

The effect of socio-demographic characteristics of the dog owners on dog breed choices

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ABSTRACT

The aim of this study was to identify the socio-demographic characteristics of the professional, semi-professional and non-professional dog owners who participate/interested are in any of association, social platform, pet fair and pet show related with dogs. Furthermore, it was purposed to determine the choices of owners from different demographic characteristics on size, dominance statue and function of the dog. This study was conducted by an online survey. The link of this survey was sent to members and followers of Dog Breed Federation through their corporate social networking site. 619 dog owners from various socio-demographic profile of the society attended voluntarily to this survey and 581 fully answered surveys were accepted as the material of the study. As a result, it was determined that more than half of the dog owners made their breed choices on breeds over 35 kg live weight, large size and with dominance traits. Owners' tendencies for the dog breeds was affected by gender, age, education statues and environment where the dog is kept. However, marital status, income level, house sharing, child number in the family and owning another pet(s) at home didn't have any significant affect on the breed choices.

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Introduction

In accordance with the studies conducted by archaeology and phylogenetic disciplines, dogs are the earliest domesticated species (Driscoll et al., 2009). Zoologically, it was reported that origin of dogs is based to the grey wolves which located in northern hemisphere and spread from middle Asia to the world. However, recently conducted genome sequencing studies imply that none of the wolf lineages from the hypothesized domestication regions (East Asia, the Middle East and Europe) is supported as the source lineage for dogs (Freedman et al., 2014). Human-dog relation firstly based on as being the nutritional source for meeting nutrition needs of human. However in subsequent years dogs were started to be used as a helper for hunting and domestication of other species due to their intelligence and tendency to learning

(Yalçın, 1981).

Archaeological studies conducted in Middle Asia, North Africa and South America prove that domestication process of dogs started 35000 years ago. Excavation findings in Middle East, Egypt and Central Europe shows that the formation of various size dogs and their diversity is based back to 10000 BC. These observations show that phenotypic variability of dogs was caused by selection and crossbreeding methods in different regions and different genetic pools (Taylor, 1993).

With the modernization process, it was observed that city life has set its own standards in developed and developing countries. Day by day, crowded traditional family type has been losing its importance and in the society individualization and tendency to live alone has

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gained importance. One of the effects of modernization process is that individuals started to vary their social communication platform and share their home with various species primarily with dogs and cats. Nowadays dogs are considered as a part of the family. It was reported that owning a dog has positive effects on health, social life, and psychology. Furthermore, people living with dog get ill less due to their attractive life connected to the dog, less stress effected, have richer social communication network and has strong empathetic ability and feeling of mercy (Anonymous, 2017, Marinelli et al., 2007).

344 dog breed genotype which have different phenotype and behaviour traits were registered as breed by FCI (The Fédération Cynologique Internationale). Dog breeds are classified as small, medium and large size in terms of the body size and mature live weight. Furthermore, natural behaviour of dogs and their usage area vary. Considering the genetic behaviour tendency, dogs are kept for hunting, herding, search and rescue, various sport activities or working in a service to a person with disabilities. In terms of the natural behaviour profile some of the dogs can be upbeat and energetic while some of the breeds are calm. Dogs' natural adaptation ability to different climate and geographic conditions may gain importance in terms of their spread and breeders choices (FCI, UKC, AKC, BKC, KIF).

Factors affecting people's choices while deciding the dog breed and which traits are considered related with the dog are controversial and unknown topics. While some of the owners consider dog's physical appearance, the others may consider dog's function. It is known that morphological traits of the dog breed affect owners' decision while they choose the breed (Weiss et al., 2012; Nemcova et al., 2003).

Media that featuring dogs would also affect the owners' decision. Especially visual media such as movies, documentaries and reality shows are associated to an increase in popularity of featured dog breed (Ghirlanda et al., 2014). On the other hand, various negative news, videos or photographs that related with the dog breed may decrease the breed popularity (O'Brien et al., 2015). Gunter et al. (2016) determined a 12% of increase of Pitbull adoption connected with removing the pitbull label from kennels in the shelters.

The aim of this study was to identify the socio-demographic characteristics of the professional, semi-professional and non-professional dog owners who participate/are interested in any of association, social platform, pet fair and pet show related with dogs and to determine the owners' choices from different demographic characteristics on size of the dog, dominance statue and area of utilization.

Materials and Methods

This study was conducted by an online survey. The link of the questionnaire was shared with the members of Dog Breed Federation through their corporate social networking site. 619 dog owners that located in Turkey and from various social and economic profiles attended to this study. However, 581 trusted answers were accepted for the further analysis.

Respondents were grouped considering their gender (65.06% were male, 34.94% were female), age (3.79% were below 20, 32.53% were between 21-30, 35.80% were between 31-40, 17.73% were between 41-50, 10.15% were over 50 years old), marital status (39.24% were single, 3.61% were widow, 57.15% were married), education status (24.61% had secondary school degree, 59.56% had university degree, 15.83% had master or PhD degree), income level (13.25% earned less than 1.500 TL, 56.63% earned between 1.500-5.000 TL, 21.51% earned 5.001-10.000 TL, 8.61% earned over 10.000 TL), house sharing (77.28% sharing with the family, 7.92% sharing with the friends, 14.80% living alone), the environment where the dog is kept (48.54% were in apartments, 37.87% were in houses, 8.43% were at farm, 5.16% were at fabric/work), number of the children (56.79% no children, 26.51% had 1 child, 16.70% had two and above), owning another pet(s) (19.26% do not own another pet, 15.06% owned another dog, 17.86% owned a cat, %47.82 owned other species rather than a dog or a cat), owners self-professionality definition (38.90% were amateur, 41.65% were semi-professional, 19.45% were professional).

Considering the respondents' answers, 72 dog breeds were determined. Furthermore those breeds were classified in terms of the body size (small <15 kg, medium between 15-35 kg, large above 35 kg), dog

temperament (dogs with dominance traits, dogs with submissiveness traits) and function of the dog (hunting, herding, guarding, sport, working in a service to a person with disabilities, toy). When determining the dogs' temperament, domination tendency of dog towards its owner and others, also the level of its instinctive reaction behaviour were considered (not its aggression level). In order to classify the dog breeds, national and international recognitions of canine associations and federations (FCI, UKC, AKC, BKC, KIF) were used.

Demographic profile of the dog owners and descriptive information of the dog breeds were stated by percentages and chi square methods were applied in order to determine significance level among the groups (SPSS, 1999).

Results and Discussion

Results of the questionnaire, which had been conducted to determine the demographic profile of the dog owners and the factors effecting the breed choice, were evaluated separately considering the size of dog, temperament, and breed's function.

The relation between demographic profile of dog owners and size of dog were presented by percentages in Table 1. Gender of the owner and the environment where the dog is kept had significant effect on size of the chosen dog. Male respondents had less interest in dogs below 15 kg while they preferred the medium size dogs by 23.5% and the dogs above 35 kg of live weight by 61.4%. On the other hand, female respondents mostly tend to prefer small size dogs rather than male respondents. Male respondents' dog size choice was determined as large, medium and small while it was determined as small, large and medium for women, respectively. The fact that male respondents had the tendency of choosing the large size dogs while female respondents chose the small size dogs could be linked with easiness of directing dogs while walking. Beside of this fact another reason which resulted in different dog choices between the genders could be their different expectations from the dog. Small dog breeds are morphologically more winsome and have higher companion ability which may resulted in women to choose small and medium size dogs. Furthermore, the reason of why men would prefer to own a large size dog breed would be caused by the fact that those breeds seem tougher and are more physically strong and their usage for guarding purposes.

The environment where the dog is kept also affected

people's choices. It was determined that 42.6% of the dogs that are kept in the apartments were small size dogs. The fact that taking care of small breeds would be easier in relatively small places would resulted in this outcome. Beside of that, appealingly large size dogs were the second dog breed group by 37.6% which followed the small breeds. Apartments are considered as an unsuitable place for having a large size dog due the fact that dog being unable to show its natural behaviour. In this study having a large size dog by 37.6% in the apartment shows that owners may not search well the natural behaviour traits and dog's habitat. In terms of the dogs that are kept in houses, farms and fabrics/work where the dog can show breed's natural behaviour easily, it can be observed that large breeds were chosen. Majority of the large size dogs have the behaviour and function of guarding could be the reason of being chosen by people who live in large places.

Age, marital status, education level, income level, house sharing, child number in the family, owning another pet(s) at home, owners self-professionality definition didn't have any significant effect on the dog breed choices ($P>0,05$).

Percentages which shows the relation between demographic profile of the owner and temperament of the chosen breed can be seen in Table 2. In the study it was observed that gender, education level and the environment where the dog is kept had a significant effect of temperament of chosen breed ($P<0.05$). Male dog owners preferred mostly breeds with dominance traits (66.9%) while female dog owners mostly preferred breeds with submissiveness traits (66%). This result could be attributed to the owner's expectation from the dog. Sometimes the idea of gaining social statue via dog, sometimes the expectation of family members of being protected would determine the function of dog breed. In this study it can be said that male dog owners had more mentioned expectations. When the education level of the owner was considered it can be observed that with an increase on the education level, owners tended to have more breeds with submissiveness traits. It was determined that the owners graduated from primary and secondary school, university and having master or PhD degree preferred to have dogs with dominance traits by 65%, 56.1% and 38%, respectively. In the social profile layers having different point of view toward dog specie is an indicator when making the choices. For the high educated dog owners, the ideas such as not seeing the

Table 1. The distribution of demographic profile of dog owners and size of dog (%).

Demographic profile of dog owners	n	Size of Dog (%)			Significance (P)
		Small	Medium	Large	
Gender					
Male	378	15.1	23.5	61.4	*
Female	203	45.8	14.8	39.4	
Age					
≤ 20	22	13.6	50.0	36.4	N.S.
21-30	189	30.2	21.2	48.7	
31-40	208	21.2	21.2	57.7	
41-50	103	30.1	16.5	53.4	
50+	59	25.4	11.9	62.7	
Marital Statue					
Single	228	23.2	25.0	51.8	N.S.
Married	332	25.6	17.8	56.6	
Widow	48	57.1	14.3	28.6	
Education Level					
Primary+secondary school	143	16.1	24.5	59.4	N.S.
University	346	27.2	20.8	52.0	
Master-PhD Level	92	35.9	13.0	51.1	
Income Level					
< 1500 TL	77	26.0	26.0	48.1	N.S.
1501 – 5000 TL	329	28.3	20.4	51.4	
5001 – 10000 TL	125	20.8	16.8	62.4	
10.001 TL +	50	22.0	22.0	56.0	
House Sharing					
Family	449	23.8	20.5	55.7	N.S.
Friend	46	39.1	21.7	39.1	
Alone	86	29.1	19.8	51.2	
The place where the dog is kept					
Apartment	282	42.6	19.9	37.6	*
House	220	10.5	23.2	66.4	
Farm	49	6.1	18.4	75.5	
Fabric/work	30	13.3	10.0	76.7	
Child number					
0	330	30.9	20.6	48.5	N.S.
1	154	22.1	21.4	56.5	
2+	97	14.4	18.6	67.0	
Owning another pet(s) at home					
None	110	27.3	21.8	50.9	N.S.
Another Dog	86	20.9	22.1	57.0	
Cat	102	19.6	16.7	63.7	
Other	273	28.9	21.6	49.5	
Self-professionality definition					
Amateur	226	30.5	18.1	51.3	N.S.
Semi-professional	242	22.7	22.3	55.0	
Professional	113	23.0	21.2	55.8	

*: <0.001, N.S. : Not significant

dog as a social statue instrument, accepting it as a family member and as a tool which helps to obtain family tranquillity and social relations, expectations mostly based on sharing the life rather than utilizing the dog, may have affected owners' dog breed choices. People that kept the dog in an apartment preferred to have dogs with submissiveness traits by 61%, people that kept the dog at house, farm and fabric/work mostly preferred dog breeds with dominance traits. This result could be attributed to the expectation of occurrence of

the protection behaviour from the dogs with dominance traits in such large places. The relationship between dog breed and owner's age, marital status, income level, house sharing, child number in the family, owning another pet(s), self-professionality definition was found to be insignificant

The relationship between demographic information of the dog owners and function of dog breed was shown in Table 3.

Owner's gender, age, education level, environment where the dog is kept had significant effect on function of the dog breed. Female respondents mostly preferred to have toy dogs while male respondents preferred guarding breeds mostly. The reason of women's tendency to have toy dogs would be caused by the easiness of directing the dog while walking. Furthermore, the reason of men's tendency to have guarding dogs would be linked with property rights of

houses, farms and fabric/work. This situation would have caused men to expect protection behaviour from the dog thus they would have preferred related dog breed. When considering the age of owners, with an increase in age it was observed that respondents had the tendency of preferring dogs which have the ability of hunting and accompaniment while their preference of choosing guarding and sport dogs decreased. Results of this study point that young individuals more likely

Table 2. The distribution of demographic profile of the owner and temperament of the dog breed (%).

Demographic profile of dog owners	n	Dogs With Dominance traits	Dogs with Submissiveness Traits	Significance (P)
Gender				
Male	378	66.9	33.1	*
Female	203	34.0	66.0	
Age				
≤20	22	63.6	36.4	
21-30	189	55.6	44.4	
31-40	208	62.0	38.0	N.S.
41-50	103	51.5	48.5	
50+	59	35.6	64.4	
Marital Statue				
Single	228	58.8	41.2	
Married	332	54.5	45.5	N.S.
Widow	48	33.3	66.7	
Education Level				
Primary + secondary school	143	65.0	35.0	*
University	346	56.1	43.9	
Master-PhD Level	92	38.0	62.0	
Income Level				
< 1500 TL	77	62.3	37.7	
1501 – 5000 TL	329	55.0	45.0	N.S.
5001 – 10000 TL	125	54.4	45.6	
10.001 TL +	50	50.0	50.0	
House Sharing				
Family	449	56.8	43.2	
Friend	46	50.0	50.0	N.S.
Alone	86	51.2	48.8	
The place where the dog is kept				
Apartment	282	39.0	61.0	
House	220	67.3	32.7	*
Farm	49	83.7	16.3	
Fabric/work	30	76.7	23.3	
Child number				
0	330	53.6	46.4	
1	154	55.2	44.8	N.S.
2+	97	61.9	38.1	
Owning another pet(s) at home				
None	110	48.2	51.8	
Another Dog	86	57.0	43.0	N.S.
Cat	102	53.9	46.1	
Other	273	58.6	41.4	
Self-professionality definition				
Amateur	226	49.1	50.9	
Semi-professional	242	57.0	43.0	N.S.
Professional	113	64.6	35.4	

*: <0.001, N.S.: Not significant

Table 3. The distribution of demographic information of the dog owners and function of dog breed (%).

Demographic profile of dog owners	n	Function of Dog Breed (%)						Significance (P)
		Hunting	Herding	Guarding	Sport	Accompaniment	Toy	
Gender								
Male	378	12.2	9.3	52.6	1.6	9.8	14.6	*
Female	203	5.9	3.4	23.2	3.4	18.7	45.3	
Age								
≤ 20	22	4.5	4.5	54.5	9.1	9.1	18.2	*
21-30	189	6.3	6.3	45.5	1.6	10.1	30.2	
31-40	208	8.7	7.2	49.5	2.9	10.6	21.2	
41-50	103	14.6	9.7	33.0	1.9	14.6	26.2	
50+	59	20.3	6.8	18.6	0	28.8	25.4	
Marital Statue								
Single	228	7.9	6.6	46.9	3.1	11.4	24.1	N.S.
Married	332	11.7	8.1	40.1	1.8	14.2	24.1	
Widow	48	4.8	0	28.6	0	9.5	57.1	
Education Level								
Primary+secondary school	143	17.5	5.6	53.1	2.8	5.6	15.4	*
University	346	7.2	7.5	41.9	1.4	14.7	27.2	
Master-PhD Level	92	8.7	8.7	27.2	4.3	17.4	33.7	
Income Level								
< 1500 TL	77	6.5	9.1	48.1	2.6	6.5	27.3	N.S.
1501 – 5000 TL	329	10.9	6.4	42.2	2.1	11.6	26.7	
5001 – 10000 TL	125	9.6	8.8	40.0	3.2	18.4	20.0	
10.001 TL +	50	10.0	6.0	40.0	0	18.0	26.0	
House Sharing								
Family	449	10.5	8.2	43.2	2.4	12.5	23.2	N.S.
Friend	46	6.5	4.3	37.0	0	13.0	39.1	
Alone	86	9.3	3.5	40.7	2.3	15.1	29.1	
The place where the dog is kept								
Apartment	282	5.0	1.1	33.7	2.8	16.0	41.5	*
House	220	15.5	8.6	50.5	1.8	12.3	11.4	
Farm	49	12.2	38.8	38.8	2.0	2.0	6.1	
Fabric/work	30	13.3	3.3	70.0	0	6.7	6.7	
Child number								
0	330	7.0	4.8	42.4	1.8	12.1	31.8	N.S.
1	154	12.3	9.1	43.5	2.6	13.0	19.5	
2+	97	16.5	12.4	40.2	3.1	15.5	12.4	
Owning another pet(s) at home								
None	110	9.1	5.5	40.0	3.6	16.4	25.5	N.S.
Another Dog	86	12.8	8.1	40.7	2.3	18.6	17.4	
Cat	102	20.6	9.8	37.3	2.9	8.8	20.6	
Other	273	5.1	5.9	46.9	1.5	11.4	29.3	
Self-professionality definition								
Amateur	226	7.5	2.7	38.9	2.2	18.6	30.1	N.S.
Semi-professional	242	12.0	8.7	43.8	2.1	10.7	22.7	
Professional	113	10.6	13.3	46.0	2.7	6.2	21.2	

*: <0.001, N.S.: Not significant

consider the dog as a social status tool and they choose mostly sportive dogs while older individuals generally expect friendship and sharing the loneliness at home. In terms of the education level, it was observed that with an increase in the education level the desire to own a guarding dog decreased, while preferring toy and accompaniment breeds increased. There is a connection between the environment where the dog is kept and the function of the dog breed. In terms of the purpose of ensuring the security at house, farm and fabric/work it was observed that the dog owners preferred to have guarding dogs. Conformably, hunting breeds were chosen by the people who live in large places due to considering movement allowance in those places. Furthermore, people that live in apartments preferred toy dogs which has small body size. However, 33.7% of the dog owners who live in apartments preferred to have a guarding breed. This result shows that even the dog owners who live in small places have the expectation of protection. Having the same percentages for farms in terms of the herding dogs (38.8%) and guarding dogs (38.8%) shows that owners made a proper choice considering dog's function and its benefit. Hunting dogs were preferred second by the people who keep the dog at work/fabric. This could be attributed to the owners hunting interest. .

Relationship between the dog function and marital status, income level, house sharing, child number at home, owning another pet(s), self-professionality definition was not found to be significant.

There are few studies which were conducted to determine the relationship between number of the owned dogs and demographic structure of the owners in Turkey. In one study which was conducted in Istanbul, most of the dog and cat owners were determined as being 26-41 years old, earning above 4000 TL/month and without a child. Furthermore, the reason of having a dog or cat was determined as

companion rather than pet's functional characteristics (Onur, 2012). The results of the studies were found compatible in terms of the age and income level. However, the reason of owning a dog differed between the studies. In this study the fact that female respondents choosing the small size dogs could be linked with easiness of directing dogs while male respondents choosing the guarding and hunting dogs could be linked with expectations from the dog's function. Respondents of the current study defined themselves as professional and semi-professional owners so that would resulted in choosing the dog breed by selective and conscious knowledge.

The environment where the dog is kept, regional differences, age and marital statue of the owner, number and psychological statue of the child/children at home effected on owning a dog (Kubinyi et al., 2009; Flint et al., 2010; Meyer and Forkman, 2014). In this study, only the dog owners was considered and gender, age, education level and environment where the dog is kept had significant effect on dog breed choices. Cultural differences among the people living on the earth would affect their point of view on dogs and comparative studies which conducted to determine the point of view between the civilizations should be considered.

Conclusion

As a result, it was determined that more than half of the dog owners made their breed choices on breeds over 35 kg live weight, large size and with dominance traits. Owners' tendencies to the dog breeds was affected by gender, age, education statues and environment where the dog is kept. However, marital status, income level, house sharing, child number in the family, owning another pet(s) at home didn't have any significant affect on the dog breed choices.

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