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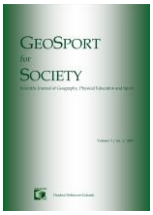

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The role of dogs in maintaining health and quality of life

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Abstract: Dogs, as companion animals, have many positive effects on the health and quality of life of dog owners, if the purpose of dog ownership is not as a watchdog but as a companion animal. Dogs can encourage the owner to engage in daily walks, play, sports and other interactions, which are beneficial for physical, mental and social well-being, as has been proven by various studies. The aim of our research was to investigate the role and impact of dogs on dog owners' physical activity, dog interactions and mental health. To achieve our goal, we created an online questionnaire that was completed by 220 dog owner respondents. Our research sought to understand how dog owners develop a relationship with their companion animal, the role of the dog in their active leisure time and the impact of the dog on the owner's mental health. We used a four-part questionnaire to obtain our answers. The first part covered demographic questions, the second part focused on the respondent's dog and the time spent with him/her doing sports. In the third part, the Monash Dog-Owner (MDORS) (Cavo et al., 2016) questionnaire was used and in the last part, the Mental Health Test was used. Our research has confirmed that exercising with dogs has positive effects on humans. Walking with a dog encourages exercise and also encourages the owner to spend time outdoors. Around 26% of the people in the study exercise together and 77.3% walk with their dog. The mental health of dog owners is medium and the level of happiness is above average. These results confirm that promoting dog ownership can help to achieve the objectives of public health strategies to encourage people to be more active, to exercise or to improve quality of life and health.

Keywords: dog owners, physical activity, mental health

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Introduction

The average age of people in the European Union, including in our country, is increasing. However, nowadays, in addition to the average life expectancy, quality of life, i.e. the number of years spent in good health, is receiving increasing attention, so this indicator is receiving more and more attention alongside the average life expectancy. In our country, the average life expectancy is 76.06 years, but of this, the average number of years that we can expect to live in good health is only 66 years (Bácsné et al., 2021). Therefore, a large number of studies on health maintenance and quality of life have been published (Crossman et al., 2015; Lengyel et al., 2021; Kinczel and Müller, 2023), the importance of which is undisputed. Dogs as companion animals have long been part of people's lives, but research on the health effects of dog ownership has gained momentum in recent decades (Cutt et al., 2007; Wells, 2009; Owen et al., 2010; Herzog, 2011; Westgarth et al., 2019; Albright et al., 2022; Suarez et al., 2022; Sellon et al., 2023). Animals are good companions according to Katcher (2000) because they can actively give love, do not contradict and are excellent projection surfaces for humans. The aim of our research was to investigate the role and impact of dogs on dog owners' physical activity, dog-dog interaction and mental health.

Literature review

As companion animals, dogs are well-integrated into the human community and have a positive impact on both people's physical and mental health. The dog-owner relationship also enhances physical and psychological factors, as dogs encourage their owners to lead more active lifestyles, thus reducing the effects of stress. They also have a calming effect and can even prevent social isolation (Miklósi, 2019). This suggests that dogs as companion animals improve people's physical and social well-being, and play a key role in relieving stress and overcoming loneliness. It is perhaps no coincidence that during the COVID epidemic in Hungary, the number of dog owners increased, when loneliness, fear of loneliness, stress and inactivity due to social isolation and distance, led many people to choose a companion animal, as animals supplement or, if not available, make up for the lack of companion support from humans (McNicholas and Collis, 2006). A representative study in Hungary in 2021 showed that the number of dogs in Hungary increased significantly (3 million) during the COVID-19 epidemic. While in 2018 only 36% of Hungarian households owned a dog, in 2021 50.4% of households became dog owners (Vetter et al., 2022), which means that one in two Hungarian households has a dog as a companion.

There are many studies that have found that petting dogs has beneficial effects on heart rate and blood pressure (Eddy, 1996; Shiloh et al., 2003), and the mere presence of a dog can also help reduce stress (Wells, 2009). Dog ownership therefore has many positive effects for the individual. I am sure that almost all dog owners have experienced how much more colourful and happy life is with a dog, as it has a positive impact on our well-being and mood. Dogs have a wide range of effects on people's health and quality of life (Barcelos et al., 2020). Dogs play a role in achieving both

physical and social well-being, with research showing that companion animals can have a significant positive impact in all three areas (Table 1).

Powell et al. (2019) examined changes in human mental well-being after acquiring a dog. Their study focused on four domains: loneliness, positive and negative emotions, and psychological distress. After just 3 months of dog ownership, dog owners experienced a reduction in feelings of loneliness and an improvement in mental health. Barcelos et al. (2020) confirmed that dog owners have improved self-esteem and mental well-being. However, the research also highlights that these studies need to focus on the activities and interactions that the dog owner has with the dog, as only then will there be a positive effect. This also highlights the different role and impact of dogs kept as companion animals or as guard dogs.

Dogs are known to reduce stress and anxiety. Several studies have shown that dogs can calm people during cognitive and performance stress. Because of their stress-relieving role, dogs can also play a role in maintaining mental health and improving quality of life (Odendaal and Menintjes, 2003; Lass-Hennemann et al., 2014; Crossman et al., 2015).

As a companion, dogs comfort us in the sad moments of our lives and at the same time share our joys. One of the best benefits of owning a dog is that it is almost impossible to feel lonely when your dog is by your side. Dogs recognise our moods and always know how to treat us and what to do. They always try to make us happier, cheer us up and make our lives better and more colourful. We receive unconditional love and acceptance from dogs, and a lifelong friendship. As a companion animal, dogs can also improve our emotional well-being and, by acting as a companion, protect us against loneliness (Andreassen et al., 2012; Betz et al., 2012).

The table below is a non-exhaustive collection of some of the research that has shown the various positive effects of dog ownership on health and quality of life (Table 1).

Table 1. Experience from research on the positive effects of dog ownership on physical, mental and social well-being

Researcher	Sample	Investigation	Result
Tower and Nokota (2006)	Americans living with and without dog (n= 2291)	Depression	Dog owners are less depressed than non-owners
Hecht et al., (2001)	298 American people who did or did not own a pet	Self-esteem	Pet owners had higher self-esteem than non-owners.
Schofield (2005)	1,237 Australians	Physical activity:Weekly minutes of dog walking for leisure	Dog owners walk 114,9 mins, Non-owners walk 108,2 mins
Wood et al., (2007)	Australians who did (n= 200) and did not (n= 139) own a pet	Loneliness	Pet owners were 2 times less likely than non-owners to report frequently feeling lonely.
Crossman et al., (2015)	A sample of students and medical residents (n= 67)	Depression, stress, mood, anxiety	Interacting with a dog reduced anxiety and negative mood, and increased positive mood

Materials and methods

In our research, we sought to understand how dog owners develop a relationship with their companion animal, the role of the dog in their active leisure time and the impact of the dog on the owner's mental health. We used a four-part questionnaire to obtain our answers. The first part covered demographic questions, the second part covered questions about the respondent's dog and the time spent with him/her doing sports. The third part was the Monash Dog-Owner Questionnaire and the last part was the Mental Health Test (Calvo et al., 2016).

The Monash Dog-Owner Questionnaire consists of 28 items and is designed to assess the relationship between man and dog. It is specifically designed to assess the impact and strength of the human-dog relationship from a human perspective, based on human perception. The questions can be grouped into three different factors. These questions can be used either simultaneously or independently of each other. The first factor consists of questions on dog-human interactions. The second factor aims to explore the emotional closeness of the perceived. The third factor contains questions that address the perceived costs of dog ownership. On a five-point Likert scale (1= not at all to 5= completely), respondents are asked to answer the questions, which are then summed up into a score for each. The scale is well suited for exploring the relationship between a dog and its owner and for examining patterns in the relationship. Specifically, it is not possible to specify what counts as average, high or low within a given factor (Dwyer et al., 2006). Over the years, the MDORS has proven to be a reliable and valid measurement tool.

The Mental Health Test attempts to cover the broad spectrum of mental health through a complex structure of five dimensions, which are well-being, savoring, creative-executive efficiency, self-regulation and resilience.The test consists of 18 items, which the respondents have to answer on a 6-point Likert scale (1= least, 6= most characteristic). An average is calculated from the scores obtained on each scale. The average of the scores on the five dimensions provides a reliable and valid measure of mental health. Regarding the structure of the questionnaire, the scales of well-being, savoring and creative-executive effectiveness are composed of only positive items, while the self-regulation scale is composed of only negative items. The Resilience scale is the only one with both positive and negative items (Vargha et al., 2020).

The target group of our questionnaire included people who were over 18 years of age and owned at least one dog. To reach our target group, we administered our questionnaire in groups where dog owners were available, i.e. dog groups. The final number of respondents was N=220.

The gender breakdown was as follows 64.5% women and 35.5% men. In terms of age, respondents were aged between 18 and 62, with an average age of 31.5 years. Most respondents were aged between 18 and 25.

In terms of place of residence, 14.1% of respondents live in the capital, 13.6% in the county, 49.1% in towns and 23.2% in villages. In terms of highest educational attainment, more than half of the respondents, 55%, have a college/university degree, 40.5% have a high school degree, 2.3% have a primary school degree, 1.8% have a vocational school degree and 0.5% have completed less than 8 grades. In terms of

their current main activity, 42.7% do manual work, 11.8% do manual work, 2.3% are homemakers, 4.1% are unemployed and 39.1% are students.

In terms of marital status, 35% of respondents are married or in a civil partnership, 32.7% are single, 29.1% are in a couple and 3.2% are divorced or widowed.

Results and discussions

In our survey we looked at how long the respondent had owned their current dog(s). On average, respondents have owned a dog for 5-6 years, which is half the average lifespan of a dog. In terms of frequency, 22.7% of respondents have owned a dog for more than 10 years, 33.7% for 5-10 years, 35.9% for 1-4 years and 7.7% for less than 1 year. More than half of respondents, 75%, own 1 dog, 18.2% own 2 dogs, 4.5% own 3 dogs and 2.3% own 4 or more dogs.

When looking at dog walking, we found that 77.3% of respondents walk their dog(s). In terms of frequency, 33.6% of respondents try to walk their dog every day, but those who do not walk their dog every day also show a high level of activity, with an average of 4-5 walks per week. Kalinszki (2016) highlights in his research that dogs help us to exercise and support us in maintaining our health, even with as little as 30-45 minutes of daily walks together. We also asked whether respondents usually exercise together with their dog. Only 26.8% of the sample surveyed exercise with their pet.

The next questions included how often the respondent plays with his/her dog(s) and how much time he/she can spend doing this in his/her daily life. Along with this, we also asked how important owners think it is to play with their dogs. In response, we found that just over half of respondents, 51.8%, take the time to play with their pet every day, 25.5% try to do so every couple of days, 16.4% play with their dog(s) weekly and 3.6% monthly. Only 2.7% of respondents said that they never play with their dogs. The responses suggest that it is very important for the majority of respondents to be able to find time to play/fun with their dogs.

We looked specifically at how often dog owners give their dogs a reward treat and how often they buy them a gift. 40.5% of respondents give their dog a treat every day, 27.3% every few days, 18.2% every week and the remaining 14.1% rarely, monthly or never. 49.5% of dog owners buy a treat for their pet a couple of times a year, while 27.7% buy a treat every month, 6.8% every two weeks, 4.5% every week and the remaining 11.4% never buy a treat for their pet.

In the next part of our questionnaire, we asked respondents to rate statements on a 5-point Likert scale. The first statement, which was: My dog helps me get through difficult times, was rated as a 5 by over half of the respondents (69.5%), meaning that they strongly agreed with this statement. Also, a high number of respondents strongly agreed with the next four statements asked, that they would like their dogs to always be close to them (60.5%); that their dogs are always attentive to them (81.8%); that their dogs are always there to comfort them (70.9%); and that they provide constant companionship (79.0%). For the statement that my dog gives me a reason to get up in the morning, 39.5% of respondents marked five, 16.8% marked four, 23.2% marked three, 13.2% marked two and 7.3% marked one. With the statement: If everyone left

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me, my dog would still stay with me, 74.5% of respondents strongly agreed and 15.9% somewhat agreed.

The last section of our questionnaire included questions and statements about mental health. In order to look at the level of mental health of the respondents, averages have to be calculated, taking into account that for some questions the value point of the answer is interpreted in reverse. Averages were calculated from the scores obtained on each scale. Separately, we also looked at the average of the scales for the five dimensions and also the average of the responses to mental health (MET average). The results of the averages can be interpreted on a 5 point scale with given values. The interpretation of the mental health test scales was looked at along the lines of the interpretation created by Vargha, Zábó, Török and Oláh. The scores broken down into scales containing the interpretation are illustrated in Table 2.

Table 2. Zones for interpreting the Mental Health Test scales by scale (Vargha et al., 2020)

Scale	Very low	Low	Average	High	Very high
Well-being	1-2,1	2,2-3,5	3,6-5,2	5,3-5,8	5,9-6
Savoring	1-2,5	2,6-3,7	3,8-5,5	5,6-6	
Creative-executive efficiency	1-2,8	2,9-3,9	4-5,3	5,4-5,8	5,9-6
Self-regulation	1-1,4	1,5-2,5	2,6-4,9	5-5,8	5,9-6
Reciprocity	1-1,5	1,6-2,7	2,8-4,9	5-5,5	5,6-6
MET average	1-2,68	2,69-3,55	3,56-4,91	4,92-5,46	5,461-6

The averages of the respondents across dimensions were as follows. The first dimension is well-being, which measures well-being experienced in the social, spiritual, emotional and psychological domains. The mean of the well-being dimension of the respondents was 4.51, according to the interpretation table, so it can be said that the respondents to our questionnaire have an average well-being. The second dimension is savoring, which is the ability to create, experience, maintain and enhance positive experiences. The average of the respondents' savoring scores is 4.48, i.e. average. The third dimension is creative-executive effectiveness, which is about the ability of the respondent to adapt to a difficult situation and still achieve his/her goals. The mean score for this dimension is 4.36, i.e. the completers' creative-executive efficiency falls into the average category. The fourth dimension is self-regulation, which is control over our mind and attention. The mean score of completers was 3.51 and this also falls into the average box. The last dimension is resilience, which is the ability to withstand mental stress. The average score of the respondents is 3.56, so respondents have an average resilience. Overall, the mean score for mental health is 4.09. This indicates that the completers have average mental health.

The last question of the Mental Health Questionnaire should be highlighted. We asked how happy the respondent considers themselves to be overall. They were asked to answer this on a scale of 1 to 6, with 1 being not at all happy and 6 being completely happy. 13.2% of respondents gave a 6, 46.8% a 5, 29.5% a 4, 6.4% a 3, 3.6% a 2 and 0.5% a 1. On average, respondents rated themselves as happy at 4.58, which is above average.

Conclusions

Our research provides evidence that dogs do have a role to play in maintaining health and quality of life.

The results of the study show that playing sport with dogs has a positive effect on humans. Walking with a dog encourages the owner to exercise and to spend time outdoors. Around 26% of the people in the study exercise together and 77.3% walk with their dog.

Our results, like previous research, have demonstrated the important role dogs play in our lives. They have an impact on both our physical and mental health. Our research has shown that owners care a great deal about their pets, which is reciprocated by dogs. For people, their dogs are a source of great support, being there for their owners, helping them through a difficult situation, and they are also a constant companion and a source of unconditional love.

The mental health of the respondents is good, according to our test results. We think a big part of this is their dogs and the time they spend with them, and the care and attention they give them. Dogs don't let you feel lonely, which is a big contributor to mental health.

In summary, our research, like much of the national and international literature confirms that dog ownership has a number of positive effects.

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