

# Relationship between Pets' Possession and Psychological, Physical and general wellbeing of Community dwelling older adults

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## **Abstract**

**Background:** Retirement, reduced income, decrease in social networks, changes in lifestyle, relocation, and decline in health and physical strength all constitute threats to the psychological, physical and general wellbeing of older adults. Pet possession is a way to maintain elders' independence, social involvement, and psychological, physical and mental wellbeing. **Objectives:** this study aims to identify the relationship between pets' possession and psychological physical and general wellbeing of community dwelling older adults. **Setting:** the study was carried out in three of private and two of governmental veterinarian clinics. **Subjects:** the study subjects included 60 older adults owning a pet at home; age 60 yrs and above, able to communicate effectively. **Tools:** three tools were used to collect the data: Socio- demographic and clinical data, Adult Wellbeing Assessment tool, Physical and psychological well-being scale (PWB). **Results:** A significant relation between pets' possession and psychological, physical and general wellbeing was observed. **Conclusion:** older adults who possesses pet at home show a high degree of psychological, physical and general wellbeing. **Recommendations:** encourage older adults particularly those living alone to possess pet at home as this will help to improve their psychological, physical and general wellbeing.

**Keywords:** pets' possession, wellbeing, community dwelling elders.

## **Introduction:**

Aging is associated with many challenges that may threaten older adults' psychological, physical and general wellbeing. These include retirement; reduced income, social isolation, change in lifestyle, and decline in physical strength. Moreover, to loss of colleagues, friends, and relatives which increase the risk of isolation and loneliness (Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015). Also because families are getting smaller and single households are increasing. Caring for older adult parents can be a challenge. However, older adults wellbeing is mostly correlated with having a role or identity, social relationships, and the potential for personal growth (Douma, Steverink, Hutter, & Meijering, 2017). Several strategies can help older adults to maintain autonomy, retain independence, social inclusion, psychological and physical health. Among these is the possession of any type of pet particularly dogs or cat (Gee, Mueller, & Curl, 2017). Pets stimulate older adults'

positive emotions such as pleasure and foster feelings of being protected and safe, both inside and outside the home (Enders-Slegers, 2000). Dogs are viewed as providers of safety, security, and protection, to older adults ( Knight & Edwards, 2008). Pets create opportunities for their owners to make new social relationships with people of different demographic and socioeconomic backgrounds (McNicholas & Collis, 2000; Wood, Giles-Corti, Bulsara, & Bosch, 2007). They act as social catalysts and help build and maintain social networks. Individuals with pets are more likely to know their neighbors, and about 40% of owners reported receiving increased social support from people while walking accompanied with a dog (Wood et al., 2015). Also, pets motivate people to engage in active and healthy lifestyle (Knight & Edwards, 2008) and enhance physical and cognitive functioning (Friedmann, Thomas, Son, Chapa, & McCune, 2013), Studies reported a positive relationships between pet ownership and increased physical activity and mobility maintenance in older adults (Curl, Bibbo, &

Johnson, 2017; Dall et al., 2017; González Ramírez & Landero Hernández, 2014; Thorpe et al., 2006). This may also have implications for enhancing cognitive functioning since physical activities maintain cardiovascular fitness (Carvalho, Rea, Parimon, & Cusack, 2014; Etnier, Nowell, 2006). In addition animals can directly provide social support (Allen, Blasovich, & Mendes, 2002; Allen, Shykoff, & Izzo, 2001; Enders-Slegers, 2000), reduce depression (Souter & Miller, 2007), The increased risk of isolation and loneliness in older adults has a profound impact on health and wellbeing, and is often associated with depression (McCall & Kintziger, 2013) and reduction in mobility and daily living activities (Perissinotto, Stijacic Cenzer, & Covinsky, 2012). Living with a pet provides company and reduces feelings of loneliness (Stanley, Conwell, Van Orden, 2013). A study conducted in the Netherlands, claimed that independently living older adults (70–80 years old) reported feelings of attachment and emotional closeness as the most salient elements of their relationships with pets (Enders-Slegers, 2000). Other important aspects of the relationship with pets included reassurance of worth, reliable alliance,

### ***Materials and Method:***

#### ***Materials***

***Design:*** Descriptive – correlation design was used in this study.

***Setting:*** This study was conducted in three Private and two governmental veterinarian clinics in Alexandria.

***Subjects:*** The study subjects consisted of a convenience sample of 60 older adults who were available at the time of data collection and fulfilling the following criteria aged 60 years and above, able to communicate effectively, and possessing a pet such as dog or cat or decorated birds, decorated fish and turtles at their homes.

#### ***Tools:***

Three tools were used for data collection

**Tool I: Elders` Socio-demographic and Clinical Data Structured Interview Schedule:**

feelings safe, emotional support and the opportunity for nurturance previously provided by human social networks. However, with aging the opportunity to care for others decrease. Pets are often seen part of the family (Ryan & Ziebland, 2015; Walsh, 2009), and since they are completely dependent on their owners, they meet the need for nurturance. Indeed, pet owners aged 70- to 80-year-old reported that caring for their animals makes them feel needed, responsible, and valued (Enders- Slegers, 2000). However, in Egypt few researches were applied to determine the effect of pets' possession on physical and psychological wellbeing of older adults. ***Aim of the study:*** The study aimed to determine the relationship between pets' possession and psychological, physical and general wellbeing of community dwelling older adults.

#### ***Research question:***

What is the relationship between pets' possession and psychological, physical and general wellbeing of community dwelling older adults?

This tool was developed by the researcher based on relevant literature to collect the following information from the study subjects **part I:** socio-demographic characteristics of the study subjects such as: age, sex, marital status, educational level, income, occupation before retirement. **Part II:** Clinical data such as: the presence of medical problems; onset and duration of the disease, treatment regimen, **Part III:** Type of pet and duration of its possession.

**Tool II: Psychological and Physical well-being scale: (PWB)**

PWB was developed by Lawton (1975). The scale is used to assess the elders' physical and psychological wellbeing. It consists of 14 questions 6 questions to assess psychological status; and another 8 questions to assess physical status. Participants' responses is evaluated on a seven point Likert scale :strongly disagree(1), disagree(2), disagree somewhat(3), neither agree nor disagree(4), agree somewhat( 5), agree(6),

strongly agree(7). The scale is divided in two sections:

- a- Psychological wellbeing: A score from 6-13 indicate low, 14-27 moderate and of 28-42 high psychological wellbeing.
- b- Physical wellbeing: A score from 6-17 indicates low, 18-35 moderate and of 36-56 high physical wellbeing.

This scale was translated into Arabic by the researcher.

### **Tool III: Adult Wellbeing Assessment**

Adult wellbeing assessment was developed by Wilcox (1983), This tool was used to assess general wellbeing of elders. It consists of 8 questions. For the *first three questions* older adult imagines a ladder with steps numbered from 0 at the bottom to 10 at the top.

A total score was calculated by summing up the scores of each question. A score ranging from 5-17 indicates low general wellbeing, 18-35 moderate general wellbeing and score range of 36-53 high general wellbeing. This scale was translated into Arabic by the researcher.

### ***Method:***

- 1- Approval of the Research Ethical Committee of Faculty of Nursing, Alexandria University to carry out the study. And official letter was issued from the Faculty of Nursing, Alexandria University to the Vice Minister of the Ministry of Agriculture to obtain his approval to carry out the study.
- 2- An official letter was issued with the approval of the Vice Minister of Social Solidarity to the director of each of the veterinarian clinics included in the study to obtain his approval to collect the necessary data .
- 3- Tool I: the socio- demographic and clinical data was developed by the researcher based on relevant literature., Tool II: Physical and psychological well-being scale (PWB) was translated into Arabic

language by the researcher and tested for reliability ( $r= 0.624$ ) and physical wellbeing scale tested for reliability ( $r= 0.714$ ), Tool III: Adult Wellbeing Assessment was translated into Arabic language by the researcher and tested for reliability ( $r= 0.708$ )

4- A pilot study was carried out on six elders selected from older adults owing pets and living in the neighborhood to assess the applicability, clarity and feasibility of the study tools, and necessary modifications were done accordingly. These elders we're not included in the study sample.

5- The researcher met each participant in the clinic while coming either for follow up or vaccinating their pets in order to obtain their approval to participate in the study through whats app. after explaining the purpose of the study.

6- Due to Covid-19 pandemic an electronic questionnaire was designed by the researcher and was sent to each participant through wahtsapp.' application after obtaining the approval. Participant responses were received and submitted to analysis. Data was collected from 1<sup>st</sup> March to 30 April 2020.

### **Ethical Considerations**

An informed consent was obtained from each study subject included in this study after appropriate explanation of the study purpose. Study subjects' privacy and anonymity was maintained and confidentiality of the collected data will be assured. The desire to withdraw from the study at any time was respected.

### ***Statistical analysis:***

The data from participants were entered and analyzed using statistical package for social science software (SPSS) for windows (version 23). Data were presented using descriptive statistic in the form of frequency, percentage for qualitative variables, means and standard deviation for quantitative variables. Pearson correlation was calculated to evaluate the relationship between

variables. P value of  $\leq 0.05$  was used to assess significant.

### Results

**Table (1)** illustrates the distribution of the study subjects according to their socio-demographic characteristics. The age of study subjects ranges from 60 to 75 years old with mean  $\pm$  65.91. Females constituted 65.5 % of study subjects; half of study subjects are living either alone (50%) and the rest half are living with their family. Regarding to the education the majority of study subjects (70%) had university education and higher. Also it was found that two third (66.6 %) of study subjects were suffering from physical diseases. **Table (2)** shows the type and duration of pet possession; half of the study subjects owe either dog (30.0%) or cats (20%) in their homes. More than half of study subjects (56.7%) owe pet for less than one year, 26.7% for to more than 5 years and the rest (16.7%) for one to less than 5 years. **Table (3)** shows the distribution of study subjects according to the levels of psychological, physical, and general wellbeing. The majority of studied older adults possessing pets and regardless of their type showed high psychological wellbeing (85.0%), physical wellbeing (95.0%) and general well being (68.3%). **Table (4)** illustrates the relationship between elders' socio- demographic characteristics and the relation between the levels of psychological wellbeing. No significant difference was observed between psychological wellbeing levels of older adults and their socio-demographic characteristics in relation to (age, sex, education, and suffering from physical diseases), but a statistically significant difference was found only with family condition  $P= 0.012$ . **Table (5)** Shows a statistically significant difference between older adults' socio- demographic characteristics and their physical wellbeing levels (age, family condition, education, and suffering from physical diseases)  $P= 0.03$ ,  $P= 0.04$ ,  $P= 0.005$ , and  $P= 0.012$  respectively, while no significant difference was observed

between males and females ( $P= 0.170$ ). **Table (6)** shows the relation between the levels of general wellbeing with elders' characteristics and levels of general wellbeing. A highly statistically significant difference was observed between age, family condition, and presence of physical diseases  $P= 0.00$  for each, While no significant difference was observed between sex and education of the study subjects and their general wellbeing levels with  $P= 0.10$  and  $P= 0.20$  respectively. **Table (7)** demonstrates the relationship between the duration of pets' possession and psychological, physical and general wellbeing of older adults. A positive relationship between pets' possession and level of psychological, physical and general wellbeing of older adult was observed ( $P= 0.00$ ,  $0.01$  and  $0.00$ ) respectively.

### Discussion:

With aging, older adults suffer from many physical, psychological and social well-being changes this is due to the increased prevalence of co-morbid diseases which may affect their social and psychological wellbeing (Ryan & Ziebland, 2015; Walsh, 2009). In Egypt few studies tackled this topic. Therefore, the aim of this study is to determine the relationship between pets' possession and psychological, physical general wellbeing of older adults. The present study revealed that the majority of study subjects showed high psychological, physical and general wellbeing (**table3**) this may be due to the positive impact of owing pets on the physical, psychological and general wellbeing of older adults, this finding is consistent with the result of Enders-Slegers, 2000 who found that the highest percent of elders who are possessing animals at their homes show high general wellbeing. Concerning to the relation between pets' possession and psychological wellbeing (**table 4**), the study revealed a significant relation between pets' possession and psychological wellbeing; this may be due

to that pet possession enhances cognitive functions and mental health. This supports the study done by (Stephenson, 2015) also reported that pets stimulate older adults' positive emotions such as pleasure and foster feelings of being protected and safe, both inside and outside the home. Another study revealed that dogs are viewed as providers of safety, security, and protection, to older adults ( Knight & Edwards, 2008). Regarding the relation between pets' possession and physical wellbeing, the current study revealed a significant relationship between pets' possession and physical wellbeing (**table5**) this may be due to the fact that pets increase physical activity of older adults in order to meet their needs from nutrition, hygiene and recreation. This result is consistent with the result of other studies who reported a positive relationship between pet ownership and increased physical activity and mobility maintenance in older adults (Curl, 2017; Dall et al., 2017; González 2014; Thorpe et al., 2006). Moreover, Carvalho2014;; revealed that pet possession enhance physical activities that maintain cardiovascular fitness, increase cerebral blood flow Testing the relation between pets possession and general wellbeing (**table6**) revealed positive relationship between general wellbeing and pets possession where elders who possess pets at homes had high general wellbeing. This may be due to the fact that animals inspire humans to engage in a lively, functioning and wholesome lifestyle and improve physical and subjective working. Also, Knight and Edwards, 2008 reported that pets motivate people to engage in an active and healthy lifestyle and enhance physical and cognitive functioning. The same was reported by Friedmann, Thomas, Son, Chapa, & McCune, 2013. The present study revealed that males had low level of wellbeing than females (**table6**). This result may be attributed to the fact that males cope less with aging and with multiple losses. This result is in agreement with Chung (2004) who documented that life transitions do not

seem to affect women the same way as it does to men and women cope with transition to aging than men do. A relation between age and level of wellbeing was observed where older adults who aged 70 years and over reported low level of wellbeing (**table6**). This finding may be related to the fact that with increasing of age more deterioration occur and wellbeing decreased due to suffering from co-morbidities, This finding is in line with the result of a study done in South Korea by Chung (2004) who revealed that there is a relation between aging and wellbeing where with advancing age usually wellbeing decreases. An important finding of this study is that a higher percent of studied elders who are living alone and possess pet at home equal level of wellbeing of those who are living with a family and also possess pet at home. This finding is explained by that owing a pet at home compensate and overcome felling of loneliness, isolation and detachment from the community. Expected finding of this study is those illiterate older adults or those who can only read and write reported low level of wellbeing than those who have basic or university education (**Table 6**). This finding may be due the educational level of individuals has emerged as correlate of adjustment to aging. This result is congruent with Chung (2004) who added that educational status is contributory factor to the degree of wellbeing. The study revealed a positive relation between the duration of pet possession and the level of psychological, physical and general wellbeing (**table 7**). This may be due to owing pet for long period helps in formation of positive emotions which enhance physical and psychological status of older adults. This result is congruent with a study done in USA by (Wellson Moller 2013) that revealed that increasing owing years of pets possession help in improving mental and physical status of older adults who possess pets in their homes

## Conclusion

It can be concluded that Pet ownership can support the retention of independence and quality of life for older adults by aiding in the preservation of physical and mental health, offering companionship, facilitating active social engagement, providing structure, daily routines, and opportunities for nurturance.

**Recommendations:**

Encourage older adults particularly those living alone to possess pet at home as this will help to improve their psychological, physical and general wellbeing

**Table (1) Distribution of the study subjects according to their socio-demographic characteristics**

Personal characteristics	N=60	Percent
<b>Age in years</b>		
60-	28	46.7
65-	23	38.3
70-75	9	15.0
Mean = 65.91		
<b>Sex</b>		
Female	39	65.5
Male	21	35.5
<b>Family condition</b>		
Living with family	30	50.0
Living alone	30	50.0
<b>Level of education</b>		
Illiterate, read and write		
Basic education	2	2.14
university and high	16	26.6
	42	70.0
<b>Suffering from physical diseases</b>		
Yes	40	66.6
No	20	33.4

**Table (2) Distribution of study subjects owing pets according to duration and type of pet possession:**

Item		N	Percent
<b>Duration of pets possession</b>	Less than 1 year	34	56.7
	1 year to less than 5 yrs	10	16.7
	5 to less than 10 yrs	16	26.7
<b>Type of possessed pet</b>	Dog	18	30
	Cat	12	20
	Decorated birds	14	23.3
	Decorated fish	10	16.7
	Turtles	6	10

**Table (3): Distribution of study subjects owing pets according to their levels of psychological, physical and general wellbeing:**

Item	N=60	%
<b>Psychological wellbeing</b>		
low psychological wellbeing ( 6 -13)	5	8.3
moderate psychological wellbeing ( 14-27)	4	6.7
high psychological wellbeing (28-42)	51	85.0
<b>Physical wellbeing</b>		
low physical wellbeing (6 -17)	2	3.3
moderate physical wellbeing (18-35)	1	1.7
high physical wellbeing ( 36-56)	57	95.0
<b>General wellbeing</b>		
low general wellbeing ( 5 -17)	7	11.7
moderate general wellbeing ( 18-35)	12	20.0
high general wellbeing ( 36-53)	41	68.3

**Table (4): Relationship between socio-demographic data of older adults owing pets and level of Psychological wellbeing:**

Variables		psychological wellbeing					
		low Psychological wellbeing		moderate Psychological wellbeing		high Psychological wellbeing	
		total	N	%	N	%	N
<b>Age in years</b>							
60-							
65-	28	1	3.7	2	7.14	25	89.2
70- 75	23	3	13.4	2	8.7	18	78.2
	9	1	11.1	0	0.00	8	88.0
<b>Sex</b>							
Male	21	6	28.5	4	19.0	11	52.3
Female	39	13	33.3	8	20.5	18	46.1
<b>Family condition</b>							
Living with family	30	2	6.7	4	13.3	24	80.0
Living alone	30	3	10.0	0	0.00	27	90.0
<b>Education</b>							
Illiterate, read& write	2	1	50.0	0	0.00	1	50.0
Basic education	16	2	12.5	2	12.5	12	75.0
University or higher	42	4	9.5	3	12.5	35	83.8
<b>Suffering from physical diseases</b>							
Yes	40	36	90.0	2	5.0	2	5.0
No	20	15	75.0	3	15.0	2	10.0

\*Significant at P≤ 0.05

\*\*Highly significant < 0.01

**Table (5): Relationship between socio-demographic data of older adults owing pets and level of Physical Wellbeing:**

Variables		Physical wellbeing						P
		low Psychological wellbeing		moderate Psychological wellbeing		high Psychological wellbeing		
		total	N	%	N	%	N	
<b>Age</b>								
60-	28	1	3.7	2	7.14	25	89.2	0.170
65-	23	3	13.4	2	8.7	18	78.2	
70- 75	9	1	11.1	0	0.00	8	88.0	
<b>Sex</b>								
Male	21	1	4.7	0	0.00	20	95.5	0.03*
Female	39	1	2.5	1	2.5	37	95.0	
<b>Family condition</b>								
Living with family	30	1	3.3	2	6.6	27	90.0	0.04*
Living alone	30	8	26.7	2	6.6	20	66.7	
<b>Education</b>								0.005*
Illiterate, read& write	2	0	0.00	0	0.00	2	100.0	
Basic education	16	2	12.5	6	37.5	8	50.0	
University or higher	42	1	2.3	2	4.7	39	92.8	
<b>Suffering from physical diseases</b>								
Yes	40	2	5.00	1	2.5	37	92.5	0.012*
No	20	0	0.00	0	0.0	20	100.0	

\*Significant at P≤ 0.05

\*\*Highly significant < 0.01

**Table (6) Relationship between socio-demographic and clinical data and the level of general wellbeing of study subjects**

Variables	General wellbeing						P
	low Psychological wellbeing		moderate Psychological wellbeing		high Psychological wellbeing		
	N	%	N	%	N	%	
<b>Age</b>							
60-	3	10.7	4	14.3	21	75.0	0.10
65-	2	8.7	8	34.8	13	56.5	
70- 75	2	22.3	0	0.00	7	77.7	
<b>Sex</b>							
Male	1	4.8	4	19.0	16	76.2	0.00**
Female	6	14.5	8	20.5	25	64.1	
<b>Family condition</b>							
Living with family	2	6.6	5	16.6	23	76.7	0.00**
Living alone	5	16.7	7	23.3	18	60.0	
<b>Education</b>							0.20
Illiterate, read& write	1	50.0	0	0.00	1	50.0	
Basic education	2	12.5	2	12.5	12	75.0	
University or higher	4	9.5	3	12.5	35	83.8	
<b>Suffering from physical diseases</b>							
Yes	28	70.0	8	20.0	4	10.0	0.00**
No	13	65.0	4	20.0	3	15.0	

**Table (7) relation between duration off pets' possession and level of psychological, physical and general wellbeing of older adults owing pets:**

Item	Duration of pets possession						P
	<1year		1-		5+		
	N	%	N	%	N	%	
<b>Psychological well being</b>							
low psychological wellbeing	31	60.7	8	15.6	12	23.5	0.00**
moderate psychological wellbeing	2	50.0	1	25.0	1	25.0	
high psychological wellbeing	1	20.0	1	20.0	3	60.0	
<b>Physical wellbeing</b>							
low physical wellbeing	32	56.1	10	17.5	15	26.3	0.01*
moderate physical wellbeing	0	0.00	0	0.00	1	100.0	
high physical wellbeing	2	100.0	0	0.00	0	0.00	
<b>General wellbeing</b>							
low general wellbeing	27	65.8	6	14.6	8	19.5	0.00**
moderate general wellbeing	4	33.3	3	25.0	5	41.7	
high general wellbeing	3	42.8	1	14.2	3	43	

\*Significant at P≤ 0.05

\*\*Highly significant < 0.01

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