

Perception of the benefits of pet ownership in patients with cardiovascular disease

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ABSTRACT

Introduction: Pets have played an important role in the life of human beings. In dissimilar studies a beneficial effect in the prevention and recovery of physical and mental health has been shown.

Objective: To describe the perception of the benefits of pet ownership in patients with cardiovascular disease.

Method: A descriptive cross-sectional exploratory study was conducted with 37 people that suffer from cardiovascular disease and brought their pets to the main clinic of affective pets in Havana between September and December 2012. A questionnaire was made in which the necessary aspects and socio-demographic data were assessed.

Results: All persons admitted that they felt very satisfied or satisfied to share their lives with pets and that this relationship lavished them with a great benefit on their psycho-emotional health. In relation to the benefit for the treatment and control of cardiovascular disease every person admitted they were more motivated to take better care of themselves and 41 % felt motivated to perform physical activity (walking).

Conclusions and recommendations: In the group studied there is a perception that pet ownership exerts beneficial effects on the physical and psycho-emotional health of the owner, and it was recommended to continue and expand research related to the topic, cover other sectors and increase the sample.

Key words: Pets, Cardiovascular diseases, Psycho-emotional health, Physical activity

Percepción de los beneficios de la tenencia de animales de compañía en pacientes con enfermedades cardiovasculares

RESUMEN

Introducción: Los animales de compañía han desempeñado un importante papel en la vida de los seres humanos. En disímiles estudios se ha demostrado un efecto beneficioso en la prevención y recuperación de la salud física y mental.

Objetivo: Describir la percepción de los beneficios de la tenencia de animales de compañía en pacientes con enfermedades cardiovasculares.

Método: Se realizó un estudio exploratorio descriptivo, transversal, con 37 personas que padecen enfermedades cardiovasculares y asistieron con sus animales de compañía a la clínica principal de animales afectivos de La Habana entre septiembre y diciembre de 2012. Se confeccionó un cuestionario en el que se evaluaron los aspectos y datos sociodemográficos necesarios.

Resultados: Todas las personas admitieron que se sentían muy satisfechas o satisfechas al compartir sus vidas con animales de compañía y que esta relación les Prodigaba un gran beneficio sobre la salud psicoemocional. Con relación al beneficio para el tratamiento y control de la enfermedad cardiovascular todas las personas admitieron que los motivaba a cuidarse más y el 41 % se sentía estimulado a realizar actividades físicas (caminatas).

Conclusiones y recomendaciones: En el grupo estudiado existe la percepción de que la tenencia de animales de compañía ejerce, sobre las personas a su cargo, efectos beneficiosos en la salud física y psicoemocional, y se recomendó que prosiguieran y ampliaran las investigaciones relacionadas con el tema, abarcar otros sectores e incrementar la muestra.

Palabras clave: Animales de compañía, Enfermedades cardiovasculares, Salud psicoemocional, Actividad física

INTRODUCTION

Pets have played an important role in the life of human beings throughout history. Dissimilar studies have shown they exert a beneficial effect in the prevention and recovery of physical and mental health of people with whom they live or are linked¹.

Among these benefits are the control and recovery of some cardiovascular diseases such as lowering blood pressure²⁻⁵, stress and cholesterol levels, better socialization of the individual and the attenuation of loneliness, among others²⁻⁶.

In our environment we have found no reference to studies on the benefits of pet ownership in people with cardiovascular diseases. On this basis it was decided to conduct a study in order to understand the perception that these people have regarding the benefits of pet ownership and its relation to personal satisfaction, psycho-emotional health, motivation to control their cardiovascular disease and performing physical activity.

METHOD

A descriptive, cross exploratory study in which quantitative and qualitative research methodology was used from September to December 2012 was performed.

The study population consisted of 37 people who attended with their pets the ophthalmology service of the main clinic of affective pets in Havana.

Inclusion criteria: Pet owners of both sexes, aged 18 or older, who suffered from cardiovascular

diseases.

Exclusion criteria: People who had physical or mental health conditions that could hinder the reading and understanding of the questionnaire were excluded.

Knowledge of cardiovascular disease diagnosis these people had was obtained by self-reference.

A self-administered questionnaire was developed –a 19 item questionnaire on pet ownership–, in which the following aspects were explored:

- Socio-demographic data: sex, age, educational level, occupation and whether or not they lived with other people.
- Personal satisfaction of pet ownership: assessment of the satisfaction a person feels to be in direct contact with an affective animal or pet, the welfare this interrelationship produces.
- Benefits on the psycho-emotional health: assessment of potential beneficial effects of pet ownership, related to psychological aspects, emotional state and quality of life of their owners.
- Benefits on the control of cardiovascular diseases: assessment of potential beneficial effects of pet ownership on the control of cardiovascular diseases of their owners.
- Motivations for physical activity: these were understood as the reasons that prompted the implementation of physical activity (walking) regarding

pet ownership. The frequency and time employed in walking were also taken into account.

Statistical analysis

The statistical analysis was performed using SPSS version 19. Absolute numbers and percentages of assessed variables were used.

Ethical issues

Participation of subjects in the study was voluntary and anonymous. Each person who met the inclusion criteria was asked to participate, upon previous oral information of the objectives, relevance and characteristics of the study. Following consent, they were given the questionnaire which they answered and gave back to one of the research team members.

RESULTS

Sociodemographic data

From a total of 37 participants, 29 (78%) were women (Table 1). It was noteworthy to find the elderly because those over 60 years (65 %) predominated followed by the group between 51 and 60 (24%). Higher level of education also predominated, 18 respondents (48 %) were university graduates, and with respect to the occupation housewives and retired people predominated (59%). When asked about cohabitation, it was found that 19% lived alone with their animals and the rest (81%), with other people.

Personal satisfaction of pet ownership

Most subjects (32%) lived with dogs (Table 2), followed in order of frequency by: cats (16 %) birds and ornamental fish (11%, respectively) and, less frequently, with rodents (8 %) and tortoise (3%). In people who lived with several animal species (19%), the common denominator was always dogs. Regarding the time of living together with pets, it was observed that the members of the study owned them, more often, for the past 10 or more years (41 %) and were very satisfied (70 %) or satisfied (30 %) to share their lives with them. None showed dissatisfaction.

In analyzing the effect of the relationship between owners and pets, opinions were very positive (Appendix). The responses most often indicated that animals lavished wellbeing (62%), contributed to take better care of their health (57 %) and provided company (54%). Very noteworthy responses indicated that

Table 1. Demographic data of respondents (n = 37).

Demographic data	Nº	%
Sex		
Female	29	78
Male	8	22
Age groups (years)		
41 - 50	4	11
51 - 60	9	24
Over 60	24	65
Educational Level		
Elementary	4	11
Secondary	5	14
Middle	10	27
Higher	18	48
Occupation		
Housewives and retirees	22	59
Workers	15	41
Living with other people		
Yes	30	81
No	7	19

relationship between animals and owners allowed communication between people with their animals (44 %), and a better mood in the owners (35 %) and in family environment (30 %).

Benefits on the psycho-emotional health

Owners rated the relationship with their pets of very beneficial (73 %) or beneficial (27%), (Table 3), and 97% of them would recommend other people to have this type of animals, and unanimously (100 %) felt that pets ownership improved their quality of life.

Benefits over the control of cardiovascular diseases

The most often mentioned disease was hypertension (54%), but only 4 people on 20 had hypertension alone, in the remaining 16 it was associated with other diseases such as diabetes mellitus, obesity and hypothyroidism (Table 4). In assessing the motivation of adherence to treatments influenced by living with pets, the most significant responses were that they took better care of themselves (100 %), were motivated to do exercises (41 %) and to take care of their nutrition (35%).

Table 2. Assessment of aspects regarding personal satisfaction related to pet ownership (n = 37).

Variables	Nº	%
Kind of pets		
Dog	12	32
Cat	6	16
Ornamental birds	4	11
Ornamental fish	4	11
Tortoise	1	3
Rodents	3	8
Several species	7	19
Time of pet ownership (years)		
< 1	2	5
1 - 3	2	5
4 - 6	10	27
7 - 9	8	22
≥ 10	15	41
Satisfaction with pet ownership		
Very satisfied	26	70
Satisfied	11	30
Effects of the relationship with pets		
Provides company	20	54
Provides wellbeing	23	62
Relieves stress	12	32
Contact with animal is satisfying	9	24
Improves mood	13	35
Allows communication with it	16	44
Facilitates family communication	11	30
Take better care of my health	21	57
Companionship for my loneliness	7	19

This study asked about possible changes in behavior that could be noted in pets if the owners had symptoms of cardiovascular disease, and 16 respondents (44%) answered positively. The changes they noticed (in dogs and cats) were: restlessness, nervousness, did not leave them and were more attentive to their owners, barked or meowed in a special way and ran toward others and then return to the owner's side. Of these 16 persons, 13 (81%) stated they took measures when they noticed that their animals changed their behavior. In addition, 33 (89%) consider their animals helped them to control their cardiovascular disease.

Table 3. Assessment of aspects regarding psycho-emotional health related to pet ownership (n= 37).

Variables	Nº	%
Benefits of owner-animal relationship		
Very beneficial	27	73
Beneficial	10	27
Advise having pets		
Yes	36	97
No	1	3
I don't know	-	-
Pet /quality of life		
Yes	37	100
No	-	-

Table 4. Assessment of aspects regarding control of cardiovascular disease related to pet ownership (n=37).

Disease control	Nº	%
Cardiovascular diseases		
Myocardial infarctions	7	19
Hypotension	2	5
Hypertension	20	54
Diabetes Mellitus	10	27
Obesity	5	13
Hypothyroidism	1	3
Others	8	22
Effects on adherence to treatment		
It takes time	-	-
Encourage better nutrition	13	35
Encourage exercise	15	41
I take better care of myself	37	100
Observe behavioral changes in your pet if you present cardiovascular disease symptoms		
Yes	16	44
No	2	5
You have not notice it	19	51
You take measures when you observe behavioral changes in the animal (n=16)		
Yes	13	81
No	3	19
Your pet helps in controlling cardiovascular disease		
Yes	33	89
No	-	-
I don't know	4	11

Table 5. Assessment on aspects regarding the motivation to perform physical activity related with pet ownership (n = 12).

Aspects related to walking	Nº	%
Walking frequency		
1 time/week	1	8
2 – 3 times/week	1	8
More than 4 time/week	2	16
Everyday	8	68
Walking time		
15 – 30 minutes	10	84
30 – 60 minutes	2	16
Walking effects		
Important stimulus for doing exercises	6	50
Helps reduce body weight	4	33
Encourages more walking	8	68
I enjoy the company of the animal	12	100
It helps me stay healthy	7	58
It helps me relax	3	25
If it were not for the pet I would not do it	9	75
It's a routine	4	33
Exercises for the animal	1	8

Motivations for performing physical activity

Regarding the motivation to perform physical activity, it was observed that only 12 people (32 %) walked with their dogs. 25 people did not practice walking because they had physical limitations (16 %), felt it was dangerous for them since they were very old (12%), or that it was risky for the animal (24%), and the remaining 48% could not answer because the animal they possessed could not perform this type of activity.

The 12 people, who said they walked with their pets (Table 5), did it more often on a daily basis (68%) and for 15-30 minutes (84%). The main motivations for physical activity were enjoying the company of the animal (100%), if not for the animal they would not do it (75%), and walking with their dogs helped them stay healthy (58%).

DISCUSSION

In the study on pets care by León *et al.*⁷, carried out in Santa Clara, Cuba, it was evident that the human

population studied was mostly composed of men (53.3%) mainly young adults (42.7 %). These data were not consistent with those found in our research where females predominated and the group of housewives and retirees (59%), which is in line with the age of respondents. This author indicates that the favorite animals were dogs and cats, which did coincided with our findings. However, it is important to point out that owning an animal does not always coincide with the one that is preferred, because sometimes people prefer a given species and do not have the conditions for it, so they adopt other animals.

Perdomo⁸, reported a 60% preference for dogs by people in Mayabeque and Havana, and Dominguez *et al.*⁹ found that there were 1.83 cats per household they visited in Matanzas city. We found that the group of people who had inclination towards ownership and preference for ornamental fish were mainly over 60 years, and said it was due to the relaxing effect that watching the fish provided them and that they required a less complicated care, compared with other species. According to Salama¹⁰, Gowing noted that those who owned fish improved their interest and level of responsibility, and Martínez¹¹ described that contemplation of the activities of birds and fish induced a state of relaxation or dream, which was expressed by respondents in our research.

In analyzing the benefits that a relationship with pets has on the psycho-emotional health no negative responses were obtained. The views expressed by the interviewees agree with those found by other authors¹²⁻¹⁴ who express that affective animals were a distraction and a vehicle for expression of affection primarily for the elderly. In a world in which relationships with others can be stressful and full of conflicts, animals provide humans with rest, by only seeking the company of their owners¹⁵.

As in this research, Martínez¹¹ stated that people with pets took better care of themselves to avoid getting sick because they feel necessary for their animals, as if they were missing, animals could be helpless, vulnerable and nobody could take care of them as they do.

Most respondents gave favorable views on the contribution of pets to control their cardiovascular disease (Appendix), results that suggest that possession of these animals can be very useful because, in addition, some species are able to notice changes in symptomatology manifestations of their owners and may provide

assistance (or warning), especially those trained for this purpose¹⁶.

The beneficial effects of physical activity among elderly and pets were corroborated by Motooka *et al.*¹⁷, as they found that those who walked with their dogs obtained a greater health benefit. This shows that pet ownership can stimulate physical activities and maintain good health even in advance ages. In our study, opinions regarding walking were issued primarily by men; for women taking care of themselves and a good nutrition were more relevant, because they felt that if they were missing, their animals could suffer. Moreover Gonzalez and Landero¹⁸ found that the group of people who considered the animal as a family member (34.8%) went for a walk together with them and shared activities outside the home, which showed health benefits by increasing motivation to perform physical activity.

CONCLUSIONS

The perception of respondents was that pet ownership brings substantial benefits to physical and mental health of patients with cardiovascular disease.

RECOMMENDATIONS

To continue and widen research related to this theme with the aim of designing and carrying out experimental studies to objectively assess the influence of pets on the health of human beings.

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APPENDIX. Major considerations expressed by respondents:

- **Relationship with pets:** They provide love, peace, tranquility, entertainment, are unconditional and faithful, help when individuals are sick by transmitting energy and are an incentive to keep on living.
- **Relationship with the environment:** Provides a better understanding of the animal kingdom wonders and allows interacting with the environment.
- **Relationship with education:** The need to foster educational plans regarding the care of animals and

to prevent maltreatment or abuse. The theme of the benefit of pet ownership was proposed to be dealt with in grandparents clubs, family clinics, community activities, as well as in studies on the elderly.

- **The questionnaire:** It was very well designed and the subject was very interesting. Respondents expressed interest in what other people thought about it and felt that more research on the benefits that animals give and receive when living with humans should be conducted.