

Psychological profile of pet owners in Isfahan, Iran

Perfil psicológico de tutores de animais em Isfahan, Irã

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ABSTRACT

This study aimed to compare the psychological profile of pet owners with the ones who didn't own any pets. The research method was a casual-comparative study. Pet owners and people without pets were included in this research which was done in Iran in February 2017. One hundred and sixty people were selected in this sample in a nonrandom available sampling method and matched in terms of demographic characteristics. Eighty people, pet owners, were referred to the veterinary clinics and 80 didn't own any pets. They were assessed by a psychological signs inventory. The result of ANOVA indicated that pet owners and those without any pets were indifferent in the characteristics of anxiety, obsessive-compulsive disorder, hostility, paranoid, interpersonal sensitivity, and psychosis, while those without any pets, statistically had a higher average in somatization and depression than the pet owners and it could be justified by corrective emotional experience, displacement, and sublimation in the pet owner. This statistic can be based on the fact that pet owners use these animals as an object for thrilling topics which is a factor to decrease their psychological stress and increase their physical health.

Keywords: Pet. Psychological profile. Psychosomatic disorder. Depression disorder.

RESUMO

O presente trabalho é um estudo comparativo casual que comparou o perfil psicológico de tutores e não tutores de animais de estimação. Os tutores e os não tutores foram incluídos na pesquisa realizada no mês de fevereiro de 2017 em Isfahan, Irã. Os 160 participantes da investigação foram selecionados de forma não casual e associados com base nas suas características demográficas. Os 80 tutores de animais haviam procurado clínicas veterinárias e o grupo controle nunca teve qualquer animal de estimação. Os dois grupos foram submetidos a um questionário psicológico. O tratamento estatístico dos resultados por análise de variância revelou a ausência de diferença entre os dois grupos para as características: ansiedade, distúrbios obsessivos-compulsivos, hostilidade, paranoia, sensibilidade interpessoal e psicoses. Contudo, foi constatado que os não tutores de animais de estimação apresentaram uma média estatisticamente mais elevada de somatização e depressão, o que pode ser justificado por uma experiência emocional corretiva, deslocamento e sublimação evidenciada nos tutores que pode ser atribuída ao fato dos animais constituírem um fator de valor emocional que contribui para a redução do estresse psicológico e melhoria da saúde física e emocional dos seus tutores.

Palavras-chave: Animais de estimação. Perfil psicológico. Distúrbios psicossomáticos. Distúrbio depressivo.

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Introduction

Nowadays, there is a great desire among people to join nature and other living creatures. Although human beings had lived in this nature for a time, today's people, instead of returning to their arms, seek to interfere in the life of the creatures and to be dependent on them and make them dependent on humans. Various studies have pointed to this dependence on a range of behaviors that even seeing animals can decrease physiological responsiveness to stressful stimuli and increase positive mood (Meyer & Hamel, 2014). Also, the study of human-animal interaction (HAI) and the result of human-animal relationships (HARS) and human-animal bonds (HAB) are a current topic in comparative psychology (Hosey & Melfi, 2014). The human-animal relationship implied human-animal bonds and also significant physical, psychological, and physiological benefits (Cole & Gawlinski, 2000; Serpell, 1991; Walsh, 2009; Wells, 2009).

Moreover, having direct contact with animals reveals short-term and long-term health benefits to humans. Wells (2009) observed that the mere presence of companion animals can provide short-term health benefits, help reduce the response of the autoantibody to moderate stress conditions, and also lead to a transient decrease in heart rate and hypertension encountered by various stressors during the presence of the animal. In addition, pets can maintain the long-term benefits of treatment, prevent us from sickness, and even increase the recovery of chronic physical ailments. Generally, human-animal interaction can affect anxiety reduction (Gee et al., 2017; McNicholas et al., 2005), reduction of depression and heart disease (Ambrosi et al., 2019; Gee et al., 2017; Müllersdorf et al., 2010; Rhoades et al., 2015) aggression reduction (Beetz et al., 2012), decrease in hypertension (Allen et al., 2002; Casciotti & Zuckerman, 2019), risk reduction of cardiovascular diseases (Ambrosi et al., 2019; Krittanawong et al., 2020; Qureshi et al.,

2009), improvement in psychosis, improvement in mental health (Powell et al., 2018) and improvement in social health (Beetz et al., 2012; Rhoades et al., 2015), increase in social interactions (Wells, 2009) and participation in "aid and collaboration" activities (Hart, 1995).

Many studies have been carried out to investigate different personality dimensions and the presence or absence of mental disorders among individuals with and without pets. In this regard, Parslow et al. (2005) found that taking care of pets has a relationship with negative health outcomes including symptoms of depression, poorer physical health, and higher rates of using painkillers. However, according to Ambrosi et al. (2019), owning a pet leads to socialization, reduction of depression, and anxiety. Non-pet owners reported higher levels of psychosis, depression, and physical health. Beetz et al. (2012) also suggested that the interaction of humans with animals affects the human's interaction and related factors such as honesty, empathy, aggression, and positive mood. Furthermore, Rhoades et al. (2015) state that animal ownership has a relationship with the decrease in housing use and finding the job and fewer symptoms of depression and isolation. Kajbaf et al. (2011) found out that there were differences between the two groups in the subscales of anxiety symptoms and sleep disorder, affective relationships. Thus, a review of the literature on personality differences between pet owners and those without a pet, reveals numerous deficiencies. Therefore, the present study aimed to explore the psychological profile of individuals with and without pets using the SCL_90 Psychological Symptom Questionnaire which examined nine dimensions of depression, anxiety, obsessive-compulsive disorder, somatization, phobia, paranoid thoughts, interpersonal sensitivity, hostility, and psychosis.

At the clinical level, depression is a symptom that is dominated by depressed moods and is expressed by verbal or non-verbal expressions of sadness, anxiety, or arousing emotions (Dadsetan, 2014). In addition, anxiety is a pervasive, unpleasant, and vague feeling that is often accompanied by Autonomic Nervous System such as headaches, sweating, palpitations, chest tightness, and pain in the stomach. Anxiety disorders have many side effects and are often chronic and resistant to treatment. Moreover, the obsessive-compulsive disorder also presents a variety of symptoms, including automatic negative thoughts, obsessive-compulsive behaviors, mental obsession, and compulsion. Physical symptoms disorder is sometimes another form of mental disorder that has a relationship with depression and anxiety disorders (Sadock & Sadock, 2015). People with physical symptoms disorder intensify and reinforce their

physical sensations. They have less tolerance for physical discomfort (Dadsetan, 2014). The term phobia means the extreme fear of a particular subject, condition (Sadock & Sadock, 2015). Furthermore, skepticism and long-lasting mistrust of all individuals are characteristics of patients with paranoia. These patients are often hostile, irritable, and angry (Whitbourne & Halgin, 2012).

Interpersonal sensitivity also reflects feelings of inadequacy and inferiority, especially compared to other people. This feeling of inadequacy and inferiority leads to impaired communication with others (Saatchi et al., 2011). The concepts of hostility and aggression are also generally used to describe negative and destructive attitudes and punitive behaviors (Asghari Moghaddam et al., 2008). In addition, psychosis represents a life of isolation and disintegration for humans, ranging from mild (which includes personality abhorrence) to acute disease. In this dimension, one has psychopathological characteristics such as delusions, illusions, disturbed speech, highly disturbed or catatonic behavior (Saatchi et al., 2011; Whitbourne & Halgin, 2012).

Previous studies have shown that while there is little research on comparing the personality dimensions of individuals with and without pets in Iranian society, many kinds of research have mainly compared individuals' mental health in general (Chubineh et al., 2008; Mirghaed et al., 2013; Zardkhaneh et al., 2011).

Therefore, given the importance of examining the personality dimensions of individuals with pets as well as the deficiencies in the research related to this domain, the present study seeks to answer the question of whether there is a relationship between the psychological profile of individuals with and without pets.

Method

Participants and procedures

The present study was descriptive and causal-comparative. The population consisted of all pet owners and those without pets living in Isfahan. In the causal-comparative studies, the number of individuals in each group should be at least 30 (Delavar, 2005). In this study, 80 pet owners and 80 non-pet owners were included. Pet owners were selected by convenience sampling from the veterinary clinics and non-pet owners were selected by convenience sampling based on the gender homogeneity with the previous group so that 40 women and 40 men (over 18 years old) were selected in both groups to complete the psychological symptoms questionnaire. Inclusion criteria included those over 18 years old who can read and write and have the desire to complete the questionnaire, with physical and mental health and no experience of addiction.

Measures

SCL_90

The present study was an SCL_90 psychiatric symptom questionnaire consisting of 90 questions, designed for the first time to show the psychological aspects of physical and mental patients. The initial form of the questionnaire was introduced by Derogatis et al. (1973), revised based on clinical evidence, experience, and psychometric analysis, and then finalized. The answers to each question are identified on a 5-point scale ranging from "not at all" to "very much" (Derogatis & Unger, 2010). The questionnaire covers nine dimensions of anxiety, depression, obsessive-compulsive disorder, somatization, phobia, paranoid thoughts, interpersonal sensitivity, hostility, and psychosis.

The data of Martinez et al. (2005) research support the reliability and validity of the SCL-90-R as a measure of psychological symptoms. In Iran, the results of the study by Modburnia et al. (2010) indicate that there is a significant correlation between the two dimensions of SCL-90 and MMPI scales, most of which are related to anxiety and depression of SCL-90 with MMPI, 1/2 and obsessive-compulsive disorder. The SCL-90 discretization with schizophrenia MMPI was 0.5. Also, the highest coefficient of validity for depression was obtained using Cronbach's alpha of 0.8 and Cronbach's alpha of 0.70.

Results

The descriptive findings of the research are presented in Tables 1 and 2. According to Table 1, the average age and standard deviation in the sample were 37.60 and 10.63, and the highest and the lowest values were 65 and 19, respectively. The results of Table 2 also showed that the frequency of males and females in the sample is equally 80. In terms of marital status, 40 are single, 118 are married and 2 are divorced. Of these, 64 are high school graduates, 84 are bachelors, and 12 have M.A. and higher. Moreover, 77 of them are unemployed and 83 are employed. 47 keep birds, 29 keep dogs and cats and 4 keep other types of animals.

According to Table 3, the average between the group with and without the pet in terms of physical complaints is lower in the group with a pet. According to Table 4, it is observed that there is a significant difference between the group with and without the pet in terms of variable physical complaints ($p < 0.004$), and in terms of the variable of depression ($p < 0.005$). However, the table indicates that there is not a significant difference between the group with and without a pet in terms of obsessive-compulsive variables, interpersonal sensitivity, anxiety, hostility, phobic anxiety, paranoid, and psychotic thoughts.

Table 1 – Mean, standard deviation, highest and lowest age score of persons included in the investigation of the psychological profile of pet owners in Isfahan, Iran, 2017

Statistical characteristics of variable	average	derivation	higher	lower
age	37.60	10.63	65.00	19.00

Table 2 – Frequency of Gender, Marital Status, Education, Employment Status, and Pet Type of persons included in the investigation of the psychological profile of pet owners in Isfahan, Iran, 2017

variable	group	frequency
gender	female	80
	male	80
Marital status	single	42
	married	118
education	High school and lower degree	64
	B.A. or B.S.	84
	M.A. or higher	12
Employment status	unemployed	77
	employed	83
Type of pet	bird	47
	Dog and cat	29
	others	4

Table 3 – Descriptive findings of variables of persons included in the investigation of the psychological profile of pet owners in Isfahan, Iran, 2017

The dependent variable	Pet owners		Without pet	
	Mean	Standard deviation	Mean	Standard deviation
Physical complain	9.75	7.73	10.54	8
Obsessive-compulsive	10.09	6.60	10.15	7.14
Interpersonal sensitivity	10.03	6.23	7.50	6.17
depression	14.22	11.11	14.43	11.08
anxiety	8.96	5.96	7.93	7.20
hostility	6.43	4.66	4.45	387
Phobic anxiety	4.56	4.06	4.67	4.69
Paranoid thought	8.60	5.05	6.32	4.87
psychosis	7.67	6.39	7.70	6.37

Table 4 – Summarizes the results of ANOVA on the mean scores of the two groups * of persons included in the investigation of the psychological profile of pet owners in Isfahan, Iran, 2017

The dependent variable	The sum of the squares	Degree of freedom	Average of squares	F	Sig.
Physical complain	388.988	1	388.98	8.33	.004
Obsessive-compulsive	106.775	1	106.77	2.98	.086
Interpersonal sensitivity	66.692	1	66.692	3.07	.081
depression	484.630	1	484.630	7.97	.005
anxiety	83.866	1	83.866	2.38	.124
hostility	2.618	1	2.618	.23	.631
Phobic anxiety	2.225	1	2.225	.201	.655
Paranoid thought	55.085	1	55.085	2.34	.128
psychosis	7.837	1	7.837	.27	.600

*= owners x not owners of pet animals; According to Table 3, the average between the group with and without the pet in terms of physical complaints and depression are lower in the group with a pet.

Discussion

The results of Table 4 showed that there was a significant difference between the group with and without the pet in terms of physical complaints and according to Table 3, the average is lower in the group with a pet.

The finding is in line with the research by Wells, (2009), and Rhoades et al. (2015), but inconsistent with the findings of Müllersdorf et al. (2010). To explain, it can be said that the issue of somatization is a complex one and cannot be explained simply because somatic symptom disorder is sometimes another form of other mental disorder and is most commonly associated with depression and anxiety disorders (Sadock & Sadock, 2015). However, based on previous findings, pets can prevent illness, improve the recovery from illness, and even serve as an early warning system for certain types of chronic illness (Wells, 2009).

Physical symptoms disorder is also seen as a defense against guilt, a sense of inner malice, low self-esteem, and a symptom of excessive self-care. Thus, physical suffering becomes a means of redress and atonement and is regarded as a proper punishment for past wrongs (whether real or imaginary) and a feeling of guilt and evil (Sadock & Sadock, 2015). Aggressive and hostile desires towards others, which are stressful by themselves, turn into physical complaints through retribution and displacement. The anger of such patients is rooted in past failures, but these patients express their anger in the present by first seeking others' attention and help and then refusing that help due to inefficiency. Failure to satisfy the needs and desires can lead the person to somatization and expressing psychological conflict with the body, and here we will see a vicious cycle of anxiety, depression, and somatization. In the meantime, some people can reduce mental stress and increase physical health, by using defense mechanisms such as displacement and reaction formation to change the hostile desire for attention and care of the animals. Some pet owners assume the pet as a member of the family and a particular and unique creature, feeling closer to it (Hart, 1995). Therefore, the animal is used as an object to express high emotions like anger or guilt. Such anxious feelings are often reduced by having a companion dog. It's a form of comfort and self-confidence for anxious people. Also, the human-animal relationship is a two-way relationship in which the animal and its owner share love and feelings that are very precious in this respect. Moreover, interacting with the animal can also be considered a form of exaltation. Focusing on this topic, we can once again review the definition of psychosis. Psychosis is a mental disorder in which thoughts, emotional reactions, the ability to recognize reality, and the ability to communicate with

others are so impaired that greatly interferes with one's capacity to interact with reality. Therefore, the individual disconnects with reality and, instead of resolving the problem with the person involved in causing trauma, begins to resolve the internal conflict with the creature that has nothing to do with reality and the problem within it. This process is a kind of corrective emotional experience, not neurosis but psychotic. Such a person can't communicate with other humans and does not have a proper emotional response to the outside world, which can be perceived by their interaction with animals rather than humans. Thus, these events reduce stress while enhancing the enjoyment of life (McNicholas et al., 2005) and not only reduce the mental and physical stress associated with the psyche but also prevent aggravating or suffering other illnesses in the somatization domain.

According to Table 4, the difference between the group with and without the pet is significant in terms of depression and the depression average is higher in those without the pet. The results of this study are in line with the results of Hart (1995), Kruger et al. (2004), Beetz et al. (2012), and Casciotti & Zuckerman (2019) in terms of the significant difference between a pet and non-pet owners. The reason for the higher average of depression among non-pet owners might be the lack of companion animals because the animal can be used as a social facilitator, a symbolic means of expressing emotionally focused subjects, the focus of attention, the object of attachment, source of social support, and a living tool for learning new skills and attitudes (Kruger et al., 2004). Thus pet owners make their pet an object for displacing all mental issues to improve their health. Thus, the average level of depression is lower among pet owners. However, we cannot be fully sure about the positive results of the pet's impact on health, as about half of depressed patients deny their depression and do not appear to be very depressed. These patients are often taken by their family members or employers to their physicians due to their social isolation and an overall decline in activity (Sadock & Sadock, 2015).

Another factor mentioned by Casciotti & Zuckerman (2019) is that pet owners have less time to go to the doctor or have less concern about their health, especially mild chronic diseases. Interacting with the animal can also be considered a form of exaltation, for example, a person who had the experience of being rejected in his early years and needed a compassionate caregiver, now becomes a compassionate and supportive caregiver for his pet, including his dog and cat and thus deals with such an emotional subject in a socially friendly way. The pet affects "social interactions" in

a way that leads to honesty, empathy, a positive mood, and a reduction in aggression (Beetz et al., 2012). In addition, pets as a source of physical contact and relaxation can reduce loneliness and depression while enhancing lifestyle enjoyment. The benefits of owning a pet include health promotion and illness prevention goals as a result of people's health. These goals include increasing physical activity, adjustment, mental health development, and prevention of mental disorders (McNicholas et al., 2005).

The results of Table 4 showed that the difference between the group with and without the pet was not significant in terms of obsessive-compulsive, interpersonal sensitivity, anxiety, and hostility, phobia, paranoid and psychotic thoughts. The findings are in line with the studies of Zardkhaneh et al. (2011), Mirghaed et al. (2013), and inconsistent with McNicholas et al. (2005), and Beetz et al. (2012) in the field of anxiety. In explaining the absence of a significant difference between the average of obsessive-compulsive disorder among those with and without pets, it can be said that during the study, it was observed that some people with pets had an obsessive-compulsive disorder related to animal death, which was the reasons for their frequent visits to veterinary clinics. Therefore, for individuals susceptible to this disorder, the pet, as an independent subject causes obsessive thoughts rather than reduced anxiety and symptoms of obsessive-compulsive disorder.

In terms of interpersonal sensitivity, it can be said that pet owners are forced to go out and walk, which is the way to meet new people and try to communicate and socialize. These people cannot enter social relationships due to feelings of inadequacy and inferiority, using the pet as a source of relief from the anxiety of inferiority so that they can reinforce their self-esteem to face the outside world. Therefore, pet ownership reduces interpersonal sensitivity among pet owners by creating such a facilitating role and therefore there is no significant difference between the two groups.

Regarding the lack of difference in the anxiety average, it can be said that during the research, people had several concerns even for minimal co-operation in completing the questionnaire. Therefore, people might buy a pet and meet their primary need to reduce anxiety, because according to the research by McNicholas et al. (2005), thereby the animal becomes a means for the displacement of an exciting topic, and by evacuating this anxiety they can be protected from high levels of anxiety. Therefore, they are not statistically different from those without pets.

As with aggression, it can also be said that, despite the limitations in dealing with the subject of aggression directly, the pet's influence on "social interactions" has been confirmed.

Therefore, it can be said that pets can affect human interaction and related factors such as honesty, empathy, aggression, and positive mood, and one can see a decrease in aggression in the presence of a pet compared to its absence (Beetz et al., 2012). The reason for this comment may be related to the mechanisms of displacement, refinement, and corrective emotional experience, since the subject has a great deal of emotional hostility which encourages each individual to relieve stress through various ways. Therefore, anyone with the ability to communicate with a companion animal can refine this strong excitement in a socially friendly form to prevent other diseases. Pet owners are forced to walk which forms self-esteem to face the outside world. Moreover, continuous walking and increased social interaction lead to reduced anxiety and associated disorders such as phobia and depression. In terms of paranoid thoughts, it can be said that distrust of others, as well as being irritable and angry may lead to isolation and withdrawal, anxiety, or distrust of the outside world.

In the field of psychosis, the researcher did not find a similar study, which can be because transient psychiatric disorder in American psychiatry has not been well studied. Furthermore, part of the problem is related to the frequent changes that have occurred over the past fifteen years on diagnostic criteria. In addition, paranoid psychotic patients are typically stressed out, skeptical, resistant, self-absorbed, and sometimes hostile or aggressive, and these features make it difficult to conduct direct studies on them. In addition, in this context one can address the corrective emotional experience in the form of separation from reality, which is, trying to solve a problem with a creature that has nothing to do with individual's conflict and is used only as an object to reduce the tension of emotional subjects and also to interfere with relationships. Lack of access to individuals' developmental histories and careful consideration of the factors leading to having a pet, especially dogs and cats, are limitations of the present study, which is suggested by other researchers in similar studies. In addition, considering the difference in the level of depression and somatization in individuals with and without pets, it is suggested that experts in the field of mental health consider the effects of pets on individuals' mental dimensions.

Conclusion

The results of the present study indicate a significant difference in cases of somatization and depression in people without a pet. The findings on somatization are consistent with Wells (2009), Rhoades et al. (2015) and inconsistent with Müllersdorf et al. (2010). Findings related to depression are also in line with the result of Hart (1995) and Kruger et al.

(2004), Beetz et al. (2012), and Casciotti & Zuckerman (2019) in terms of significant differences between people with and without pets. The significance of somatization can be referred to as the mechanism of reaction formation in which people use the animal as an object to express emotional topics such as anger or guilt so that they can reduce psychological stress and increase physical health. Additionally, interaction with the animal can lead to a kind of exaltation as well as a corrective emotional experience. In the present investigation, we found that in Isfahan, pets had a positive impact on increasing health and reducing the depression of their owners. On maedi-visna (MV), perhaps the reason for the higher average depression in people without a pet is due to the lack of a companion pet because it can serve as a symbolic means of expressing exciting topics to improve health and reduce the depression of its owner.

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Conflict of Interest

None.

Ethical approval

This study was approved by the administration committee of university.

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