

## Proper care of dogs from their owner's perspective

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**Abstract:** *Proper care of dogs from their owner's perspective.* The aim of the study is to examine the level of awareness of dog owners regarding the needs of dogs and ways of providing them with proper care. In order to provide dogs with proper care one needs to consider both the specific requirements of the species, as well as the expectations of the owners. The owner (in Poland) awareness survey was carried out by means of an Internet diagnostic survey. The survey was performed on a group of 424 people currently owning dogs. Surveyed were asked 12 questions. The results of the survey were processed statistically (SPSS 23.0 statistical package). In order to divide the respondents into groups of various awareness of dog welfare, a clustering analysis was performed using *k*-means clustering. In order to estimate the differences in several independent variable samples the Kruskal–Wallis test was used. The respondents attributed the largest weight to medical costs (0.847) and physical activity associated with owning a dog (0.844). They regarded the costs of keep least important (0.548). The differences were confirmed statistically. Already during the phase of making the decision about owning a dog the more aware persons search for information about the animal. Such people declare greater weight of all elements of dog care associated with welfare. This relation is evident in case of grooming and providing the dog with walks. The obtained results of the survey show that the majority of the respondents are people knowing the needs of their dogs.

*Key words:* dog, welfare, care, health

## INTRODUCTION

There is still no certainty as to when the dog was domesticated. The studies of Skoglund et al. (2015) showed that the ancestors of today's dogs separated from wolves probably between 27 and 40 thousand years ago. Initially the relationship between dog and man based mainly on work and the fulfilling of specific tasks by the dog. The basis of this cooperation was the selection of dogs for the ability to beneficially cooperate with man (McGreevy and Nicholas 1999). Fundamental civilization changes of the 20th century caused a change of the dog's role in the life of man. Today people expect dogs to provide them with company and friendship (Boruta et al. 2014).

In order to provide dogs with proper care one needs to consider both the specific requirements of the species, as well as the expectations of the owners. Broom (1997), as well as Lue et al. (2008), proved that the bond between man and dog has an influence on providing welfare to the animal. They proved that caretakers who are more strongly connected with their dog are willing to

provide a higher level of veterinary care, but also follow the recommendations of the veterinarian more often, regardless of the costs.

Depending on the norms in a given society there are various public opinion attitudes towards dogs. The need to provide them with welfare is also understood in various ways. Researchers of this subject found an influence of cultural and social differences (Serpell 2004) and distinct individual differences in attitudes toward pet owners depending on age, sex (McKay et al. 2009), place of residence (Knobel et al. 2008, Acosta-Jamett et al. 2010) and a previous contact with a dog (Hsu et al. 2003). The strength of the bond between man and dog, as well as a social perception of dogs may have an influence on the dog population in a given society. In Poland there are about 7.5 million dogs (FEDIAF 2012), which means we rank second in this respect in Europe (behind Great Britain).

The aim of this study is to determine the level of awareness of dog owners in Poland on the subject of dog needs and ways of providing them with proper care.

## MATERIAL AND METHODS

The study of owner awareness regarding the proper care of dogs was carried out by means of an Internet diagnostic survey. The survey was carried out on a group of people currently owning a dog (dogs), who are active on internet forums dedicated to cynology.

The survey was prepared with the use of the "Google Forms" application and distributed on forums and social portals dealing with dog related subjects. The survey collected information characterizing the structure of the respondents, as well as examined the awareness of dog owners regarding dog care (12 questions in the survey). The awareness of the respondents regarding proper care of the dog was assessed by referring to the concept of welfare as a state of physical and mental health achieved in conditions of complete harmony of an organism in its environment (Hughes 1988). Dog owners were asked about how significant to them (to the owners) were vaccinations and dewormings, medical costs, physical activity, the costs of keeping a dog, the place of the dog's residence, the dog's

TABLE 1. The importance of traits for dog owners (% of respondents)

Dog welfare trait	The importance for dog owners				
	very important	important	average important	small important	unimportant
Vaccinations, deworming	56.57	25.12	10.09	4.93	3.29
Medical costs	58.69	27.23	10.09	2.35	1.64
Physical activity	53.05	35.45	8.92	1.41	1.17
Cost of dog keep	14.32	24.88	35.68	15.50	9.62
Place of dog's residence	34.04	37.09	19.48	5.63	3.76
Contact with other animals at home	49.53	29.58	11.03	3.52	6.34
Length of walks	39.20	41.78	12.44	4.23	2.35
Grooming	25.35	35.69	25.35	9.39	4.23

contact with other animals at home, the length of walks and grooming (Table 1).

The results of the survey were processed statistically (SPSS 23.0 statistical package) and presented in the form of tables and figures. In order to divide the respondents into groups of various awareness regarding dog welfare, an analysis was done using *k*-means clustering. In order to estimate the differences in several samples of independent variables the Kruskal–Wallis test was used.

## RESULTS AND DISCUSSION

The research consisted of 424 persons (91.5% of them were female and 8.5% were male). In Poland greater activity on internet forums dedicated to cynology is usually exhibited by women. Exactly 64.4% of the respondents had tertiary education, 32.5% secondary or vocational and 2.8% a primary education. In 32.3% of cases the respondents had more than one dog in their life and in 43.4% of cases it was a pedigree dog.

Weights from 1 to 0 were attributed to variables describing the welfare of the dogs (Table 2). All traits achieved the lowest and highest ranks and their

averages were above 0.50. The respondents attributed the highest importance to medical costs (0.847) and physical activity associated with owning a dog (0.844). They considered the costs of keep to be the least significant (0.548).

In order to distinguish groups of respondents with specific preferences regarding dog welfare, an analysis of clusterings was made using the *k*-means method (Fig. 1).

The hierarchies of variables describing dog welfare, pointed out by the respondents, allowed to identify five clusterings (Fig. 1). Detailed data is presented in Table 3. Respondents from clustering 1 ( $N = 119$ ) characterized themselves with the highest rank of the majority of the studied traits. They are the most aware of the responsibility associated with providing welfare to a dog. They stood out among the other groups with a high assessment of the weight of the dog's keep costs (0.83, the other clusterings below 0.53). Similarly to the respondents from this clustering, also the respondents from the clusterings 3 and 4 attributed a very high weight to such traits as vaccination and deworming, medical costs and physical activity. Respondents from clustering 2 ( $N = 86$ ) assessed the analyzed

TABLE 2. Average weights of dog welfare traits

Weight	AVG	SE
Vaccinations, deworming	0.816	0.013
Medical costs	0.847	0.011
Physical activity	0.844	0.010
Cost of dog keep	0.548	0.014
Place of dog's residence	0.731	0.013
Contact with other animals at home	0.780	0.014
Length of walks	0.777	0.011
Grooming	0.670	0.013

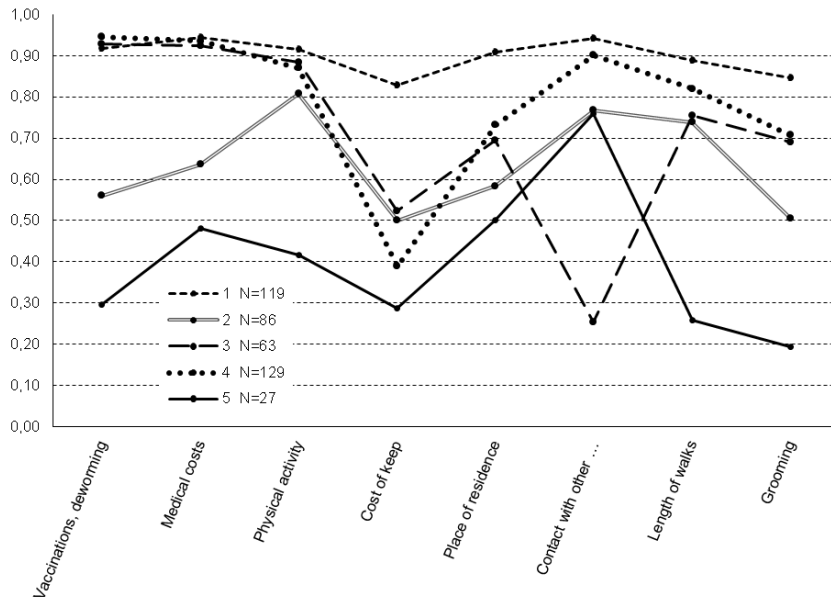


FIGURE 1. Clusters of variables characterizing dog welfare

TABLE 3. Cluster centres of welfare traits in five clusterings

Dog welfare trait	Clustering				
	1	2	3	4	5
Vaccinations, deworming	0.92	0.56	0.93	0.95	0.30
Medical costs	0.94	0.64	0.92	0.94	0.48
Physical activity	0.92	0.81	0.88	0.87	0.42
Cost of dog keep	0.83	0.50	0.52	0.39	0.29
Place of dog's residence	0.91	0.58	0.69	0.73	0.50
Contact with other animals at home	0.94	0.77	0.25	0.90	0.76
Length of walks	0.89	0.74	0.75	0.82	0.26
Grooming	0.85	0.51	0.69	0.71	0.19

traits at an average level. Clustering 3 ( $N = 63$ ) differed from the others in the assessment of the contact with other pets at home, which was regarded as least significant (0.25). Respondents from clustering 4 ( $N = 129$ ) assessed the majority of the traits, apart from the keep costs (0.44 difference) similarly to those from clustering 1. In clustering 5

( $N = 27$ ) were people who attributed the least weight to all studied traits of welfare, apart from contact with other animals already living at home (0.76). The respondents from that clustering regarded the following traits of little significance: grooming of the dogs (0.19), length of walks (0.26), costs of keep (0.29) and preventive procedures (0.30).

An analysis of traits describing dog welfare depending on the information about the owned dog (Fig. 2) showed that beside the costs of keep all traits were assessed high and regarded as very significant or significant and the differences were confirmed statistically.

Already during the phase of making the decision about owning a dog the more aware persons search for information

about the animal. Such people declare a greater weight of all elements of dog care associated with welfare. This relation is especially visible in the case of grooming (Fig. 3) and providing the dog with walks. Exactly 63% of the respondents regularly care about the hygiene of the dog's teeth by giving him cleaning chew toys and care about the dog's coat (depending on the needs). As many as

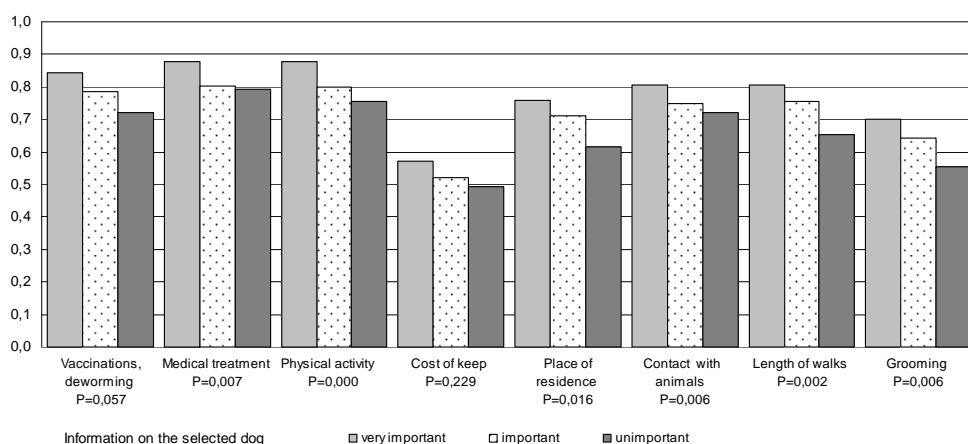


FIGURE 2. Averages of traits characterizing welfare depending on the information about the owned dog

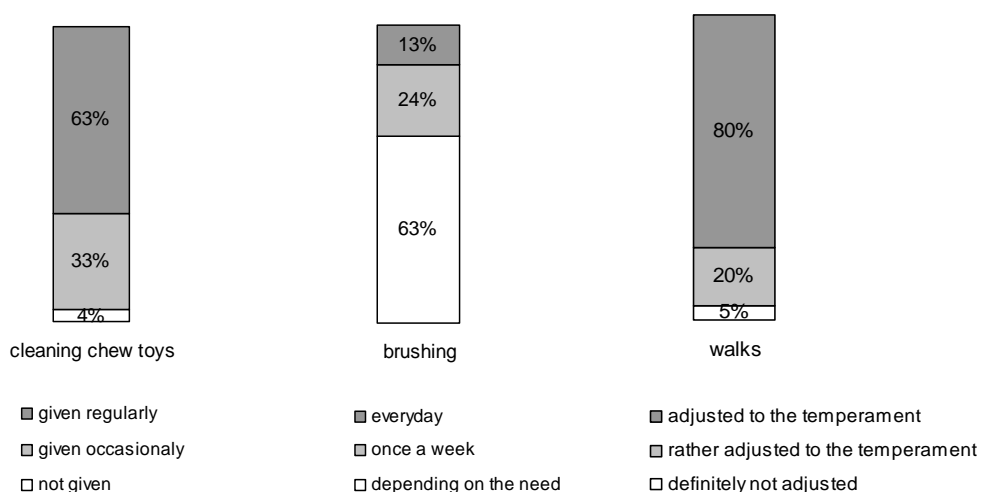


FIGURE 3. Declarations of adhering to dog welfare in respect to selected grooming treatments (teeth and coat care) and walks

80% declare that the dog's walks are adjusted to its temperament. Such a result of the survey analysis places the group of respondents in a group of people that adhere to welfare (Hughes 1988) and principle of the "five freedoms" (Farm Animal Welfare Council 2009). What may cause concern is the fact of undervaluing the role of costs associated with keeping a dog, which may be generated both as part of preventive procedures (vaccinations and deworming), medical treatment, grooming, physical activity and are often associated with the place of the dog's residence.

## CONCLUSIONS

An analysis of the level of dog owner awareness regarding the needs of dogs and ways of providing them with welfare showed that:

1. In Poland greater activity on Internet forums dedicated to cynology is exhibited by women (91.5% respondents).
2. Generally respondents attributed the largest weight to medical costs and physical activity associated with owning a dog and regarded the costs of its keep as least significant.
3. The respondents can be divided into five groups (clustering analysis) differing in the understanding of dog needs: first – people most aware of the responsibility associated with providing welfare (the highest rank of the majority of researched traits, a high assessment of the weight of the costs of keeping a dog), second – those assessing the analyzed traits at an average level, third – differed from the

- others by a low assessment of contact with other pets at home, forth – the respondents assessed the majority of the traits, apart from keep costs, similarly to the respondents from clustering 1, fifth – people attributing the lowest weight to all researched welfare traits, apart from contact with other animals already living at home.
4. Already during the phase of making the decision about owning a dog the more aware persons search for information about the animal. Such people declare a greater weight of all elements of dog care associated with its needs and welfare.

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**Streszczenie:** *Właściwa opieka nad psem z perspektywy właścicieli.* Celem pracy jest zbadanie poziomu świadomości właścicieli psów na temat potrzeb psów i sposobu zapewnienia im właściwej

opieki. Aby zapewnić psom odpowiednią opiekę, należy wziąć pod uwagę zarówno specyficzne wymogi gatunku, jak i oczekiwania właścicieli. Badanie świadomości właścicieli przeprowadzono za pomocą internetowego sondażu diagnostycznego. Ankiety przeprowadzono w Polsce, na grupie 424 osób, aktualnie posiadających psy. Ankietowanym zadano 12 pytań. Wyniki ankiety opracowano statystycznie (pakiet statystyczny SPSS 23.0). W celu podzielenia respondentów na grupy o różnej świadomości w zakresie dobrostanu psów zastosowano analizę skupień metodą *k*-średnich. Do oszacowania różnic w kilku próbach zmiennych niezależnych wykorzystano test Kruskala–Wallisa. Respondenci największą wagę przywiązywali do kosztów leczenia (0,847) i aktywności fizycznej związanej z posiadaniem psa (0,844). Za najmniej istotne uznali koszty utrzymania (0,548). Różnice zostały potwierdzone statystycznie. Już na etapie podejmowania decyzji o posiadaniu psa osoby bardziej świadome poszukują pełnych informacji o zwierzęciu. Takie osoby deklarują większą wagę wszystkich elementów opieki nad psem związanych z dobrostanem. Zależność ta jest wyraźna w przypadku pielęgnacji i zapewnienia psu spacerów. Uzyskane wyniki badania ankietowego wskazują, że większość respondentów to osoby znające potrzeby psów.

*Słowa kluczowe:* pies, dobrostan, opieka, zdrowie

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