent with their pets. 19% of population spent less than 30 minutes, 49% of the population spent 30-60 minutes and 32% of the population spent more than 60 mins per day.



Only 19% of the participants were reported spending less than 30 mins with their pets. And maximum participants (49%) reported spending 30-60 mins on a daily basis.

**Table 1:** The descriptive statistics for the category of Perceived stress is shown in the table below for pet owners and non- pet owners.

	Non- Pet Owners	Pet Owners
Mean	17.6	17.53
Standard Deviation	5.99	5.78

N= 60

A total of 60 young adults were chosen for this study. The mean score for the pet ownership was 17.53 and that for non-pet owners was 17.60. the standard deviation for pet owners is 5.78 and that for non-pet owners is 5.99.

**Table 2:** The descriptive statistics for Empathy in pet owners and non- pet owners is shown in the table below-

	Non- Pet Owners	Pet Owners
Mean	59.83	60.67
Standard Deviation	4.22	4.44

N= 60

The mean for the empathy levels in pet owners is 60.67 and that of non-pet owners is 59.83. The standard deviation is 4.44 for pet owners and 4.22 for non-pet owners.

The empathy levels for pet owners (M=60.67, SD=4.44, n=30) is greater than that for non-pet owners (M=59.83, SD=4.22, n=30). There was a significant difference seen  $t(58) = 2, p = 0.023$  (1 tail).

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### *Perceived Stress*

The stress level of pet owners ( $M=17.60$ ,  $SD=5.99$ ,  $n=30$ ) was hypothesized to be less than that of non-pet owners ( $M=17.53$   $SD= 5.78$  and  $n = 30$ ). There was a significant difference,  $t(62) = 2.14$ ,  $p=0.46$ (1 tail).

## **DISCUSSION**

The purpose of the study was to study Empathy and perceived stress among pet owners and non- pet owners in young adulthood i.e., age group of 18-24.

There were two dependent variables that is Empathy and perceived stress and the independent variables were pet-owners, non-pet owners and young adulthood. Based on the Objectives there were two hypotheses formed and analysed.

The first hypothesis of the study was there is no difference in Empathy among pet owners and non- pet owners in young adulthood. According to the study the null hypothesis was rejected as there was a significant difference seen amongst the Empathy levels of pet owners and non- pet owners. The pet owners were more empathetic as compared to non- pet owners.

The second hypothesis of the study was there is no difference in perceived stress among pet owners and non- pet owners in young adulthood. According to this study the null hypothesis was rejected as the Perceived stress of pet owners was found to be less than that of non- pet owners. These findings support the studies done by other researchers.

The study done by Khalid Naqvi in 2016 on Empathy and attachment among young adults showed that the ones who have a pet during childhood turns out to be more empathetic in their later life. They build a positive and nurturing attitude towards animals.

Another study done by Raghunath et al., in 2017 was focussed on perceived stress and mental well-being and showed that pets help in improving the physical and emotional well-being. Spending quality time with pets can help in reducing pain, anxiety, and stress. It was also mentioned that pets help to unwind/ relax during the stressful events and can help to cope up better. The study done by Vidovic et al in 1999 also concluded that pets play a role in developing empathy and social behaviour which helps in maintaining relationships.

In the study done by Daly and Morton they found out Empathy Quotient amongst adults who were pet owners (cat and dog) and adults who had no pets. Out of the groups adults who owned dogs scored higher in Empathy Quotient skill factor. This turned out to be more empathetic and compassionate in nature.

Study done by Nitin Joseph also concluded that the stress level correlates with the extent of pet attachment. There was higher attachment with pets observed more amongst unmarried pet owners and strong attachment led to higher emotional element and better well-being.

Article on “ The mental health benefits of having dogs on college campus” by(Adams et al., 2017) also added some light on the literature. According to the study college students go through anxiety stress and depression and other psychological challenges. Conclusion for that was mentioned as bringing pets on the college campus can be an inexpensive but effective therapy for students and can help them in being optimistic as well as help them in betterment of their physiological and psychological growth.

This study supports the above-mentioned studies that reflects on pets play an important role in young adolescence helping in overall growth – Physical, Psychological and emotional. It helps an individual being more empathetic towards animal welfare as well as helps in coping up with the stressful situations in a better way.

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#### **Conflict of Interest**

The author(s) declared no conflict of interest.

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