ABSTRACT

Besides being healthcare units, veterinary clinics are enterprises which contribute to national economy and supply employment opportunity for the public. It is important to know the clinic’s general structure, equipment facilities and provided services in order to determine the powerful and vulnerable areas of the companion animal sector and make required supports. In this study, a face-to-face survey was applied to veterinary clinic owners who graduated from Istanbul University, Faculty of Veterinary Medicine and have veterinary clinics in Istanbul. The results indicated that most of the veterinary clinics are single-storey, have 2 exam rooms and have one operation room. Pet boarding and pet coiffeur services were provided by the majority of the clinics, but an ambulance and a parking lot was not sufficiently provided. Clinics have made various medical equipment investments and the number of clinics having diagnostic tools is high. In terms of the patient demographics, it was determined that 62.6% of the patients were cats and 32.8% of the patients were dogs. Majority of the patients were between 2-5 years of age. Mini-small dog breeds were the dominant breeds, followed by medium-size dog breeds. Sex distribution was determined as similar between cat and dog patients. Furthermore, it was found that 73.8% of the dogs and 65.7% of the cats make regular visits. In conclusion, companion animal clinics in Istanbul were determined to have fragmented and independent structure, which results in high competition. In order to be successful in this competition, it was determined that veterinary clinics should have made investments into their medical equipment and diversify their services.

Keywords: Clinic establishment, companion animal, equipment, management, veterinary clinic
INTRODUCTION

Having cat and dog means receiving health and peace as well as love in return for the love given to them. Studies reported that having cats and/or dogs help to maintain a healthy body structure (Ratschen et al., 2020), reduce stress level (HMS, 2014) and contribute to emotional development of children during their growth period Vidovic et al., 1999). Due to those benefits, the number of companion animals has been constantly increasing in Turkey as well as in the World. In the last 5 years, the number of owned companion animals has reached 5 million (FEDIAF, 2020) from 4.3 million (FEDIAF, 2016), by increasing 16% in Turkey. In parallel, the commercial volume of the companion animal industry has reached 2 billion dollars (HEKTAS, 2020).

Istanbul is one of the most crowded and most developed cities in Turkey. It forms 18.8% of the national population (TSI, 2021a), and contributes 30.7% of the national gross domestic product (TSI, 2021b). As a result of these facts, companion animal sector has a significant importance in Istanbul comparing to other cities of Turkey. Out of 7915 clinics located around Turkey (MAF, 2021a), 749 clinics were established in Istanbul (MAF, 2021b).

Beside being a healthcare unit for the animals, veterinary clinics are businesses which contribute to national domestic product and create job opportunities for specific professional groups, such as veterinarians, technicians and laboratory personnel. Therefore, understanding the unique structures of the veterinary clinics has a vital importance for sustainable companion animal practices as well as contributes to the national economy. Beside the skill of a veterinarian, the number of exam rooms, equipment (X-ray machines, surgical and laboratory equipment) and optimal use of it are important to enhance harmony among patients which are in the clinic at the same time. Furthermore, maximizing exam room utilization is linked to increased profitability of the clinics (Clifton, 2021).

In this study, physical structures, technical equipment, patient demographics of the companion animal clinics owned by graduates of Istanbul University in Istanbul were analysed due to the importance for the companion animal sector of Istanbul University, Faculty of Veterinary Medicine, the oldest and the most prominent among a total of 31 veterinary educational establishments (CHE, 2021). The results of this study would help to determine general view of the veterinary clinics, which operate in Istanbul by graduates of Istanbul University, Faculty of Veterinary Medicine, and to understand the most developed and vulnerable areas of the clinics. The outcomes of the study would help veterinarians to operate their clinics successfully in a competitive business environment. Also, results could be considered by academicians of Istanbul University, Faculty of Veterinary Medicine in order to assess Faculty’s curricula according to industry’s latest situation.

MATERIAL AND METHODS

The material of this study was collected by 199 graduates of Istanbul University, Faculty of Veterinary Medicine and owners of veterinary clinics in Istanbul. The data were gathered through face-to-face surveys conducted with the veterinary clinics’ owners. For the statistical analyses, IBM SPSS Statistics 22 for Windows (IBM, 2013) and Microsoft Office Excel 2010 (Sumbuloglu and Sumbuloglu, 2012) programmes were used. In order to sample veterinary clinics, a simple random sampling method was applied. Simple Random Sampling method is the selection of a sample of
“n” units from a population of “N” units, by giving all samples of “n” units an equal chance for being selected (Orhunbilge, 2000). The remarkable strengths of this method are that it can be used more easily in large masses, gives equal chance to all units, and does not need weighing during data processing (Etikan, 1989). It was reported that 77.3% of the owners of the veterinary clinics were the graduates of Istanbul University, Faculty of Veterinary Medicine (Balaban and Gunes, 2021). By using the simple random sampling method, the sample size was calculated by assuming the number of veterinary clinics as 800 (Ozdamar, 2018; Newbold et al., 2019).

\[ n = \frac{N \times t^2 \times p \times q}{d^2 (N - 1) + t^2 \times p \times q} = \frac{579 \times 1.96^2 \times 0.5 \times 0.5}{0.05^2 (579 - 1) + 1.96^2 \times 0.5 \times 0.5} = 231.17 \]

In the above formulas; “n” represents the sample size, “N” represents the population size, “t value” is 1.96 (the equivalent of the 95% confidence threshold in the Tables), “p value” is 0.5 (observation frequency), “q value” is 0.5 (false discovery rate), “d value” is 0.05 (margin of error). In this case, the number of surveys received was quite high (86%).

**RESULTS**

The results of the study revealed that 23.6% of the veterinary clinics were sole corporation, and majority of the veterinary clinic types were determined to be clinics. It was found that 53.8% of the clinics were established between 2001-2010 (Table 1, Table 2 and Table 3).

| Status          | Frequency | Percent | Cumulative Percent |
|-----------------|-----------|---------|--------------------|
| Partnership     | 152       | 76.4%   | 76.4%              |
| Sole Corporation| 47        | 23.6%   | 100.0%             |
| **Total**       | **199**   | **100.0%** |                |

| Type            | Frequency | Percent | Cumulative Percent |
|-----------------|-----------|---------|--------------------|
| Clinic          | 164       | 82.4%   | 82.4%              |
| Policlinic      | 25        | 12.6%   | 95.0%              |
| Hospital        | 10        | 5.0%    | 100.0%             |
| **Total**       | **199**   | **100.0%** |                |
Considering the physical structures, it was determined that majority of the clinics were single-storey (57.3%), have 2 exam rooms (53.7%) and have one operation room (89.9%) (Figure 1, Table 4 and Table 5).

**Table 3** Year of establishment.

| Period          | Frequency | Percent | Cumulative Percent |
|-----------------|-----------|---------|--------------------|
| Between 1990 – 2000 | 36        | 18.1%   | 18.1%              |
| Between 2001 – 2010 | 107       | 53.8%   | 71.9%              |
| Between 2011 – 2020 | 56        | 28.1%   | 100.0%             |
| **Total**       | **199**   | **100.0%** |                    |

**Figure 1** Clinics’ floor situation.

**Table 4** Number of examination rooms.

| Rooms | Frequency | Percent | Cumulative Percent |
|-------|-----------|---------|--------------------|
| 1 Room | 61        | 30.7%   | 30.7%              |
| 2 Rooms | 107      | 53.7%   | 84.4%              |
| 3 Rooms | 29       | 14.6%   | 99.0%              |
| 4 Rooms | 1        | 0.5%    | 99.5%              |
| 5 Rooms | 1        | 0.5%    | 100.0%             |
| **Total** | **199**   | **100.0%** |                    |

**Table 5** Number of operation rooms.

| Rooms | Frequency | Percent | Cumulative Percent |
|-------|-----------|---------|--------------------|
| 1 Room | 179       | 89.9%   | 89.9%              |
| 2 Rooms | 19       | 9.5%    | 99.4%              |
| 3 Rooms | 1        | 0.6%    | 100.0%             |
| **Total** | **199**   | **100.0%** |                    |
It was revealed that parking lot, ambulance service, pet boarding and pet coiffeur were provided by 26.1%, 23.6%, 66.3% and 64.8% of the clinics, respectively, and majority of the veterinary clinics have 100-200 m² indoor size (Figure 2 and Table 6).

![Figure 2 Percentages of the veterinary clinics which provide parking lot, ambulance, pet boarding and pet coiffeur services.](image)

### Table 6 Indoor size of the clinics.

| Indoor Area       | Frequency | Percent | Cumulative Percent |
|-------------------|-----------|---------|--------------------|
| 50-100 m²         | 56        | 28.1%   | 28.1%              |
| 100-200 m²        | 105       | 52.8%   | 80.9%              |
| 200-500 m²        | 23        | 11.6%   | 92.5%              |
| More than 500 m²  | 15        | 7.5%    | 100.0%             |
| **Total**         | **199**   | **100.0%** |                    |

It was observed that 45.2% of the veterinarians did not find the indoor size of their clinics sufficient, and 91.6% of the veterinarians rent their clinics (Table 7).

### Table 7 Competence of indoor size and property status.

| Competence of indoor size | Yes   | 54.8% | 100.0% |
|---------------------------|-------|-------|--------|
|                           | No    | 45.2% |        |

| Property Status          | Rental | 91.6% | 100.0% |
|--------------------------|--------|-------|--------|
|                          | Owner  | 8.4%  |        |

All clinics (100.0%) have an inspection microscope, 96.5% of the clinics have an x-ray device, and 89.4% of them have a blood analyser machine. However, equipment such as a hydrotherapy unit, microsurgery set, physiotherapy unit, ozone therapy unit, laser therapy unit and endoscopy device were utilised by minority of veterinarians (Figure 3).
During the establishment period, 37% of the veterinarians stated that they were mostly faced with financial issues such as funding, patient flow etc., and 29.9% of the veterinarians reported they had considered having no clinics nearby around their target location (Figure 4 and Figure 5).

![Figure 3 Medical equipment in the clinics.](image)

![Figure 4 Problems encountered at establishment period.](image)

![Figure 5 Factors effecting on clinic’s location selection.](image)
In terms of patient distribution, it has been determined that cats represented the biggest group with a rate of 62.6% (Figure 6). Patients which were between 2-5 years of age were the mostly stated group for both cats and dogs (Table 8). Mini-small size dogs’ breeds were found to be majority by 50.4% among the other breeds (Figure 7). Female patients were predominant than the male patients for cats (54.1%), but it was contrary for dogs (48.4% females) (Table 9).

**Table 8** Age of cats and dogs distribution.

| Age             | Cats  | Dogs  |
|-----------------|-------|-------|
| Between 0-1     | 33.4% | 32.3% |
| Between 2-5     | 36.9% | 36.6% |
| Between 6-9     | 20.7% | 21.4% |
| 9 years and above | 9.0%  | 9.7%  |
| **Total**       | 100.0%| 100.0%|

**Table 9** Gender distribution.

| Gender | Cats  | Dogs  |
|--------|-------|-------|
| Male   | 45.9% | 51.6% |
| Female | 54.1% | 48.4% |
| **Total** | 100.0%| 100.0%|

It was found that 73.8% of cat patients were regularly visiting the clinics, while it was 65.7% for the dog patients (Table 10). Vaccination was determined to be the most common purpose of the first clinic visit (Table 11).

**Table 10** Regular and random visit distribution.

| Visit | Cats  | Dogs  |
|-------|-------|-------|
| Regular | 73.8% | 65.7% |
| Random  | 26.2% | 34.3% |
| **Total** | 100.0%| 100.0%|

**Table 11** First purpose of clinic visit.

| Purpose                      | Frequency | Percent | Cumulative Percent |
|------------------------------|-----------|---------|--------------------|
| Prophylaxis                  | 64        | 32.2%   | 32.2%              |
| Adoption                     | 25        | 12.6%   | 44.8%              |
| Vaccination                  | 79        | 39.7%   | 84.5%              |
| Treatment                    | 10        | 5.0%    | 89.5%              |
| Antiparasitic App.           | 21        | 10.5%   | 100.0%             |
| **Total**                    | 199       | 100.0%  |                     |
For general control, both species visit the clinic approximately once a year, while cats are reported to be vaccinated approximately 2 times and dogs 3 times per year. Annual food purchase from veterinary clinics frequency was determined to be approximately 9 times for both cats and dogs.

The annual number of applications for internal parasites protection was 5 times for cats and 6 times for dogs as well as 7 times for cats and 8 times for dogs for external parasites protection (Table 12 and Table 13).

**Table 12** Regular check, vaccination and pet food purchase frequency.

| Subject         | Pet     | N  | Mean  | Standard Deviation | Minimum | Maximum |
|-----------------|---------|----|-------|--------------------|---------|---------|
| Regular Check   | Cats    | 199| 1.2   | 0.99               | 0       | 4       |
|                 | Dogs    |    | 1.1   | 0.92               | 0       | 5       |
| Vaccination     | Cats    | 199| 2.6   | 0.39               | 1       | 3       |
|                 | Dogs    |    | 3.2   | 0.51               | 2       | 4       |
| Pet Food Pur-   | Cats    | 199| 9.4   | 2.35               | 4       | 12      |
| chase           | Dogs    |    | 9.0   | 2.04               | 4       | 12      |

**Table 13** Annual antiparasitic applications.

| Pet  | Applications | N  | Mean  | Standard Deviation | Minimum | Maximum |
|------|--------------|----|-------|--------------------|---------|---------|
| Cats | Endoparasite | 199| 5.1   | 1.12               | 4       | 8       |
|      | Ectoparasite |    | 6.9   | 2.13               | 4       | 12      |
| Dogs | Endoparasite | 199| 5.6   | 1.37               | 4       | 8       |
|      | Ectoparasite |    | 8.2   | 2.33               | 4       | 12      |

In Figure 8, the expectations of the veterinarians are shown. Most of the veterinarians (34.7%) expected owners of the companion animals to make an appointment before visits as well as making their full payment (34.1%).

**Figure 8** Expectations of veterinarians from pet owners.
DISCUSSION AND CONCLUSION

In this study, structural properties of the clinics in Istanbul, owned by the graduates of Istanbul University, Faculty of Veterinary Medicine, were evaluated in order to create awareness of the general views on the veterinary clinics. The results showed that 76.4% of the clinics were in a partnership status, while 23.6% of them were in sole corporation. The distribution of the veterinary clinic types depended mostly on clinical structure, where animal hospitals constituted only 5.0% and polyclinics 12.6% of the total number of veterinary clinics. According to the report provided by the Republic of Turkey Ministry of Agriculture and Forestry, the share of clinics, polyclinics and animal hospitals was 98.1%, 1.0% and 0.8%, respectively (MAF, 2021a). Results of this study show that the ratio of the animal hospitals and polyclinics was higher when comparing to the general distribution of veterinary clinics in Turkey.

In the study, most veterinary clinics were found to be established between 2001-2010 (53.8%) and 2011-2020 (28.1%). In Turkey, the number of companion animals started to increase after 2000s. Therefore, the average year of clinic establishment between 2001-2010 and 2011-2020 was expected.

In veterinary clinics, having sufficient number of examination rooms, operation rooms, size of the indoor area are all vital for the work efficiency and examining animals without stressing them. The number of sufficient rooms may vary according to the number of patients, but the main purpose should be to avoid the crowding. In case of insufficient indoor space, aggressive and submissive animals would confront during and/or before examination, thus the stress level would increase. At the same time, sufficient number of examination and operation rooms and providing the other services such as pet boarding and pet coiffeur, would positively impact the clinic’s income (Clifton, 2021). According to results, 57.3% of the clinics were single-storey, 53.7% had 2 examination rooms, and most of the clinics had one operation room (89.9%). In a study conducted in the USA, the average number of veterinary examination rooms in companion animal clinics reported was 3.1 (AVMA, 2018), which is similar to the current study. Beside the healthcare services, veterinary clinics obtain additional income by offering pet boarding and pet coiffeur. Furthermore, services which facilitate owner’s time management would impact the clinic choice by the owner. In this study, 66.3% of the clinics provided pet boarding and 64.8% of the clinics provided pet coiffeur. Furthermore, it was reported that 23.6% of the clinics provided ambulance service and 26.1% had a parking lot. The low percentages would indicate insufficient ambulance services and parking lots, which need to be enhanced.

Most veterinary clinics’ indoor sizes measured between 100-200 m². However, nearly half of the veterinarians stated that they were not satisfied by the indoor size for examination and operation services. To consider optimization of the indoor size is important for the veterinarians who are going to establish a new clinic. In a study conducted in Hungary in 2014, the average indoor size of the companion animal clinics reported was 93.4 m², which is similar to the current study (Ozsvari, 2014).

The global veterinary medical equipment market size was reported to have grown from $1.77 billion in 2020 to $2.08 billion, and the sector is expected to reach $2.65 billion in 2025 (BRC, 2021). In this study, it was concluded that veterinary clinics made various medical equipment investments, and the number of clinics having diagnostic tools was high. Having adequate number of diagnostic tools and using them effectively would improve the
efficiency of the treatment. and this could make a contribution to income. All clinics reported to have a microscope, 96.5% have an x-ray, and 89.4% have blood analyzers. However, the equipment such as hydrotherapy unit, microsurgery set, physiotherapy unit, ozone therapy unit, laser therapy unit and endoscopy device were utilised by a minority of veterinarians.

Establishment period of a veterinary clinic has a significant importance in order to ensure a veterinary practice in a sustainable, efficient and effective working environment. In this study, veterinarians reported that they were challenged by the financial (37.0%), location (30.7%) and employee (16.3%) issues during the establishment period. Furthermore, 29.9% of the veterinarians stated that they considered having no clinic around their target location during the establishment period.

In terms of the patient demographics, it was determined that 62.6% of the patients were cats and 32.8% of the patients were dogs. Majority of the patients were between 2-5 years of age. Mini-small dog breeds were the dominant breeds, followed by medium-size dog breeds (30.9%). Gender distribution was reported similar between cat and dog patients. Furthermore, it was found that 73.8% of the dogs and 65.7% of cats made regular visits.

The growing public awareness of zoonoses, especially rabies, endoparasites and ectoparasites, act as a driver for owners to vaccinate and apply endo and ectoparasite applications. In this study, it was determined that the average number of vaccinations was 3 times per year for dogs, 2 times for cats; 39.7% of the veterinarians stated that vaccination was the first purpose of patients’ visit. Companion animals were reported to make a regular visit once a year, and food purchase was 9.4 times for cats and 9.0 times for dogs. Parasite prevention application for ectoparasites was 6.9 for cats and 8.2 for dogs, and 5.1 times for cats and 5.6 times for dogs in terms of the endoparasites prevention application. In Europe, it is suggested to apply parasite prevention application monthly for ectoparasites in the areas where the flea and tick infestations are high by ESCCAP (European Scientific Council Companion Animal Parasites) (ESCCAP, 2018). In case of endoparasite prevention, the ESCCAP recommends 4-12 applications per year, even the necessary number of treatments would change considering animals’ living conditions, frequency of going out and eating bug(s) (ESCCAP, 2020). The results of this study in terms of the number of parasite prevention applications are consistent with ESCCAP’s recommendations.

In this study, expectations of the veterinarians were also asked about in order to enhance a health dialog between the owners and veterinarians. According to the results, majority of the veterinarians expected from the animal owners to make appointment (34.7%), full payments (34.1%) and trust the decisions of veterinarians (12.6%).

Istanbul is the most crowded and developed city in Turkey in terms of population and contribution to the national economy. Also, Istanbul University, Faculty of Veterinary Medicine is important for the companion animal industry with its tradition and experience. For this reason, veterinarians graduated from the Istanbul University operating companion animal clinics in Istanbul have a key role for the industry. This group, which has a critical role profession-wise, generally operates single-storey, medium-sized and independent clinics. In addition, the ratio between polyclinics and hospitals are higher in Istanbul than in Turkey, and this situation creates a fragmented market and high competition.
Veterinarians provide various additional services and devote time and resources to this field in order to have successfully operated clinics in Istanbul, where the competition is high. Similarly, due to competition, they purchase many pieces of medical equipment and use them in the clinics. It is also important that the clinics are established in the regions suitable in many respects. In order to be able to manage the problems that are likely to be encountered in the establishing phase and to operate clinics successfully, it is critical to have knowledge regarding finance and business management as well as in the field of veterinary medicine. In order to do this, the veterinary curricula should be updated, and continuous educational opportunities should be created.

ACKNOWLEDGEMENTS

This study was prepared from a part of the data obtained from the first author’s doctoral thesis titled “Some Socio-Demographic Parameters of Companion Animals Veterinary Medicine in Turkey and Technical and Economic Analysis of the Clinics”.

The authors would like to thank to veterinarians who filled out the surveys and colleagues from the Department of Animal Breeding and Husbandry, Istanbul University, Faculty of Veterinary Medicine for their support.

CONFLICT OF INTEREST

The authors declared that they have no potential conflict of interest with respect to the authorship and/or publication of this article.

REFERENCES

AVMA – American Veterinary Medical Association 2018. 2018 AVMA Report on The Market for Veterinary Services. https://www.avma.org/sites/default/files/resources/2018-econ-rpt3-veterinary-services.pdf (accessed 04.12.2021).

Balaban C, Gunes H. 2021. A research on some socio-demographic characteristics of companion animal veterinarians and economic structures of companion animal clinics in Istanbul. J Istanbul Vet Sci, 5(2), 72-86.

BRC - The Business Research Company 2021. The Veterinary Medical Equipment Market is Driven By Basic Requirements of Vaccinations and Microchipping as per the Business Research Company’s Veterinary Medical Equipment Global Market Report 2021. https://www.globenewswire.com/news-release/2021/11/09/2330678/0/en/The-Veterinary-Medical-Equipment-Market-Is-Driven-By-Basic-Requirements-Of-Vaccinations-And-Microchipping-As-Per-The-Business-Research-Company-s-Veterinary-Medical-Equipment-Global.html (accessed 15.12.2021).

Clifton D. 2021. What is Veterinary Facility Management?https://spaceiq.com/blog/veterinary-facility-management/ (accessed 16.12.2021).

CHE - Council of Higher Education 2021. Veterinerlik programı bulunan tüm üniversiteler. https://yokatlas.yok.gov.tr/lisans-bolum.php?b=10232 (accessed 15.12.2021).

ESCCAP - European Scientific Council Companion Animal Parasites 2018. ESCCAP Guideline 03 Sixth Edition, Control of Ectoparasites in Dogs and Cats. https://www.esccap.org/uploads/docs/mjy50wev_0720_ESCCAP_Guideline_GL3_v9_1p.pdf (accessed 30.10.2021).

ESCCAP - European Scientific Council Companion Animal Parasites 2020. ESCCAP Guideline 01 Sixth Edition, Worm Control in Dogs and. https://www.esccap.org/guidelines/gl1/ (accessed 30.10.2021).

Etikan I. 1989. Kume Orneklemesinde Alt Ornekleme Yontemi ve Sonuclara Etkisi (Master Thesis). Hacettepe University, Institute of Health Science, Department of Byostatistics, Ankara, Türkiye.

FEDIAF - The European Pet Food Industry 2016. Annual Report 2016. https://fediaf.org/images/FEDIAF_Annual_Report_2016_cor.pdf (accessed 7.11.2021).

FEDIAF - The European Pet Food Industry 2020. Annual Report 2020. https://fediaf.org/images/FEDIAF_Annual_Report_2020_cor.pdf (accessed 7.11.2021).
HMS - Harvard Medical School 2014. Why having a pet is good for your health. https://www.health.harvard.edu/staying-healthy/why-having-a-pet-is-good-for-your-health (accessed 16.11.2021).

HEKTAS 2020. Rakamlarla Pet Sektoru: 2 milyar dolarlik pazarda HEKTAS hamlesi. https://www.dunya.com/sirketler/2-milyar-dolarlik-pazarda-hektas-hamlesi-haberli-413047 (accessed 24.11.2021).

IBM 2013. IBM SPSS Statistics for Windows, Version 22.0. IBM Corporation Released. Armonk, New York, United States of America.

MAF - Republic of Turkey Ministry of Agriculture and Forestry 2021a. Tarim ve Orman Bakanligi 2020 Faaliyet Raporu.https://www.tarimorman.gov.tr/Konular/Plan-Program-Ve-Faaliyet-Raporlari/faaliyet-raporlar%c4%b1 (accessed 24.10.2021).

MAF - Republic of Turkey Ministry of Agriculture and Forestry 2021b. Veteriner Hizmetleri.https://www.tarimorman.gov.tr/Konular/Veteriner-Hizmetleri/Serbest-Veterinerlik-Ve-Veteriner-Laboratuvarlari (accessed 4.12.2021).

Newbold P, Carlson W, Thorne B. 2019. Statistics for Business and Economics: Global Edition (9. Edition). Pearson Education, London, United Kingdom.

Orhunbilge N. 2000. Ornekleme Yontemleri ve Hipotez Testleri. Avciol Basim Yayin, No: 4. Istanbul, Türkiye.

Ozdamar K. 2018. Egitim, Saglik ve Sosyal Bilimler için SPSS Uygulamali Temel Istatistik. Nisan Kitabevi, Eskisehir, Türkiye.

Ozsvari L. 2014. Practise management in the Hungarian small animal veterinary clinics. New Trends in Management in the 21th Century Conference (pp. 347-358), January 2014, Czestochowa, Poland.

Ratschen E, Shoesmith E, Shahab L, Silva K, Kale D, Toner P, Reeve C, Mills DS. 2020. Covid-19 lockdown phase in the UK: Investigating links with mental health and loneliness. PLoS ONE 15 (9): e0239397.

Sumbuloglu K, Sumbuloglu V. 2012. Biyoistatistik (15. Edition). Hatiboglu Yayinevi, Ankara, Türkiye.

TSI - Turkish Statistical Institute 2021a. Adrese dayali nufus kayit sistemi sonuclari. https://data.tuik.gov.tr/Bulten/Index?p=Adrese-Dayali-Nufus-Kayit-Sistemi-Sonuclari-2020-37210 (accessed 14.11.2021).

TSI - Turkish Statistical Institute 2021b. Il bazinda gayrisafi yurt ici hasila. https://data.tuik.gov.tr/Bulten/Index?p=Gross-Domestic-Product-by-Provinces-2019-33663 (accessed 14.11.2021).

Vidovic V, Stetic VV, Bratko D. 1999. Pet ownership, type of pet and socio-emotional development of school children. Anthrozoos, 12, 211-17.
ORGANIZACIJA I UPRAVLJANJE KLINIKAMA ZA KUĆNE LJUBIMCE U ISTANBULU ČIJI SU VLASNICI VETERINARI DIPLOMCI ISTANBULSKOG UNIVERZITETA

SAŽETAK

Osim što su zdravstvene ustanove, veterinarske klinike su i poduzeća koja doprinose nacionalnoj ekonomiji i pružaju mogućnosti zaposlenja. Kako bi se identificirale jake i slabe strane sektora koji se bavi kućnim ljubimcima, neophodno je poznавati opću strukturu klinika, opremu kojom raspolažu i usluge koje pružaju. Ovo istraživanje je obavljeno kontaktom uživo sa vласnicima klinika koji su diplomirali na Fakultetu za veterinarsku medicinu Univerziteta u Istanbulu i koji imaju veterinarske klinike u Istanbulu. Rezultati su pokazali da su većina veterinarskih klinika jednokatnice sa 2 ordinacije i jednom operativnom salom. Većina klinika raspolaže pansionima i salonima za kućne ljubimce, ali su ambulantna kola i parkinzi manjkavi. Klinike su investirale u različitu medicinsku opremu, a broj klinika koji raspolaže dijagnostičkim mogućnostima je veliki. Demografski prikaz pacijenata pokazuje da 62.6% pacijenata čine mačke, a 32.8% psi. Većina pacijenata imaju između 2 i 5 godina. Od pasmina pasa su dominantne mini–male pasmine, a nakon njih slijede psi srednje veličine. Raspodjela po spolu je slična između mačaka i pasa. Nadalje je ustanovljeno da 73.8% pasa i 65.7% mačaka su stalni pacijenti. U zaključku, čini se da su klinike za kuće ljubimce u Istanbulu fragmentirane i strukturalno neovisne, što rezultira jakom konkurencijom. Kako bi bile uspješne u toj konkurenciji, zaključeno je da bi veterinarske klinike trebale investirati u medicinsku opremu i proširiti paletu svojih usluga.

Ključne riječi: Otvaranje klinikе, kući ljubimci, oprema, upravljanje, veterinarska klinika