

Attachment Style towards Pet Dog: An Age and Sex Related Study

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Abstract— The study has been designed to examine the sex and age related difference in the attachment style towards the pet dogs. For this purpose, 20 dog-owners (10 men & 10 women) between the age group of 18-48 were selected. CENSHARE pet attachment survey (27 statements) and a self designed questionnaire (5 statements) based on the external factors were administered for the assessment of Proximity Maintenance and Safe Haven components (based on Bowlby's attachment theory). The data was divided into age brackets of 18-28 and 28-48 to determine the differences in attachment between the two age groups. The Mean and standard deviation were calculated for men and women dog owners for both the components, and Cohen's d was calculated for the comparison. It was hypothesized that there would be a statistical difference in the attachment style of men and women towards their pet dog and, age would play an important role in the differences in the attachment style. Results revealed that women scored higher than men on overall attachment and the two components separately. For the two age brackets, women scored higher in both the components except men showed a higher score in the Proximity Maintenance component.

Keywords— Bowlby, Attachment, Proximity Maintenance, Safe Haven, Men, Women

I. INTRODUCTION

Exploring the connections between the attachment style of men and women with their pet dog is an important one in order to explore the extent to which men and women rely on their pets for comfort, love and companionship. The connection between humans and pets' dates back from 32,000 years ago when the dogs were first domesticated (Lee, 2013). 'This relationship and attachment between human and pets is more consistent and reliable than the human-human relationship' (Dotson & Hyatt, 2008). Taking into account the various studies of human-pet attachment, it would be interesting to understand the overall context of the difference in the attachment style through a gender-based study including the two genders—men and women. This study focuses on the attachment style of men and women to identify if there are differences in the extent of attachment.

The basis for most of the studies related to human-dog attachment has been formulated by John Bowlby, who was a British psychologist, through his attachment theory. According to him,

“Attachment' is defined as a lasting psychological connectedness between human beings” (Becker, 2012). His theory forms the basis for human-infant attachment where the child occupies the role of a dependent figure and parents occupy the role of what Bowlby calls “attachment figures” (Zilcha-Mano, Mikulincer, & Shaver, 2011, p. 345). His theory is also used to examine the human-pet attachment where pets serve as attachment figures and the attachment

bonds can be formed with them. Bowlby describes the four main components of attachment in his theory: Safe Haven (seeking comfort from the caregiver), Secure Base (reliable foundation given by caregiver), Proximity Maintenance (being close to caregiver while exploring the surroundings), and Separation Distress (being unhappy when separated from the caregiver; Becker, 2012).

The domain of human-pet attachment holds certain suppositions by the psychologists. Evidence suggests that studies based on loneliness, grief, emotional attachment have been done. According to Rynearson, humans and pets can be significant attachment figures for one another ((Smolkovic, Fajfar, & Mlinaric, 2012). 'James Serpell, professor of Animal Ethics and Welfare at the University of Pennsylvania found that the pet owners showed a reduction in health problems and a better score on the General Health Questionnaire' (Archer, 1997). “This was done by noticing the changes and behaviour following acquisition of a dog or cat and in a control group without pets”

Aaron Katcher tried to extend the application of the Bowlby's attachment theory to calculate the extent of human attachment with their pet dog through a self-designed questionnaire' (Archer, 1997). The final data indicated high level of human attachment towards their pet dog where some “48% people defined their dog as a family member, 67% had a photograph of the dog, 73% let it sleep in their bedroom...” (1997). John Archer (1997) conducted an experiment on human-pet attachment by taking into account the caring and security aspect in his questionnaire. “Through

his study, he found that the bond which humans share with their pet had an element of reassurance and security and their pet could substitute their parental figures” (1997).

A group of researchers from Massachusetts General hospital in 2014 performed an experiment to understand the activation of brain structures when women view images of their children and their dog (Stoeckel, Palley, 2014). This was done to check the differences in attachment on the neurological basis. The researchers found that the brain activity which the participants showed for the emotion, reward, visual processing while viewing their child or dog was the same (Stoeckel, Palley, 2014).

Steward presented various investigations of grief as a result of pet loss (Archer, 1997). The loss of a pet can lead a person to enter the state of grief and can be very depressing. She found that to study the extent of human attachment with their pet dog, grief was the main factor to test the results (1997). ‘Due to loss of the pet, 18% people were so disturbed that they had difficulties in carrying on with their usual routine’ (1997). It was also found that there are differences in the personality traits between dog and cat people (Coren, 2010). ‘An experiment in the psychology department at University of Texas was conducted to find if there are differences in the personality traits between dog and cat people. It was found that dog owners had a higher score on dominance, extraversion and self-esteem’ (Gosling, Sandy, & Potter, 2010).

The purpose of this study was to identify if there is a significant difference in men and women’s attachment style towards their pet dog and, whether age plays a major role in men and women’s attachment style towards their dog. This tool used for this research was questionnaire. The hypotheses proposed were as follows:

1. There would be a significant difference between the attachment style/component of men and women towards their pet dog.
2. Age would play an important role in reflecting the difference in the attachment style.

II. METHODS

2.1. Overview

The prime purpose of this research was to measure the attachment component of men and women towards their pet dog to find if there is any difference in the attachment component. The attachment style was measured in accordance with Bowlby’s attachment theory which consists 4 elements/ kinds of attachment: Safe haven, Secure base, Proximity maintenance, and Separation distress. Out of these elements, two elements: Safe haven and Proximity Maintenance were used to measure attachment. This was done to refrain the research from being complex. To conduct

the research, two questionnaires were taken: ‘CENSHARE pet attachment survey’ (already existing questionnaire by Halcomb Williams and Richard; David, 2007) and, external factors questionnaire (self-designed questionnaire). The 27 questions of ‘CENSHARE pet attachment survey’ were administered using the two components of attachment style. The five questions comprising the external factors included statements like numbers of pets at home, number of family members living with the pet, and length of ownership.

Once the questionnaires were collected, the scores for the participants were calculated according to the answers on the scale of 1-4 ranging from almost always to almost never. The scores for two elements of attachment component for men and women were taken for calculating their means and standard deviation in order to determine the average scores between the two components. The Cohen’s d was calculated to find the differences between two attachment components for men and women separately.

2.2. Participants

Participants for this research were chosen between the age bracket of 18-50. 20 participants (10 men, 10 women) were selected for this research. Participants were chosen from the Undergraduate students and faculty members of OP Jindal Global University, and the neighborhood. The pet owners from Undergraduate students and the neighborhood were randomly chosen and the faculty members were approached individually. The pet owners from faculty members were recruited by seeking help from one or two faculty members. The scores were divided into two age groups— 18-28 (six women, seven men) and, 28-48 (four women, three men). This was done to compare the attachment component of men and women between different age groups.

2.3. Materials & Procedure

The first questionnaire was the ‘CENSHARE pet attachment survey’ which comprised of 27 questions. The 27 questions were divided into two groups: 17 questions for Proximity Maintenance, & 10 questions for Safe Haven. This was done to measure the two components of attachment through Bowlby’s attachment theory. The second questionnaire was a self-designed questionnaire which comprised of 5 questions: 3 multiple choices & 2 subjective questions. This questionnaire was based on external factors which influenced this research.

Participants were provided with the consent form which included the information concerning this research and their consent was taken. Participants had the choice to withdraw from participating in this research. They were then provided with both the questionnaires: Censhare pet attachment survey & Self-designed questionnaire. All the participants

were required to fill the same questionnaires for this research.

III. RESULTS

a) Overall average attachment for men and women

The mean score of men’s overall attachment component with their pet dog is 11.4 (*SD* = 5.61) and the mean score of women’s overall attachment component with their pet dog is 12.45 (*SD* = 7.14) (see Figure 1). As per Cohen’s *d*, the difference in the overall attachment style of men and women with their dog is small (0.14) in size as *d* > 0.20 (see Table 1).

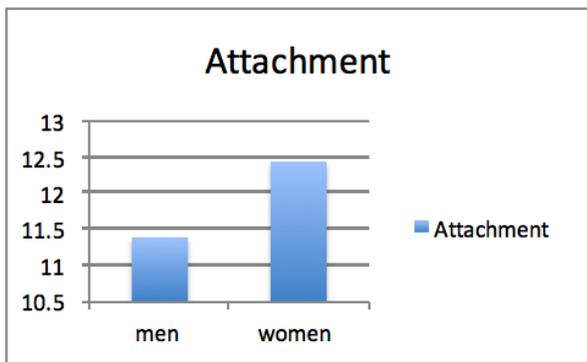


Figure 1: Average mean of men and women attachment component with their pet dog

Table 1: Mean and Standard deviation of overall average attachment of men and women

	Gender	
	Men	Women
Overall attachment (Proximity Maintenance and Safe Haven)	11.4 (5.61)	12.45 (7.14)
<i>d</i> = 0.14		

b) Attachment for men and women in terms of Proximity Maintenance & Safe Haven.

As Table 2 shows, in case of the Proximity Maintenance attachment component, men have a mean score of 16 (*SD* = 2.26), while the women have a mean score of 17.5 (*SD* = 2.41). According to the sample size, this represents a medium-sized difference between two means as *d* = 0.62 (see Table 2).

In case of the Safe haven attachment component, men have a mean score of 6.8 (*SD* = 0.91) while the women have a mean score of 7.4 (*SD* = 0.84). The difference between two groups (men and women) is medium as the Cohen’s *d*

represents a score of 0.66 for this research (see Table 2).

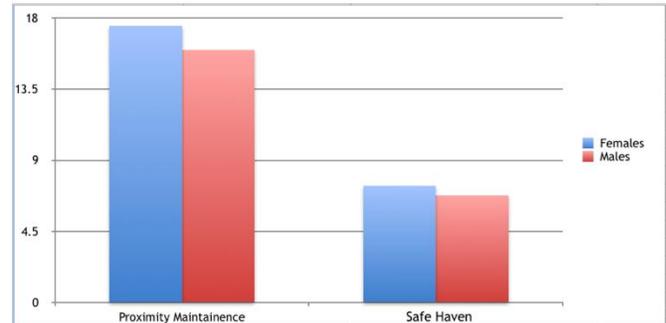


Figure 2: Attachment difference in terms of Proximity Maintenance & Safe Haven

Table 2: Mean and Standard Deviation of men and women attachment in terms of Proximity Maintenance & Safe Haven

	Gender	
	Men	Women
Proximity Maintenance	16 (2.26)	17.5 (2.41)
<i>d</i> = 0.62		
Safe Haven	6.8 (0.91)	7.4 (0.84)
<i>d</i> = 0.65		

c) Attachment of men and women for 18-28 and 28-48 age bracket in terms of Proximity Maintenance & Safe Haven

As evident from figure 3, there are differences in the means of attachment component of men and women in the two age brackets: 18-28 and 28-48 in terms of Proximity Maintenance and Safe Haven. In the 18-28 age category, the average score for Proximity Maintenance component for women is 16.5 (*SD* = 2.73) which is slightly less than the average score of 16.85 (*SD* = 1.86). It is represented in Table 3 that there is a minimal difference (*d* = 0.12) between the two means as *d* < 0.20. On the other hand, in the Safe Haven component of the 18-28 age category, the difference between the two means is larger than 0.80 (*d* = 0.91) representing a large difference.

In the 28-48 age category, 7 (*SD* = 1.15) is the men’s average rating and 6.66 (*SD* = 0.81) is women’s average rating in terms of Safe Haven component. In this sample, on an average, men and women have similar attachment in terms of Safe Haven component. As per Cohen’s *d*, they have minimal distance (0.29). The average score of Proximity Maintenance attachment component is 19 (*SD* = 0) for women and 14 (*SD* = 2.00) for men. This represents

a very large difference ($d = 2.5$) in the means as $d > 1.20$ (see Table 3).

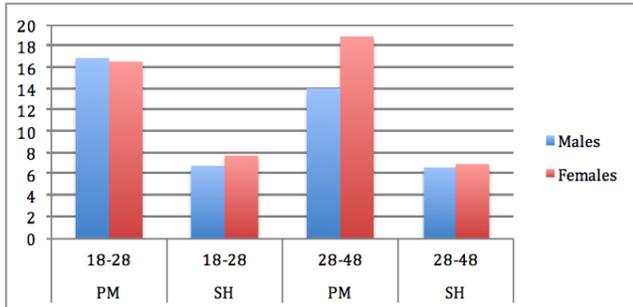


Figure 3: Average mean of attachment style of men and women in the two age brackets (18-28 and 28-48) in terms of PM and SH (Proximity Maintenance and Safe Haven)

Table 3: Mean and standard deviation of men and women attachment in the two age brackets (18-28 and 28-48) in terms of PM and SH

Age bracket	18-28		28-48	
	Mean	SD	Mean	SD
Proximity Maintenance				
Subject				
Men	16.85	1.86	14	2.00
Women	16.5	2.73	19	0
	$d = 0.12$		$d = 2.5$	
Safe haven				
Men	6.85	0.89	6.66	0.81
Women	7.66	0.81	7.00	1.15
	$d = 0.91$		$d = 0.29$	

From the representation in above tables and figures, the difference in men and women attachment style with their pet dog is evident.

3.1. Comments

The results described above suggested that there is a statistically significant difference in men and women attachment style with their pet dog (see Table 1). The overall attachment score of women is higher than that of men but the difference is very slight as they have a minimal difference of 0.14. Therefore, the hypothesis that there is a difference between the attachment style of men and women with their pet dogs weakly supported. Secondly, there is a statistically significant difference in the attachment style for Proximity Maintenance and Safe Haven attachment

component (see Table 2). On the basis of results for both the attachment components, women represent a higher score for attachment as compared to men (see Figure 2). The scores for Proximity Maintenance component (18-28) are higher for men as compared to women which depicts that young men have higher attachment in this category for this sample (see Figure 3). On the contrary, women’s attachment in terms of Safe Haven component is more than that of men. In this sample, the scores in 28-48 age category depicts that the men represent a slightly higher attachment than women towards their pet dog in terms of Safe Haven component. In the same age category, the Proximity Maintenance component for women is higher than that of men. Therefore, the hypotheses that age plays an important role and reflects differences in attachment style holds true. Thus, the two hypotheses have been supported by the findings of this research.

3.2. Inferential statistics

Since the sample size of the research is very small and not been selected by using any control technique, it does not represent the population of men and women of particular age groups. The attachment style of men and women in terms of Proximity Maintenance and Safe Haven component may not be applicable for the population. In the sample size of this research, most of the subjects fall under the age group of 18-28 due to which it cannot be generalized to entire population including all age groups. This small sample size does not represent the entire population of the age group of 18-48 years. As this small sample size does not represent the entire population, the chances of occurrence of sampling error is possible. The results in this research are just an approximation according to the sample size. Also, in the 18-28 age bracket, 7 women fall under the age of 21. Therefore, the difference is specific to this sample. If the sample size is increased and authentic, the results might be different from this research.

IV. DISCUSSION

This study investigated if there is a difference between the attachment style of men and women towards their pet dog and the role of age in this context. This was studied using the two components of Bowlby’s attachment theory: Proximity Maintenance and Safe Haven through which the scores were deduced. Two hypotheses, discussed previously, were demonstrated. There is a statistically significant difference in the attachment style. However, it is worth noting that in the overall attachment score, and in the attachment difference in terms of Proximity Maintenance and Safe Haven, women have higher score than men. This indicates that women feel a higher need to seek comfort

from their dog and to stay close to their dog. Higher scores of attachments for men were reported only in the 18-28 age bracket in terms of Proximity Maintenance. These findings support that women have higher attachment towards their pet dog as compared to men.

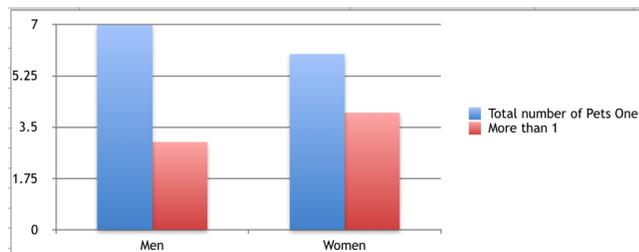


Figure 4: Number of pet dogs in men and women's house

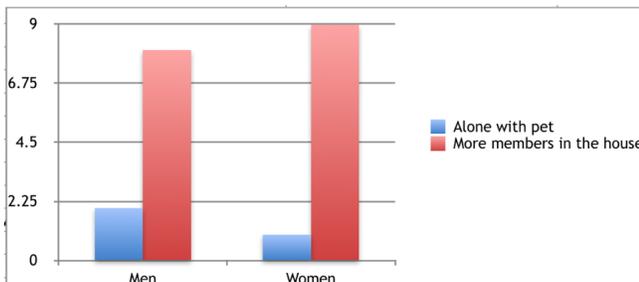


Figure 5: Number of members in the family living with the pet dog

The number of pets owned by the individuals in the sample could also have a direct influence on the extent of attachment. It was reported that seven men had one pet and three men had more than one pet; six women had one pet and four women had more than one pet (see Figure 4). Men and women living alone with the pet or more members living with the pet dog also has an influence on attachment. However, in this research, no correlation has been found based on the external factors and the level of attachment.

The findings of this research are supported by the research conducted by John Archer (1997) mentioned previously. His results indicated that there is varied level of attachment for different individuals towards their pet and, there is an element of reassurance and security provided by the pet dog (Archer, 1997). The results of this research indicate similar findings based on the two components which state that there is a 'need to stay close to the pet' (Proximity Maintenance) and, 'seek comfort from the dog' (Safe Haven; Becker, 2017). Even though the components assessed are different, the attachment measures are similar to some extent.

This research has a number of limitations, first being the

homogeneity of samples. Most of the samples were from the dog-owners in OP Jindal Global University. It also hindered the study of external factors affecting the attachment style as the students live on campus. For example, questions like "On a daily basis, how much time do you tend to spend with your pet" from the external factors' questionnaire (self-designed questionnaire) could not be answered and were left blank by some participants. Due to this, all the external factors questionnaire could not be answered. Second, the sample size of this research is small (10 men and 10 women). The results could vary for the samples of different cultural backgrounds across the population. Due to the homogeneity factor and sample size, this result cannot be fully generalized. Third, most of the samples in this study fall between the age group 18-28 for men and women. As the sample size for this study is 18-50, it was difficult to find participants among older age groups. This shows the need for further analysis of gender based human attachment and the comparison between the different scores.

The results of this research indicate scores restricted to the sample size. It would be interesting to carry out a longitudinal research by increasing the sample size and taking into account multiple external factors which could lead to different results. Taking into account the results of Censhare pet attachment survey and using them into this research could also influence the results. Further researches should take into account the other two components of Bowlby's theory: a) Secure Base; b) Separation distress. Even though attachment by measuring certain demographic factors based on 'length of ownership' or 'number of pets' remain unexplained, this paper brings us closer to understanding that there are significant differences in the attachment style.

Despite of the limitations of this research in the light of the approximation of the accuracy of results, it can be concluded that the human-pet relationship in terms of its attachment is different for men and women. The results have important discoveries that can reflect one to understand the human-dog relationship.

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