

Effect of Walking with a Dog on quality of life of Older Adults

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ABSTRACT

Objective: The purpose of this study was to examine the quality of life of older adults walking with the dog.

Method: The participants were 62 dog owners (64% men, 36% women) and 86 non owners (54% men and 46% women) in Canakkale Turkey. Participants were randomly selected in their walking with dog area. The quality of life scale was applied to participant. Dog ownership, dog walking, education, height, weight and social economics status form and SF-36 quality of life scale were used.

Findings: Dog owners physical functioning, role-emotional, social functioning and mental health were higher than non owners ($p < .05$). No difference between dog walkers and non owners in the role-physical, vitality, general health and bodily pain ($p > .05$).

Result: Regular walking with dog may effective role on the physical functioning, emotional role, social functioning and mental health.

Keywords: Quality of life, physical activity, dog walking, older

INTRODUCTION

Features of their environment have been influential on activity levels of individuals (Jackson 2003). In recent years, dog ownership and physical activity related to the increase in health research (Cutt et al. 2008; Bauman et al 2001; Timperio et al 2008; Coleman et al. 2008; Cutt et al 2007; Thorpe et al. 2006; Pashana et al. 2005). Human and animal interactions to improve the mental health of individual and particularly to a method of treatment is known to be used to increase the quality of life (Cevizci 2009).

Previous research, those who have a dog more active, social environment better, feel better about themselves show (Cutt et al. 2008; Shintani et al 2010). However, according to some research, is not necessary to indicate that having a dog and according to their results that 60% of dog owners did not do walk with the dogs (Bauman et al. 2001). According to another study conducted on elderly individuals, being the owner of the animal indicates that animal health-related benefits of having not reported (Parslow et al. 2005). Dogs could play in increasing levels of physical activity among owners. Interventions designed to increase the proportion of dog owners who regularly walk with their dogs at recommended levels of physical activity are warranted. If successful, these programs have the potential to produce considerable health, community, and economic benefits (Cutt et al. 2008).

Features of the environment they are living (walking path, etc.), individuals can become active, or become the owner of the dog is important for increasing motivation.

There is no research that shows the quality of life in Canakkale/Turkey dog owners. The purpose of this study was to examine the quality of life of older people walking with the dog.

MATERIALS AND METHODS

Participants: The participants were 62 dog owners (64% men, 36% women) and 86 non owners (54% men, 46% women) in Canakkale Turkey. They were randomly selected in their walking with the dog area. The quality of life scale was applied to participants. Table 1 demographic characteristics of participants and characteristics of dogs are shown.

Measures: SF-36 was used for quality of life. SF-36, both positive and negative aspects of health to measure the total, consisting of 36 questions, a short, general, and is a comprehensive survey. The subscales are referred to as physical functioning (PF), role-physical (RP), emotional role (RE), body pain (BP), social functioning (SF), mental health (MH), vitality (VT), and general health (GH). We calculated and a total of eight scores were obtained. SF-36 has been

applied in Turkey, showed high validity and reliability (Basaran 2005; Pinar 1995).

Data Analysis: Normally distributed subscales such as vitality and mental were analyzed by *t*-test. The other subscales, which were not normally distributed such as physical function, role limitations due to physical, role limitations due to emotional, pain, general health and social function, were analyzed by Mann -Whitney U test.

RESULTS

Table 1 shows characteristics for participants presented by dog owners and non owners.

Variables	Dog walker n=62	Non- owners n=86
Female %	36 %	46%
Male %	64 %	54%
Education		
High school and before	32 %	44%
University	68 %	56%
Age /years	50.95±9.60	53.43±9.6 5
Height /cm	172.75±10.4 4	171.37±8. 2
Weight / kg	73.36±12.83	72.00±12. 11
Job		
Not working	39%	46%
Working	61%	54%
Home		
Apartment	50%	92%
Garden House	50%	8%
Cholesterol and lipid levels		
High	19%	50%
Normal	81%	50%

Diabetes		
Yes	2%	15%
No	98%	85%
The frequency of dog walking		
< 7 day/week	32%	
≥ 7 day/week	68%	
Time of dog walking		
≤ 7 hour/day	50%	
> 7 hour/day	50%	
The physical activity (dog walk except)		
% No	11%	
% moderate	48%	
% too much	41%	
Time to have a dog		
≤ 3 years	50%	
≥ 4 years	50%	
Years of dog		
≤ 2 years	48%	
≥ 3 years	52%	
Weight of dog		
≤ 10 kg	23%	
≥ 11 kg	77%	

Table 1. Demographic characteristics for dog walker and non-owners

Thirty six percent of dog owners were women and 64% of men, 54% of non owners were women and 46% of non-dog owners were male. There was no significant differences age ($p = .798$), height ($p = .483$) and weight ($p = .601$) between dog walkers and non owners ($p > .05$). Sixty eight percent of dog owners had graduated from university, 32% had graduated high schools and an earlier degree, 44% of non owners completed university, 56% had graduated from high school and earlier degree. Sixty one percent of have a dog was work, 39% did not work. Fifty four percent of non owners who working, 46% did not work.

Fifty percent of dog walkers in the apartment and 50% of in houses with gardens, 54% of non owners in the apartment and 46% were living in houses with gardens. Time to have a dog in the group had been distributed evenly. Forty eight percent of the dogs they have in two years and younger, 52% were aged 3 years and older. Twenty three percent of dogs were less and 10kg, 77% of dogs was 11 kg and more weight. More than 68% of dog owners seven days a week had been walking with the dog. Eleven percent did not do other activities outside the dog walk. Forty eight percent of dog owners had been doing moderate physical activity on the other. Forty one percent of dog owners had been made a high level of physical activity.

The majority of those who have dogs (81%) had normal cholesterol and lipid levels. There was an equal distribution of the non owner. Ninety eight percent of dog walkers and 85% of non owners did not have diabetes.

The physical functioning ($p=.000$), role-emotional ($p=.042$), social functioning ($p=.001$) and mental health ($p=.000$) scores of dog walkers were higher than non owners ($p<.05$).

Table 2. Scores of quality of life

		Dog walker n=62	Non- owners n=86	p -value
SF - 36	Physical functioning	92.40(8.92)	74.90(22.59)	.000*
	Role physical	94.32(14.13)	90.10(19.12)	.333*
	Role emotional	92.42(18.83)	85.41(20.52)	.042*
	Social functioning	71.98(18.61)	58.07(18.85)	.001*
	Mental health	73.27(13.52)	62.75(12.81)	.000#
	Vitality	67.39(13.87)	62.40(11.94)	.069#
	General health	72.23(18.07)	68.56(15.02)	.230*
	Body pain	81.61(17.68)	76.46(15.62)	.072*

T-test; *Mann-Whitney U test

The role-physical ($p=.333$), vitality ($p=.069$), general health ($p=.230$) and body pain ($p=.072$) scores of dog walkers were also higher than the non owner, but the difference was not significant difference ($p>.05$) (Table 2).

Table 3. Being a dog owner by the time the quality of life

		≤ 3 years n=30	≥ 4 years n=32	p -value
SF - 36	Physical functioning	93.33(7.47)	90.21(14.01)	.370
	Role physical	94.56(15.62)	94.56(12.96)	.905
	Role emotional	90.95(18.95)	98.55(18.55)	.

	4.68)	6.95)	032*
Social functioning	75.83(1 8.51)	68.47(18.41)	194
Mental health	75.61(1 1.30)	71.13(15.20)	277
Vitality	70.47(1 3.12)	64.56(14.21)	160
General health	76.00(1 6.77)	68.78(18.87)	189
Body pain	80.90(1 7.45)	82.26(18.25)	803

* $p < .05$

The role emotional scores of 4 years longer have a dog were higher than less than three years have a dog ($p < .05$).

DISCUSSION

The results of this study that walking associated with dog improves physical functioning, emotional role, social functioning and mental health. Walking with the dog is no effect on bodily pain, general health, role-physical and vitality. The duration of having a dog also does not create a big difference in quality of life.

Dog walking is an important and unique potential benefit of dog ownership in terms of helping people physically active for health benefits (Bauman 2001). Dog ownership stimulated physical activity and enhanced social contacts. Additionally, emotional changes as a consequence of the contact with and caring for the dog may have played a role in the regression of depression. Dog ownership allows the discontinuation of drugs and contributes considerably to cardiovascular and mental health (Tatschl et al. 2010).

In this study, role emotional and mental health was higher than non- owners. In addition, walking with a dog can provide owners with a greater feeling of safety, particularly when walking at night or in an unsafe neighborhood (Rossbach&Wilson, 1992; Raymore&Scott, 1998). Compared to non-owners and pet owners were more likely to participate in community events and to exchange favors between neighbors. A Japanese study linked regular exercise habits with better social networking. Social networking was measured by having close friends, community involvement and by taking care of pets (Yosiaki et al. 1999). Therefore, the experiences of dog ownership in childhood were related to the sociality of elderly men, such as the enhancement to companionship with others (Nagasawa&Ohta, 2010).

Our research found that individuals who walk with a dog social functioning were significantly higher than other groups. These results and reference data, which is one of the research hypotheses in terms of motivation for physical activity is important to walk with the dog is supporting.

Dogs could play in increasing levels of physical activity among owners. Interventions designed to increase the proportion of dog owners who regularly walk with their dogs at recommended levels of physical activity are warranted. If successful, these programs have the potential to produce considerable health, community, and economic benefits (Cutt et al. 2008).

50% of dog owners were living in the apartment. 50% were in garden house. The majority of non owners (92%) were living in the apartment. This result, environmental features is seen as a factor in increasing motivation to be dog owner and physically active can point to physical activity and regular walking with the dog owners that this issue was emphasized (Cutt 2008).

According to our results, individuals who walk with dog physical functioning were higher than non-dog owners. According to another study, to be physically active was not necessary to be a dog owner and 60 percent of dog owner were not walking with their dogs (Bauman et al. 2001). Dog around, but physical activity was one of the predisposing

factors of motivation research was showing (Coleman et al. 2008).

Schofield et al. (2005) found that walking with the dog may make changes on the physical activity habits were identified in their research. Dog walking, but with the frequency, duration and type of dog involved in the requirements of the research was concluded. Especially when the dogs walk with participants selected according to their responses, 68% of the participants were walking with the dog every day of the week. 50% of the participants at least 7 hours a week was walking with the dogs and the other 50% of participants were walking for more than 7 hours. This is to protect the general health of at least 60 minutes a day walking or physical activity recommendations can be considered as an appropriate activity. Participants of dog owner were walking with at least 7 hours per week. However, compared to individuals who do not have a dog in general health and physical pain did not differ between them. This result may be due to their physical activity habits. Because individuals are not dogs, they could be thought to have followed the general health promoting practices.

Our research is limited to quality of life. Another study, do not make regular physical activity and non-dog of individuals can be compared to walking with the dogs. But this is a fact that as a result of our research role-physical, role- emotional, social functioning and mental health of individuals walking the dog regularly was higher than non owners.

Is there a dog on the quality of life impact of having a period? According to the results of this study, role emotional of group 1 (3 years, and less dog owner) and 2.group (4 years, and more time dog owner) were different. But there were no significant differences between other quality of life subscales. Type, weight and age of dogs are taken into consideration other researches will bring clarity to this issue.

Our investigation involved 23% of dogs' was 10kg and less weight, 77% of the dogs' weight was 11kg and more. 48% of dogs 2 and younger, 52% were aged 3 and older and difference in the results of these changes is thought to be created. A more reliable way to determine the effects of being the owner of the dog to the dog owner who is considered a long-term follow-up should be done.

CONCLUSION

Regular walking with dog may effective role on the physical functioning, emotional role, social functioning and mental health of older adults.

REFERENCES

- Basaran S, Guzel R, Sarpel T. 2005. Yasam Kalitesi ve Saglik Sonuclarini Degerlendirme Olcutleri. Romatizma. 20 (1):55-62.
- Bauman AE, Russell SJ, Furber SE, Dobson AJ. 2001. The Epidemiology of Dog Walking: An Unmet Need for Human and Canine Health. MJA,175:632-634.
- Cevizci S, Erginoz E, Batlas Z. 2009. Ruh Sagliginin Iyilestirilmesinde Destek bir Tedavi Yaklasimi: Hayvan Destekli Tedavi. Nobel Med. 5(1):4-9.
- Coleman KJ, Rosenberg DE, Conway TL, Sallis JF, Saelens BE, Frank LD, Cain K. 2008. Physical Activity, Weight Status, and Neighborhood Characteristics of Dog Walkers. Preventive Med. 47: 309–312.
- Cutt H, Giles-Corti B, Knuiman M, Timperio A, Bull F. 2008. Understanding Dog Owners' Increased Levels of Physical Activity: Results from RESIDE. APHA. 98:66-69.
- Cutt H, Giles-Corti B, Knuimana M, Burke V. 2007. Dog Ownership, Health and Physical Activity: A Critical Review of the Literature. Health&Place. 13:261–272.
- Cutt HE, Knuiman MW and Giles-Corti B. 2008. Does Getting a Dog Increase Recreational Walking? International Journal of Behavioral Nutrition and Physical Activity.5:17.
- Jackson RJ. 2003. The Impact of the Built Environment on Health: An Emerging Field. American Journal of Public Health,93:1382.
- Nagasawa M. and Ohta M. 2010.The influence of dog ownership in childhood on the sociality of elderly Japanese men. Animal Science Journal 81, 377–383.

- Pachana NA, Ford JH, Andrew B, and Dobson AJ. 2005. Relations Between Companion Animals and Self-Reported Health in Older Women: Cause, Effect or Artifact. *International Journal of Behavioral Med.* 12(2):103-110.
- Parslow RA, Jorm AF, Christensen H, Rodgers B, Jacomb P. 2005. Pet Ownership and Health in Older Adults: Findings from a Survey of 2,551 Community-Based Australians Aged 60-64. *Gerontology.* 51(1):40-47.
- Pinar R. Diabetes Mellitus'lu Hastaların Yasam Kalitesini Etkileyen Faktorlerin İncelenmesi. Yayınlanmamış Doktora Tezi. 1995. İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü Hemşirelik Anabilim Dalı.
- Raymore L. and Scott D. 1998. The Characteristics and Activities of Older Adult Visitors to a Metropolitan Park District, *Journal of Park and Recreation Administration.* 16: 1–21.
- Rossbach KA and Wilson JP. 1992. Does a Dog's Presence Make a Person Appear more Likeable?: Two Studies. *Anthrozoos.*5: 40–51.
- Schofield G, Mummery W, Steele RM. 2005. Dog Ownership and Human Health-Related Physical Activity: An Epidemiological Study. *Health Promotion Journal of Australia.* 16(1):15-19.
- Shintani M, Senda M, Takayanagi T, Katayama Y, Furusawa K, Okutani T, Kataoka M and Ozaki T. 2010. The Effect of Service Dogs on The Improvement of Health-Related Quality of Life. *Acta Med. Okayama,* 64(2):109-113.
- Tatschl C, Finsterer J, Stöllberger C. 2006. Back to the Dogs. *American Journal of Preventive Medicine.* 30(4):362.
- Thorpe RJ, Simonsick EM, Brach JS, Ayonayon H, Satterfield S, Haris TB, Garcia M, Kritchevsky SB. 2006. Dog Ownership, Walking Behavior, and Maintained Mobility in Late Life. *The American Geriatrics Society.* 54:1419-1424.
- Timperio A, Salmon J, Chu B and Andrianopoulos N. 2008. Is dog ownership or dog walking associated with weight status in children and their parents? *Health Promotion Journal of Australia,*19:60-3.
- Yosiaki S, Takeuchi K, Ohta A, Tajima K, Suzuki S. 1999. Relationship Between Regular Exercise and Life Style, Social Network, Education and Subjective Symptoms in Japanese Middle Aged and Elderly Residents, *Japanese Journal of Public Health.* 46:624–637.