AN OVERVIEW OF ANIMAL FOSTER HOMES IN BRAZIL

(Caracterização de lares temporários para cães e gatos no Brasil)

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ABSTRACT - Animal foster homes (AFH) provide shelter for abandoned animals and are an essential part of street population management programs. An online survey was conducted in Brazil with questions about general aspects of AFH. A total of 150 AFH caregivers responded, most were female (n=140; 93.3%) with a mean age of 35.4 years. AFH in most cases conduct vaccination (n=103; 68.3%), treatment for internal parasites (n=142; 94.7%), external parasites (n=138; 92.0%) and neutering (n=113; 75.3%) to animals in their care. The principal problem for AFH is finding adopters (n=122; 81.3%) and indeed most AFH caregivers adopted some of the animals under their care (n=129; 86.0%). Although most AFH reported having no limit on housing time (n=61; 40.7%), there were significant differences between short-term (<3 months) and long term (>24 months) housing. Long-term AFH sheltered to more than 20 animals (P<0.05), frequently from the streets (P<0.05). Short-term AFH offered shelter to fewer than six animals (P<0.05), and generally housed old (P<0.05), chronically ill (P<0.05), amputees (P<0.05), deaf or blind animals (P<0.05) – often at the request of rescue groups (P<0.05). Sheltering fewer (<6) animals guaranteed greater adoptability in a shorter timeframe, thus avoiding kennel stress, overcrowding and potentially reducing the risk of disease outbreaks.

Key words: Abandoned animals; adoption; population management; shelter homes; street animals.

RESUMO - Os lares temporários (LTs) abrigam animais abandonados e são essenciais para os programas de manejo populacional de cães gatos. Uma pesquisa on-line foi realizada no Brasil visando compreender aspectos gerais dos LTs. Houveram 150 respondentes, a maioria do sexo feminino (n=140; 93,3%), com idade média de 35,4
anos. Na maioria dos casos, os LTs realizavam vacinação (n=103; 68,3%), tratamento para parasitas internos (n=142; 94,7%) e externos (n=138; 92,0%), e esterilização (n=113; 75,3%) dos animais. O principal problema foi encontrar adotantes (n=122; 81,3%), e na maioria dos casos os cuidadores adotaram alguns dos animais (n=129; 86,0%). Houve diferença significativa entre as moradias de curto (<3 meses) e longo (>24 meses) prazo. LTs de longo prazo abrigavam mais de 20 animais encontrados na rua (p <0,05). LTs de curto prazo abrigavam menos de seis animais (P<0,05), geralmente idosos (P<0,05), doentes crônicos (P<0,05), amputados (P<0,05), animais surdos ou cegos (P<0,05) - frequentemente a pedido de grupos de resgate (P<0,05). Abrigar menos (<6) animais garantiu uma maior taxa de adoção em um menor período de tempo, evitando assim o estresse do canil, a superlotação e potencialmente reduzindo o risco de surtos de doenças.

**Palavras-chave** - Adoção; animais abandonados; lares temporários; manejo populacional de cães e gatos.

**INTRODUCTION**

The plight of abandoned dogs and cats is a significant animal welfare issue worldwide (Albro et al., 2007; Silva et al., 2013). The increasing number of abandoned animals has triggered a rise in the number of people engaged in attempts to find solutions to this problem (Albro et al., 2007; Rodrigues et al., 2013). Therefore, the number of Non-Governmental Organizations (NGOs) for animal protection has increased, along with the number of independent AFH caregivers (Soares, 2006).

Animal protection centers mainly focus on the rescue of animals in suffering (Lewgoy et al., 2015). Animals are trapped, medically treated, and are sheltered while a search for adopters and new homes is undertaken (Rodrigues et al., 2013). The rescue and care of these animals is in most cases undertaken by voluntary initiatives, since public policies associated with these actions are limited (Lazarin, 2014). NGOs and independent AFH caregivers involved in such sheltering initiatives, experience a lack of resources, inadequate infrastructure, overcrowding, and disease outbreaks in rescue centers (Carpanezi et al., 2016).

Moreover, the increase in number of abandoned dogs and cats and the heightened public interest and concern in the welfare of these animals (Silva et al., 2013), more effective and compassionate alternatives for their population control in urban areas have emerged (Molento et al., 2007). Animal protection organizations that previously housed large numbers of dogs and cats have begun to promote housing of small
numbers of animals in numerous homes, transforming the rescue centers into AFH (Gomes, 2013). AFH are temporary shelters that aim to quickly find permanent homes for dogs and cats (Gomes, 2013). AFH provide special care to the animals and offer them for adoption in good body condition with minimal behavioral issues so that they do not adversely affect the well-being of the adopters (Osório, 2016). This innovative strategy reduces the overcrowding of dogs and cats in traditional shelters and reduces the risk of disease outbreaks (Albro et al., 2007). It also offers an additional option for the dog and cat population management programs in urban areas (Soares et al., 2006). Collective Veterinary Medicine (CVM) is a new multidisciplinary area of veterinary medicine that uses knowledge from collective health, shelter medicine, and legal veterinary medicine to promote the health of individuals, families, and communities, based on the One Health strategy. In this sense, dog and cat street population management is a big issue of CVM, demanding several approaches for the prevention of abandonment of dogs and cats and the improvement of animal welfare during the period of preparation for adoption in shelters (Polo et al., 2013; Santos et al., 2013; Garcia et al., 2019).

Although the regulation of animal shelters is not considered in the Brazilian animal welfare laws, there are a number of international manuals that provide guidelines, such as the Foster Care Manual developed by the Michigan Humane Society (MHS, 2008), the book of shelter medicine for veterinarians and staff (Miller and Zawistowski, 2012), the National Guidelines for Temporary Housing of New York (NPYR, 2015), and the Manual of Care for Temporary Dogs, USA (BFA, 2016). These guides, besides providing recommendations and protocols focused on caring for animals, also define the requirements that AFH must provide, such as adequate food, constant access to water, adequate illumination, and socialization with other animals and people (MHS, 2008; NPYR, 2015; BFA, 2016). To the best of the author's knowledge, there is no published information about the characterization of animal shelters or AFH in Brazil.

Since AFH play a fundamental role in dog and cat street population management programs, this study aims to characterize AFH in Brazil for the first time, by understanding the dynamics within AFH, the animal care, the search for adopters, as well as the challenges faced by the caregivers in the maintenance of these AFH

MATERIAL AND METHODS

An online survey consisting of 28 questions, of which 20 were multiple choice and eight were open-ended, was made available from March 5 to May 31, 2018, through the Google platform. The questionnaire was distributed through researchers' social media, and the websites of the National Forum for Animal Protection and Defense, Regional
Councils of Veterinary Medicine, Federal University of Paraná, and the World Animal Protection. Before answering questions, participants approved a consent agreement, which was a mandatory constituent to participate in the study.

The questions considered general aspects of AFH caregivers, AFH operations and animal adoptions. Since AFH are shelters that provide a pathway for the ultimate relocation of animals to permanent homes, the housing time of the animals was analyzed in detail. Thus, a multiple correspondence analysis (MCA), a multivariate data analysis, was employed to construct relationships among categorical variables and with AFH housing time. Chi-squared tests were performed to verify the association between all variables. The analysis of the eight open-ended questions was done by analyzing the most commonly used words in the answers and identifying broad categories of responses. Next, answers were grouped in the recognized categories and analyzed as multiple-choice questions. All statistical analyses were performed using R language (R Core Team, 2017)

RESULTS

Table 1 shows the answers to the questionnaire. Over the study period, answers from 150 AFH caregivers were obtained. The mean age of the AFH caregivers was 35.4 years (SD=11.7), the majority were between 18-39 years old (n=98; 65.3%) and most were female (n=140; 93.3%).

Responses were obtained from 69 municipalities in eleven states and the Federal District, as shown in Figure 1. AFH caregivers were principally from Southern Brazil (n=71; 47.3%), followed by the Midwest and Southeastern Brazil (n=35; 23.3%). The cities with the highest number of AFH caregivers were Curitiba/PR (n= 28; 18.7%), São Paulo/SP (n=10; 6.7%) and Foz do Iguaçu/PR (n=8; 5.3%). Most AFH caregivers were educated having completed college studies (n=34; 22.7%) and some had postgraduate qualifications (n=55; 36.7%).

The most frequently reported place for location of AFH was the caregiver home (n=131; 87.3%). Other locations included: other people’s homes such as parents’ homes or rented sites. Most AFH caregivers had offered foster homes between 2 and 5 times (n=59; 39.3%) to animals rescued directly from the streets (n=106; 70.7%) and did not respond to rescue requests (n=84; 56.0%). Most AFH had up to five animals (n=109; 72.7%) and had no preference in sheltering any specific age (n=137; 91.3%) or species (n=92; 61.3%), but some had preferences only for dogs (n=42; 28.0%) and others only for cats (n=16; 10.7%). Most AFH caregivers mentioned that new animals are initially kept
separate from the others (n=98; 64.9%) after which most animals then have free access to the residence (n = 57; 38.0%) or backyard (n = 55; 36.7%).

**Table 1** - Responses of the 150 AFH caregivers to the questionnaire about general aspects of the caregivers, operations and animal adoptions. (Continue).

| Questions | Figure acronym | N (%) |
|-----------|----------------|-------|
| **Characteristics of AFH caregivers** | | |
| **Gender** | | |
| Female | F | 140 (93.3) |
| Male | M | 10 (6.7) |
| **Age** | | |
| 18-29 | 18-29 | 21 (14.0) |
| 30-39 | 30-39 | 77 (51.3) |
| 40-59 | 40-59 | 34 (22.7) |
| > 60 | > 60 | 18 (12.0) |
| **Education** | | |
| Incomplete elementary school | Esc (Incomplete) | 1 (0.7) |
| Complete elementary school | Esc (elementar) | 3 (2.0) |
| Incomplete high school | Esc (incomplete_high) | 3 (2.0) |
| Complete high school | Esc (high) | 16 (10.7) |
| Incomplete higher education | Esc | 38 (25.3) |
| Complete higher education | (incomplete_higher) | 34 (22.7) |
| Majors | Esc | 55 (36.7) |
| **How many times have offered AFH** | | |
| Once | Times (1) | 43 (28.7) |
| 2 to 5 | Times (2-5) | 59 (39.3) |
| 6 to 10 | Times (6-10) | 9 (6.0) |
| More than 10 | Times (>10) | 39 (26.0) |
| **Main difficulty in providing AFH** | | |
| Costs | Costs | 81 (54.0) |
| Animals behavior | Behavior | 46 (30.7) |
| Resistance of family members | Family | 40 (26.7) |
| Finding adopters | Adopters | 122 (81.3) |
| Time to care for animals | Time | 36 (24.0) |
| **Characteristics of AFH** | | |
| Location of AFH | | |
| Own residence | Own_residence | 131 (87.3) |
| Family residence | Family_residence | 2 (1.3) |
| Other residence | Other_residence | 18 (11.9) |
| Number of animals at AFH | | |
| 1 to 5 animals | Number_animals (1-5) | 109 (72.7) |
| 6 to 10 animals | Number_animals (6-10) | 18 (12.0) |
| 11 to 20 animals | Number_animals (11-20) | 11 (7.3) |
| More than 20 animals | Number_animals (11-20) | 12 (8.0) |
| Animal arrival from Streets Rescue requests | Streets (Y) Rescue (Y) |
|--------------------------------------------|------------------------|
| Species preferences at AFH | |
| Cats Species_pref (Cats) | 16 (10.7) |
| Dogs Species_pref (Dogs) | 42 (28.0) |
| No species preference Species_pref (N) | 92 (61.3) |
| Age preferences at AFH | |
| Puppies Animal_age (Puppy) | 7 (4.7) |
| Adults Animal_age (Adults) | 6 (4.0) |
| No preference Animal_age (N) | 137 (91.3) |
| AFH to dogs with special needs | |
| Old animals Old_animals | 61 (40.7) |
| Blind or deaf animals Blind_deaf | 35 (23.3) |
| Amputee animals Amputated | 47 (31.3) |
| Animals with chronic diseases Chronic_diseases | 54 (36.0) |
| Do not offer Do_not_offer | 64 (42.7) |
| New animals are placed | |
| In isolation New_arrivals (Isolated) | 98 (64.9) |
| Mixed with existing animals New_arrivals (Same_area) | 43 (28.1) |
| Other New_arrivals (Other) | 9 (6.1) |
| Animals remain most of the time | |
| Free in backyard Free_backyard | 55 (36.7) |
| Restrained with chains Chained | 0 (0.0) |
| In cages Cages | 0 (0.0) |
| In kennels kennels | 13 (8.7) |
| Inside the residence Inside_residence | 25 (16.7) |
| Free in the residence Free_residence | 57 (38.0) |
| Minimum housing time | |
| Less than one week MinT (<1w) | 65 (43.3) |
| 1 to 4 weeks MinT (1-4w) | 22 (14.7) |
| 4 to 8 weeks MinT (4-8w) | 5 (3.3) |
| 8 to 12 weeks MinT (8-12w) | 6 (4.0) |
| More than 24 weeks MinT (>24) | 52 (34.7) |
| Maximum housing time | |
| Less than one month MaxT (<1m) | 33 (22.0) |
| 1 to 3 months MaxT (1-3) | 16 (10.7) |
| 3 to 6 months MaxT (3-6) | 10 (6.7) |
| 6 to 12 months MaxT (6-12) | 11 (7.3) |
| 12 to 24 months MaxT (12-24) | 8 (5.3) |
| More than 24 months MaxT (>24) | 11 (7.3) |
| No maximum time | 61 (40.7) |
Caregiver provides to animals

| Bath      | Bath      | 133 (88.7) |
|-----------|-----------|------------|
| Grooming  | Grooming  | 77 (51.3)  |
| Vaccination | Vaccines | 103 (68.3) |
| Microchip | Microchip | 16 (10.7)  |
| Neutering | Neutering | 113 (75.3) |
| Treatment for internal parasites | Internal_parasites | 142 (94.7) |
| Treatment for external parasites | External_parasites | 138 (92.0) |

Routine walk with the animals

| Once a day | Walk (Once_a_day) | 22 (14.7) |
| More than once a day | Walk (>1d) | 11 (7.3) |
| Once a week | Walk (Once_a_week) | 15 (10.0) |
| More than once a week | Walk (>1w) | 17 (11.3) |
| Do not walk with the animals | Walk (N) | 66 (44.0) |
| Did not answer the question | Walk (NA) | 19 (12.7) |

Adoptions

Caregivers previously adopted their own animals

| Already_adopt (Y) | 129 (86.0) |
| Already_adopt (N) | 22 (14.0) |

Difference in time until adoption

| Dif (Male_dogs) | 21 (14.0) |
| Dif (Fem_dogs)  | 23 (17.3) |
| Dif (Male_cats) | 25 (16.0) |
| Dif (Fem_cats)  | 9 (6.0) |
| Dif (N)         | 70 (46.7) |

Age adopted faster

| Faster (Puppy) | 137 (90.7) |
| Faster (Adult) | 1 (0.7) |
| Faster (N)     | 13 (8.7) |

Size of animals adopted faster

| Size (Small) | 127 (84.7) |
| Size (Big)   | 0 (0.0) |
| Size (N)     | 23 (15.3) |

Caregivers asks questions of adopters

| Questions (Y) | 144 (96.0) |
| Questions (N) | 7 (4.0) |

Questions asked to adopters

| Space for animal | Space | 88 (58.7) |
| Money to keep the animal | Money | 70 (46.7) |
| Experience caring for animals | Family_support | 20 (13.3) |
| Presence of other animals | Space | 35 (23.3) |
| Time to care for the animal | Other_animals | 28 (18.7) |

Although the costs of providing AFH were often reported as a challenge (n=81; 54.0%), the main issue was identification of suitable adopters (n=122; 81.3%). However, other concerns such as animal behavior issues (n=46; 30.7%), family resistance to activity (n=40; 26.7%) and the time dedicated to animals (n=36; 34.0%) were also listed. Although
uncommon, AFH sheltered old animals (n=61; 40.7%), animals with chronic diseases (n=54; 36.0%), animals with amputated limbs (n=47; 31.3%) or deaf/blind animals (n=35; 23.3%). The majority of the AFH caregivers offered treatment against internal (n=142; 94.7%) and external (n=138; 92.0%) parasites, bathing (n=133; 88.7%), spaying/neutering (n=113; 75.3%) and vaccination (n=103; 68.3%). Most AFH caregivers did not regularly walk the animals (n=66; 44.0%) or walked once a day (n=22; 14.7%).

![Figure 1](image)

**Figure 1** - Spatial distribution of AFH participant caregivers in the present study. In blue, the states from which responses were obtained. It is possible to observe that the majority of AFH caregivers that participated in the study are mainly in the southern region of Brazil.

The majority of the AFH caregivers (n=129, 86.0%) stated that they had adopted some of the rescued animals themselves. AFH caregivers indicated that it was easier to find adoption homes for puppies (n=137; 90.7%) and small breed animals (n=127; 84.7%). No time difference was reported until adoption (n=70; 46.7%) between dogs and cats of either sex. AFH caregivers reported that they generally interviewed of the potential adopters (n = 144, 96%). The main questions were regarding the space in the new house (n=88; 58.7%), the income of future caregivers (n=70; 46.7%), the presence of other animals (n=35; 23.3%), the time to care for the animal (n=28; 18.7%) and previous experience of caring for animals (n=20; 12.3%).
Most AFH reported not having a limit on sheltering time (n=61; 40.7%). Although a minimum sheltering time of less than a week (n=65; 43.3%) was common, some AFH caregivers reported minimum housing times greater than 24 weeks (n=52; 34.7%) and maximum housing times greater than 24 months (n=72; 48%). Figure 2 represents a structural organization of the variables and categories in a two-dimensional space, which allows the identification of patterns in the data and associations between short-term (< 3 months; n=49) and long-term (>24 months; n=72) housing, using the maximum housing time reported by the AFH caregivers. Figure 2 shows a clear difference between the short-term and long term AFH, whilst medium-term housing has characteristics of both short-term and long-term housing groups. A maximum housing time was mainly associated with the number of animals maintained in the AFH and with the absence of old animals (P<0.05), chronically ill (P<0.05), amputees (P<0.05), deaf or blind (P<0.05). Short-term AFH offered shelter to fewer than six animals (P<0.05) while long-term AFH housed more than 20 animals in some cases. In relation to the care offered to animals, in long-term AFH a greater proportion of AFH caregivers never walked their animals, while the highest spay/neuter rates were observed in short-term AFH. In the short-term AFH, more animals were sheltered following requests from the public (P<0.05), whereas in the long-term AFH, they were more often rescued from the streets. AFH caregivers in short-term AFH were more worried about the costs associated with maintenance of the AFH (P<0.05) and those in long-term AFH were more concerned about resistance of family members to their activities and the financial capabilities of potential adopters (P<0.05).
Figure 2 - Multiple correspondence plot of the variables associated with the characterization of foster homes in Brazil. There are clear differences between the housing times of the animals. Positively correlated variables are grouped together, and negatively correlated variables are positioned on opposite quadrants. As the distance between variables and the origin measures the quality of the variables on the factor map, only variables relevant to the PCA were plotted.

DISCUSSION

In this study, most of AFH caregivers were female mainly between 18-39 years old. A greater number of female AFH caregivers was also observed in the studies of Santos (2015) and Osorio (2016). This finding can be attributed to several factors including: biological (maternal impulse) and sociocultural (raised to be caring and attentive since birth) factors (Herzorg et al., 1991). Similarly, it has been reported that animal rights activists are mostly young (18-34 years old) women (Jerolmack et al., 2003), possibly due to the influence of growing feminist and civil rights movements over the past 30 years where the fight for rights and protection has extended to non-human animals. The predominance of AFH caregivers from the South and South-eastern regions can be explained by the greater dissemination of the questionnaire in these states as a result of pre-established contacts with the Animal Defense Forum of Curitiba and some NGOs, especially in Curitiba and adjacent cities.
Most of the AFH caregivers used their own home as AFH, in concordance with findings in previous studies (Santos, 2015). Long-term AFH caregivers were primarily concerned about resistance of family members to their activities. The caregiver's involvement with AFH impacts their personal life and often leads to abandonment of family commitments, which may cause dissatisfaction among relatives who live with the AFH caregivers (Grisci et al., 2017). In addition, caring for dogs and cats requires changes in routine, including, such as, cessation of socialization with people who do not like animals (Mendonça et al., 2014). AFH caregivers should be ready to deal with barking, grunting, mewing, marking of territory, and other unwanted behaviors that may result from sheltered animals (NPYR, 2015).

Most AFH housed up to six animals, which demonstrates that the objective is to keep a small number of animals to ensure a good facility and dignified care (MHS, 2008). Moreover, overcrowding of animals reduces their well-being, as it induces stress, decreasing immunity and favors the onset of infections, especially in debilitated animals (Turner et al., 2012). We found that a maximum housing time was mainly associated with the number of animals maintained and that in long-term AFH a greater proportion of AFH caregivers had reduced individual care for their animals. Overcrowding animals is associated with long-term housing, potentially generating physical and mental health problems in animals (Turner et al., 2012). Since AFH are shelters that act as a gateway, aiming at the relocation of the animals into permanent homes, the maximum housing time of these animals should ideally be for a few weeks (MHS, 2008; NPYR, 2015; BFA, 2016). The shelter of many animals can represent several difficulties, consequences of the scarcity of resources and support, as well as being a warning about a possible situation of animal hoarding. For this reason, regularizations are required stipulating housing densities, sanitation requirements, veterinary care, and regular inspection of licensed facilities. Such criteria could help the media, the public, as well as the courts to distinguish between legitimate sheltering efforts and hoarding (Gary et al., 2001).

Most AFH reported no preference for species or age of the housed animals. Even protectors who generally focus on certain species, in some cases, may come to rescue other species (Lewgoy et al., 2015). Most AFH caregivers mentioned that new animals were housed separated from the others. This is an important practice because when the animals are temporarily rescued, they may be frightened or insecure, so it is important to prepare a special area to facilitate their adaptation into the new home (BFA et al., 2016). In fact, after the arrival of new animals, these should be kept separate from the others for seven to ten days (MHS, 2008). The majority of AFH caregivers stated that they ascertained the animal caring experience and the capabilities to address special needs of
the animals from the potential adopters through informal interview sessions. A
questionnaire allows information about the potential adopter to be obtained and is an
important element to ensure suitability of the AFH caregiver for adoption of the animals
(Soares, 2006; Gomes, 2013). Most of the AFH offered treatment against internal and
external parasites, as well as bathing, spaying/neutering and vaccination. According to
Santos (2015), treatments against fleas, ticks and intestinal parasites, and neutering, are
fundamental processes in the transformation of an abandoned animal into a potentially
adoptable one.

Almost all AFH caregivers consider that there is a preference for adoption of
puppies. Adopters also considered it was more difficult to secure adoption homes for
large animals as they require more space and exercise (Mendonça et al., 2014). The size
of the animal can also contribute to failure of the adoption process since, if the adopted
puppy is larger than expected, the animal may be abandoned again (Paploski et al.,
2012). The preference for the adoption of male dogs may be due to their potential to
become house guards (Ramirez, 2019) and because of the ease of care compared to
females with regard to unwanted litters (Soto et al., 2015). In contrast, males may not be
desired as they may be more aggressive and more likely to escape (Mondelli et al., 2010;
Rodrigues et al., 2013; Polo et al., 2015). The majority of the AFH caregivers stated that
they had personally adopted some of the rescued animals and this was not related to
AFH housing time. AFH caregivers find it hard to detach from the animals in their care,
and many describe feelings of loss and fear when adoption occurs because there are
always uncertainties about the animal's future and, even after thoroughly ensuring the
suitability of potential adopters, the process may fail (Lewgoy et al., 2015). In contrast,
other AFH caregivers describe that passing the animal on to permanent adopters is
immensely rewarding (MHS, 2008). It is important to consider that a person who assumes
the responsibility of offering an AFH should have time and space available to the animals
(Muraro et al., 2014).

CONCLUSION

AFH play a fundamental role in street population management programs, and
therefore creation of public policies for their maintenance is essential, particularly in Latin
American countries. In Brazil, AFH are mainly run by women in their own homes and they
rescue animals found abandoned in the streets. In general, they provide vaccination,
treatment for parasites and castration to the animals. The biggest issue for AFH
caregivers is finding adopters for the animals, however, AFH caregivers are cautious at
the time of adoption and often questioned the potential adopters to establish their suitability. In this study we found that sheltering a small number of animals (less than six animals) provides a better chance of adoption in a shorter time period, thus avoiding kennel stress, overcrowding and potentially disease outbreaks. This study explored the characteristics of Brazilian AFH, and the challenges encountered by the caregivers in the AFH, emphasizes the need for support of these shelters from public health institutions, and the demand of public policies regulating AFH as components for street population management programs. This study has the potential to serve as a basis for the development of Brazilian guidelines for AFH.

REFERENCES
ALBRO HOUPT, K.; GOODWIN D.; UCHIDA Y. et al. Proceedings of a workshop to identify dog welfare issues in the US, Japan, Czech Republic, Spain and the UK. Applied Animal Behaviour Science, v. 106, p. 221-233, 2007.
ANANDARAJAN, M.; HILL, C.; NOLAN, T. Cluster analysis: modeling groups in text. In Practical Text Analytics (pp. 93-115). Springer, Cham. 2019.
CARPANEZI, C.; TOMAZELA, M.J.; PONTES, A. Desenvolvimento de um aplicativo mobile para doação de animais de estimação. Revista de Estudos e Reflexões Tecnológicas da Faculdade de Tecnologia de Indaiatuba, v 14, 2016.
DOG FOSTER CARE MANUAL, USA, 2016. Best Friends Animal Society (BFA). www.bestfriends.org/resources/dog-foster-care-manual. (Accessed 10 october2018)
DOMINGUES, LR.; CESAR, J.; FASSA, AG.; DOMINGUES, MR. Guarda responsável de animais de estimação na área urbana do município de Pelotas, RS, Brasil. Ciência & Saúde Coletiva, v. 20, p. 185-192, 2015.
FOSTER CARE MANUAL, 2008. Michigan Humane Society (MHS). www.petfinder.com/docs/admin/foster/member-foster-manual.pdf (Acessed 01 october 2018)
GARCIA, RCM.; CALDERÓN, N.; BRANDESPIM, DF. Medicina Veterinária do Coletivo – Fundamentos e Prática. Integrativa Vet Brasil, ISBN 978-65-80244-00-3, 2019, 506 p.
GARY, J.; PATRONEK, VMD.; HOARDING OF ANIMALS RESEARCH CONSORTIUM. The problem of animal hoarding. Municipal Lawyer, v. 19, p. 1-19, 2001.
GOMES, CG. Guarda responsável de animais de companhia: Um estudo sobre a responsabilidade civil dos proprietários e a entrega de cães e gatos na Diretoria de Vigilância Ambiental do Distrito Federal. 70 p. Monografia (Conclusão de curso de Medicina Veterinária) – Faculdade de Agronomia e Medicina Veterinária, Universidade de Brasília, Brasília, DF. 2013.
GRISCI, I.; LOCATELLI, PA.; D’ARISBO, A. A Vida na Lógica do Acolhimento Temporário de Animais. Revista Gestão e Planejamento, Salvador, v. 18, p. 23-36, 2017.

HERZORG, H.; BETCHART H.; PITTMAN, RB. Gender, Sex Role Orientation, and Attitudes toward Animals. Anthrozoós, v. 4, p. 184-191, 1991.

JEROLMACK, C.; 2003. Tracing the Prole of Animal Rights Supporters: A Preliminary Investigation. Society & Animals 11:3. www.animalsandsociety.org (Acessed: 01 july 2019)

LAZARIN, LR. A comunicação como estratégia de gestão em ONGs: informação, sensibilização e engajamento para sustentar e ampliar a garantia dos direitos dos animais. 2014. Rio Grande do Sul. 84f. Trabalho de Conclusão de Curso (Graduação em Medicina Veterinária). Curso de Medicina Veterinária, Universidade Federal do Rio Grande do Sul.

LEWGOY, B.; SORDI, L.; PINTO, O. Domesticando o humano: para uma antropologia moral de proteção animal. Revista Ilha. Florianópolis, v. 7, p. 75-100., 2015.

MENDONÇA, T.O.; MELO, MF. Adoção de Cães por Universitários: um estudo ator-rede sobre a relação humano/não-humano. Pesquisas e Práticas Psicossociais, v. 9, p. 130-141, 2014

MILLER, L.; ZAWISTOWSKI, S. Shelter Medicine for Veterinarians and Staff. JhonWiley & Sons, 2013, 744 p.

MOLENTO, CF.; LAGO, E.; BOND, GB. Controle populacional de cães e gatos em dez Vilas Rurais do Paraná: resultados em médio prazo, Archives of Veterinary Science, v. 12, p. 43-50, 2007.

MONDELLI, F.; PREVIDE, EP.; VERGA, M.; VALSECCHI, P. The Bond That Never Developed: Adoption and Relinquishment of Dogs in a Rescue Shelter. Journal of applied animal welfare Science, v. 7, 2010.

MURARO, C.; ALVES, DN. Maus tratos de cães e gatos em ambiente urbano,defesa e proteção aos animais. Inimbito Jurídico, v. 122, 2014.

NATIONAL GREAT PYRENESS (NPYR). Fostering Guidelines. 2015. www.nationalpyr.org (Accessed 10 october 2018)

OSÓRIO, A. Compaixão, Moral e Sofrimento Animal Entre Protetores de Gatos de Rua, Luminuras, Porto Alegre, v. 17, p. 51-82, 2016.

PAPLOSKI, I.; DEXHEIMER I. Características dos adotantes de cães na área urbana de Botucatu. Veterinária e Zootecnia, v. 19, p. 584-592, ISSN 2178-3764, 2012.

POLO, G.; CALDERÓN, N.; MARQUES, AR.; SANTOS, O.; OLIVEIRA, ER.; VIEIRA, AL; GARCIA, RC. Guia práctico para o manejo de cães em canis. São Paulo, ISBN: 978-85-67421-00-1, 2013, 33 p.
An overview of animal foster homes in Brazil

POLO, G.; CALDERÓN, N.; CLOTHIER, S.; GARCIA, RC. Understanding dog aggression: Epidemiologic aspects: In memoriam, Rudy de Meester (1953-2012). Journal of Veterinary Behavior: Clinical Applications and Research, v. 10(6), p. 525-534, 2015.

R CORE TEAM, 2017. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

RAMIREZ, M. “My dog’s just like me”: Dog ownership as a gender display. Symbolic Interaction, v. 29(3), p. 373–91, 2006.

RODRIGUES, R., POLO, G., CASTAGNA, CL. et al. Caracterização de casos de agressão canina em Campinas, São Paulo, Brasil. Brazilian Journal of Veterinary Research and Animal Science, v. 50(3), p. 233-237, 2013.

SANTOS, O.; POLO, G.; GARCIA, R.; OLIVEIRA, E.; VIEIRA, A.; Calderón, N.; De Meester, R. Grouping protocol in shelters. Journal of Veterinary Behavior, v. 8(1), p. 3-8, 2013.

Silva, AJ,; Guilhoux, AG.; Zetun, C.; et al. Abandono de cães na América Latina: revisão de literatura. Revista de Educação Continuada em Medicina Veterinária e Zootecnia do CRMV-SP, v. 11(2), p. 34-41, 2013.

Soto, F.; Ferreira F.; Pinheiro, SR. et al. Adoption of Shelter Dogs in a Brazilian Community: Assessing the Caretaker Profile. Journal of Applied Animal Welfare Science, v. 8, p. 105-116, 2005.

Srnka, KJ.; Grhos, R.; Eckler, I. Increasing fundraising efficiency by segmenting donors. Australasian Marketing Journal (AMJ), v. 11, p. 70-86, 2003.