

Pet Husbandry

Subjects: Zoology

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Pet husbandry is the practices applied in day-to-day care of animal companions, which can greatly impact animal welfare. Pet husbandry include: (1) origin of pets; (2) number and type of pets in the household; (3) diet type and feeding practices; (4) living environment and daily activities; (5) preventive treatment for parasites and vaccination; (6) regular veterinary check-ups and access to health care; and (7) compliance with legal requirements and identification.

Keywords: companion animals, pets, husbandry,

1. Introduction

Pet husbandry is defined as **day-to-day care of companion animals**. This includes lifestyle, such living environment (e.g. indoor vs. outdoor, multi-pet household) and activity (e.g. sedentary vs. active), diet choice and practices (e.g. what is fed and how), and veterinary care, including preventive health and treatments ^[1]. Pet owners are increasingly aware about the cats and dogs' needs, aiming to improve animal welfare through better husbandry and knowledge ^[2]. On the other hand, exotic pets still frequently suffer from inappropriate husbandry, despite being sold as "easy to keep" pets, which often translates into medical conditions (e.g. shell rot in turtles) ^[3].

Companion animals are also increasingly being considered family members ^[4], benefiting their owners by contributing to physical and psychological wellbeing, for instance, by improving social activities and daily exercise ^[5]. Conversely, pets can contribute to exposure to zoonotic diseases (e.g. vector-borne diseases), especially when lacking proper husbandry practices ^[6].

Awareness of proper husbandry practices are essential to improve pet health and welfare. For instance, cat from owners with greater knowledge had fewer behavioral problems and better welfare ^[7]. Unfounded beliefs of owners, which can be overcome through education, are also factors leading to accidental kitten litters ^[8]. Veterinarians play an important role in the education of pet owners, which translates in better pet care ^[9]. Despite well intentioned, the use of internet by pet owners to obtain information can be counterproductive, sometimes worsening husbandry practices ^[10]. Knowledge of current husbandry practices can provide information on the education strategies to be adopted ^[11] and motivate future policy decisions ^[12].

2. Pet husbandry practices

1. Origin of the pets (e.g. adopted, purchased);
2. Number and type of pets in the household;
3. Diet type and feeding practices;
4. Living environment and daily activities;
5. Preventive treatment for parasites and vaccination;
6. Regular veterinary check-ups and access to health care;
7. Compliance with legal requirements and identification (e.g. microchip).

2.1. Origin of pets

In Portugal, 82.8% of pets are adopted but only 16.2% are adopted from animal rescues ^[2], likely due to large bureaucratic requirements and negative feelings when rejected ^[13]. Moreover, owners who reported purchasing pets had more negative views of neutering and spaying ^[2]. Therefore, origin of pets can also be related to other beliefs that may influence husbandry practices.

2.2. Number and type of pets in the household

In Portugal, cats and dogs were the most frequent pets, which 36.9% of houses having both cats and dogs ^[2]. The number and type of pets can be important factors on husbandry and welfare. For instance, treatment for parasites, and sometimes infectious diseases, should be conducted on all pets in a household. Another example is the different needs of multi-cats households, which should respect the needs for solitude of cats (e.g. multiple litter boxes, spread out feeding bowls), which could otherwise lead to unwanted behaviors, such as house soiling ^[14].

2.3. Diet type and feeding practices

Currently, companion animals can be fed a multitude of different diets, which often follow consumer trends. Concerns over commercial diets, often unfounded, and intentions of providing a more "natural" diet and improve pet health has given rise to numerous alternative diets. These alternative or homemade diets make up 10.1% of diets fed to pets in Portugal ^[2] and 16.5% in the USA ^[15]. However, these unconventional diets are often nutritionally inadequate, often present bacterial contamination, and provide no benefit compared to commercial diets, potentially leading to health problems ^[16]. Feeding strategies should also consider how, how often, how much the animal consumes. For instance, feeding cats with food puzzles may have health and behavioral benefits ^[17].

2.4. Living environment and daily activities

The living environment should consider if the pet lives indoors, outdoors, or lives indoors with varied access to the outdoors ^[2]. Living environment may also influence exposure to parasitic and infectious agents. For instance, cats with access to the outdoors often present higher parasitism with *Toxoplasma gondii* ^[18]. For exotic animals, living environment may also consider other variables, such as UV light exposure, humidity, and temperature ^[19]. Important daily activities include play, exercise, and walks. Environmental enrichment may provide mental and physical stimulation for indoor animals ^[20].

2.5. Preventive treatment for parasites and vaccination

Vaccination and preventive treatment for parasites are both important husbandry practices which contribute to better pet health. Indeed, infectious diseases are one of the most frequent cause of mortality in pets, which can be prevented through vaccination ^[21]. In Portugal, legal requirement for rabbies vaccination in all dogs has successfully controled the disease, an important public health measure ^[22]. Similarly, frequency of preventive treatment for parasites should be adapted to the individual animal risk ^[23].

2.6. Regular veterinary check-ups and access to health care

One of the five freedoms of animal welfare is freedom from pain, injury, and disease. Frequent access to veterinary care is essential to assure pet health. However, veterinary services are considered expensive by 62.2% of pet owners in Portugal ^[2] and 62.0% in the USA, with 29% of pet owners in the USA being unable to afford pet health care ^[9]. The adoption of pet health insurance can improve access to veterinary services, with insured pets visiting the veterinary practice 30% more often ^[24].

2.7. Compliance with legal requirements and identification

Compliance with legal requirements, especially regarding identification (e.g. microchipping), can have important impacts on animal welfare. Legal requirements are often implemented to protect animals and people, by creating identification databases which can contribute to reducing animal abandonment or by improving public health, such as vaccination ^[2].

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