

AWAKENING TO THE IMPORTANCE OF RESPONSIBLE PET OWNERSHIP AND WELL-BEING FOR CHILDREN IN ELEMENTARY SCHOOL

CONSCIENTIZAÇÃO SOBRE A IMPORTÂNCIA DA POSSE RESPONSÁVEL DE ANIMAIS DE ESTIMAÇÃO E DO BEM-ESTAR DAS CRIANÇAS DO ENSINO FUNDAMENTAL

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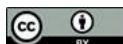
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Abstract

Community education in schools is essential for children to cultivate respect for animals from childhood. Playful pedagogical strategies have proven effective in engaging students in this process. This study aimed to evaluate the knowledge of children aged 8 to 11 years about responsible pet ownership and welfare in two schools in Marília/SP, one public (G1) and one private (G2). A questionnaire was applied before and after the presentation of a theatrical play about basic health care, urban overpopulation, and responsible pet ownership. The data were analyzed using LibreOffice Base, with the application of the chi-square test (questions 1–12 and 16–19) and the McNemar test (questions 13–15 and 20), considering a significance level of $p < 0.05$. When comparing G1 and G2, a significant difference was found only in the ownership and number of animals per student. There were variations in awareness levels, highlighting gaps in areas such as proper nutrition, collar use, preventive veterinary visits, vaccination, and neutering/spaying. The theatrical performance was effective in broadening understanding about neutering/spaying, its benefits, and the prevention of diseases and zoonoses. It is concluded that interactive educational actions can improve awareness and care for animals, although the continued need for campaigns to promote health and well-being, strengthening the bond between pet owners and their pets, is emphasized.

Keywords: Animals. Students. Awareness. Health Education. One Health.

Resumo

A educação comunitária nas escolas é essencial para que as crianças cultivem respeito aos animais desde a infância. Estratégias pedagógicas lúdicas mostram-se eficazes para envolver os alunos nesse processo. Este estudo teve como objetivo avaliar o conhecimento de crianças de 8 a 11 anos sobre guarda responsável e bem-estar de animais de companhia em duas escolas de Marília/SP, uma da rede pública (G1) e outra particular (G2). Aplicou-se um questionário antes e após a apresentação de uma peça teatral sobre cuidados básicos de saúde, superpopulação urbana e guarda responsável. Os dados foram analisados no LibreOffice Base, com aplicação do teste do qui-quadrado (questões 1–12 e 16–19) e do teste de McNemar (questões 13–15 e 20), considerando nível de significância de $p < 0,05$. Ao se comparar G1 e G2, verificou-se diferença significativa apenas na posse e no número de animais por aluno. Houve variações nos níveis de conscientização, evidenciando lacunas em temas como alimentação adequada, uso de coleira, visitas veterinárias preventivas, vacinação e castração. A peça teatral foi eficaz em ampliar o entendimento sobre castração, seus benefícios e a prevenção de doenças e zoonoses. Conclui-se que ações educativas interativas podem melhorar a conscientização e o cuidado com os animais, embora se ressalte a necessidade contínua de campanhas para promover saúde e bem-estar, fortalecendo o vínculo entre tutores e seus pets.

Palavras-chave: Animais. Alunos. Conscientização. Educação em Saúde. Saúde Única.

1 INTRODUCTION

The relationship between humans and companion animals encompasses complex practical and affective dimensions (Herzog, 2011), however, the guarantee of responsible custody and well-being is not always guaranteed. In this context, education plays a preponderant role, especially in the face of the scientific recognition of animal sentience, which attests to the ability of animals to experience pain and emotions (Fernandes *et al.*, 2021). The concept of animal welfare (BEA) integrates needs, freedoms, feelings, suffering, pain, anxiety, and health (Broom; Molento, 2004), requiring an approach that simultaneously considers physical, behavioral and mental aspects (Fraser, 1995). To ensure such conditions, it is imperative that owners provide adequate food and water, promote social contact, and ensure preventive veterinary care (Broom; Fraser, 2010).

On the other hand, misinformation and negligence often result in mistreatment and abandonment, conducts typified as a crime by Brazilian law (BRASIL, 1934; BRASIL, 1998). Such problems have multifactorial origins, including cultural, social and psychological aspects, often aggravated by impunity. In view of this scenario, Veterinary Medicine has progressively valued BEA, making it essential that students understand its basic principles for critical and ethical performance in the professional market (Molento, 2008).

Alongside vocational training, humanitarian education in schools and communities emerges as a key preventive strategy. The application of playful methodologies, such as games and role-plays, can stimulate students' creativity and active participation (Franchi; Gimenez, 2007), fostering awareness about responsible custody and BEA (Hawkins; Williams, 2017). Evidence indicates that elementary school children not only understand, but also disseminate information about animal care (Melson *et al.*, 2009), zoonoses and prevention (Jones *et al.*, 2008), with the potential to positively influence attitudes in adult life (Ascione, 1992; Hergovich *et al.*, 2002).

In view of the above, this work seeks to evaluate the knowledge of elementary school children about responsible guardianship, FAW and zoonoses, identifying strategies that enable their performance as multipliers of information in their respective communities.

2 THEORETICAL FRAMEWORK

The relationship between humans and animals has historically evolved from utilitarian purposes, clothing, food, work and assistance in hunting, to an eminently emotional bond. From this perspective, since prehistoric times, human existence has been intrinsically linked to that of animals, especially dogs, many of which are currently considered family members (Carrara *et al.*, 2017). This approach led to a significant increase in concern about the health and well-being of these companions (Santos *et al.*, 2016).

Despite the close coexistence, society still lacks guidance on proper management, which results in frequent cases of mistreatment and abandonment (Oliveira *et al.*, 2016). Impulsive acquisition, devoid of planning, favors the fragility of the affective bond and culminates in abandonment when the initial interest fades away. This scenario exposes the animals to situations of vulnerability, including life on the streets without shelter or care, in addition to uncontrolled reproduction (Santana; Oliveira, 2020). The presence of stray dogs is, therefore, a contemporary challenge that raises debates about well-being, environmental responsibility and public health. In addition to mistreatment, this population is associated with traffic accidents, aggression, and transmission of zoonoses (Rocha *et al.*, 2017). Disorderly population growth, combined with inadequate management, intensifies the risks of attacks, environmental contamination, and the spread of diseases that affect humans and animals (Lima; Luna, 2012).

In response to these questions, abandonment is typified as a crime of mistreatment in Decree No. 24,645/1934 (BRASIL, 1934) and in article 32 of Federal Law 9,605/98 (BRASIL, 1998). The legislation was reinforced by Law No. 14,064/2020 (Samson Law), which increased the penalties for mistreatment of dogs and cats, providing for imprisonment, fines, and prohibition of custody (BRASIL, 2020). However, the negligence and lack of knowledge of owners continue to perpetuate the problem (Almeida *et al.*, 2014). In order to mitigate the risks to public health, the Ministry of Health instituted Ordinance No. 1,138/2014, establishing guidelines for the prevention and control of zoonoses through educational actions and environmental management (BRASIL, 2014). In this context, responsible guardianship is configured as an institute of animal rights that guarantees health and well-being, preventing cruelty and

overpopulation (Santana; Oliveira, 2020). This practice involves offering adequate space, hygiene, food, disease prevention, vaccination, castration, social interaction and safety, including the collection of waste on public roads (Carvalho; Mayorga, 2016).

The promotion of BEA and responsible custody requires, concomitantly, educational actions. The school emerges as a strategic space for the dissemination of this information, especially among children and adolescents, who have high potential for learning and incorporation of concepts (Carvalho; Mayorga, 2016; Brandt *et al.*, 2022). Studies indicate that well-informed teachers and students act as multipliers of good practices, benefiting animal and public health (Uchoa *et al.*, 2004). Several studies show the effectiveness of educational programs, Daly and Suggs (2010) found a greater understanding of animal needs and the development of empathy in children participating in educational activities. Similarly, Almeida *et al.* (2013) identified gaps in tutors' knowledge about basic care, such as filtered water, toys, space, adequate food, vaccination, and waste collection.

The literature corroborates that environmental education aimed at responsible guardianship plays a fundamental role in mitigating abandonment and controlling the overpopulation of companion animals (Santana; Oliveira, 2020). In this sense, Paul and Serpell (1993) showed that educational programs implemented in primary schools are capable of significantly reducing dropout rates, while Ascione (1992) highlighted the positive impacts of this approach on the emotional and social development of children. Poresky *et al.* (1987) add that such benefits are amplified when students receive specific instruction on animal needs and welfare.

In this same perspective, Schlemper *et al.* (2019) emphasize humane education as a strategic instrument to instill ethical values and promote lasting behavioral changes in relation to the treatment of animals. Barbosa *et al.* (2014) reinforce that the school environment is a privileged space for discussions on FAW, especially when integrated with environmental and health education practices, also emphasizing the importance of the participation of the veterinarian as a trained agent to provide scientific support to the school community (Carvalho; Mayorga, 2016).

Finally, the adoption of playful pedagogical strategies, such as interactive activities, didactic games and dramatizations, demonstrates the potential to enhance the teaching-learning process, stimulating the interest of students and favoring the

participatory construction of knowledge (Franchi; Gimenez, 2007; Gil, 2013; Pinto; Tavares, 2010). Such practices consolidate the educational approach as a central axis for the promotion of responsible guardianship, BEA and the prevention of zoonoses, contributing to the formation of more conscious, critical and empathetic citizens in relation to animals and public health.

3 METHODOLOGY

The study was conducted in two elementary schools in the city of Marília/SP, one from the public network (Group 1 – G1) and the other from the private network (Group 2 – G2). Students aged between eight and eleven years old, regularly enrolled in the 3rd and 4th year of the afternoon period, participated in the research. The project was approved by the Research Ethics Committee of the University of Marília, under protocol No. 6,480,633, and had the consent of the institutions, the free and informed consent of the parents or guardians, and the consent of the participating minors.

Data collection was carried out through the application of a structured questionnaire, composed of 22 multiple-choice questions, elaborated in accessible language and compatible with the age group of the target audience. The instrument addressed topics related to responsible guardianship, FAW and zoonoses, including questions about animal ownership and species, form of acquisition, frequency of veterinary care, vaccination, ectoparasite control, walking habits and knowledge about castration and communicable diseases. For students who did not have pets, it was established that they answered only questions related to conceptual knowledge about castration and zoonoses, excluding those related to specific care of tutors.

Fifteen days after the initial application of the questionnaire, an educational intervention was carried out through the presentation of the theatrical play "Caring for a pet", prepared by the researchers together with students from the Veterinary Medicine course at the University of Marília, members of the Academic League of Veterinary Public Health. The narrative addressed, in a playful and contextualized way, basic health care with domestic animals, the impacts of overpopulation in the urban area, the benefits of castration for disease prevention and population control, and the concept of zoonoses,

with an emphasis on rabies as an example of a disease transmissible between animals and humans.

Immediately after the theatrical presentation, the same questionnaire was reapplied to the students, with the objective of evaluating the absorption of the contents covered and verifying the effectiveness of the pedagogical strategy employed. All procedures were conducted in a school environment, with the presence of the researchers and teachers responsible for the classes, ensuring adequate conditions for the completion of the instruments.

The data obtained were tabulated and stored in the Libre Office Base software. For statistical analysis, the chi-square test (χ^2) was used to compare the answers between groups G1 and G2 in the descriptive questions related to the profile of the participants and animal care (questions 01 to 12 and 16 to 19). To evaluate the effectiveness of the educational intervention, the McNemar test was applied to questions related to knowledge about castration and zoonoses (questions 13 to 15 and 20), comparing the answers obtained before and after the theatrical presentation within each group. In all analyses, a significance level of $p < 0.05$ was adopted.

4 RESULTS AND DISCUSSIONS

The research had the participation of 139 students, 112 from the public school system (G1) and 27 from the private network (G2), who demonstrated remarkable engagement during the application of the questionnaires and the presentation of the play, favoring a collaborative environment for data collection. The analysis revealed a distinct profile of pet ownership between the groups. In G1, 90% (101/112) of the students owned animals, a significantly higher proportion ($p < 0.05$) than the 71% (19/27) observed in G2. This finding is in line with previous studies that highlight the strong presence of animals in the Brazilian domestic environment, such as Carvalho and Mayorga (2016), who reported a rate of 79%, and Pinheiro Júnior *et al.* (2006).

The disparity between groups may reflect socioeconomic, cultural, or structural variations, suggesting that factors such as physical space, purchasing power, and family awareness influence the decision to own an animal. Considering that living with animals facilitates children's emotional and cognitive development, promoting socialization,

responsibility and self-esteem (Cerqueira, 2013; Minatoya *et al.*, 2021), these data suggest the need to reinforce educational actions on the benefits of responsible guardianship, especially in G2.

As for the predominant species, the dog was the most mentioned in both groups (G1: 58%; G2: 68%), reiterating data from the literature in which the dog performs functions that transcend companionship, justifying its prevalence in homes (Fuck *et al.*, 2006). The lower proportion of cats in G2 (8%) compared to G1 (22%) may reflect less cultural acceptance or lack of knowledge about the benefits of having them as pets (Rocha; Marisco, 2022).

Regarding the form of acquisition, adoption prevailed in G1 (40%), while purchase was more frequent in G2 (44%). This finding may indicate greater purchasing power in G2, but it also suggests the need to strengthen the culture of responsible adoption in all social strata, since adoption contributes to population control and reduces dropout.

Regarding sanitary care, 49% of G1 and 57% of G2 reported taking their animals regularly for vaccination. However, when asked specifically about rabies vaccination, 39% of G1 and 37% of G2 could not inform whether their animals were immunized. This gap is worrisome, given that regular veterinary care is essential for the control of zoonoses and for the promotion of public health (Paula *et al.*, 2018). The high percentage of uncertain responses about rabies vaccination, added to the frequency of animals receiving care only when sick (33% in both groups), indicates failures in preventive medicine and reinforces the need for educational programs that emphasize prevention, and not just curative treatment. Regarding the presence of ectoparasites, 55% of the students in G1 stated that they had already observed fleas or ticks in their animals, compared to 43% in G2. The higher proportion in G1 may be a consequence of differences in environmental management or regular prophylaxis, which can compromise both animal welfare and human health (Neto *et al.*, 2011). Ectoparasite control programs, including preventive treatments and education about signs of infestation, are essential to maintain the health of animals and prevent diseases transmitted by these vectors.

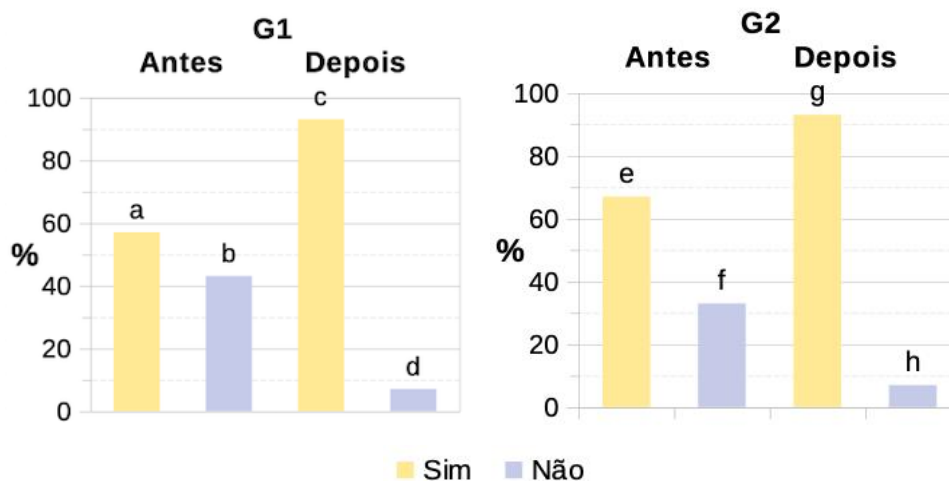
The educational intervention demonstrated significant effectiveness in the assimilation of concepts. Regarding knowledge of the castration procedure, in G1, comprehension increased from 57% to 93% after the theatrical presentation; in G2, the evolution was from 67% to 93% ($p < 0.05$) (Figure 01). Regarding the benefits of

castration in the prevention of diseases, knowledge in G1 increased from 24% to 68%, and in G2, from 30% to 81% ($p < 0.05$). These results show that interactive methods, such as plays, are superior to the passive transmission of information to this target audience, corroborating Cruz *et al.* (2016), who highlight playful activities as facilitators of the teaching-learning process. A substantial improvement in the understanding of the benefits of castration can positively impact population control in the long term, since aware children tend to influence family and community decisions (Santana; Oliveira, 2020).

The theme of zoonoses presented the greatest initial deficit of knowledge. Before the intervention, only 5% of G1 and 4% of G2 demonstrated that they understood the concept. After the play, there was a significant increase to 49% in G1 and 63% in G2 ($p < 0.05$) (Figure 02). The initial lack of knowledge about zoonoses (greater than 95% of the students) warns of the health risk, since education about diseases transmitted between animals and humans is fundamental for the protection of public health (Tome *et al.*, 2005). The effectiveness of the playful methodology in the appropriation of this concept of public health reinforces the importance of creative pedagogical strategies to disseminate complex information in a way that is accessible to children.

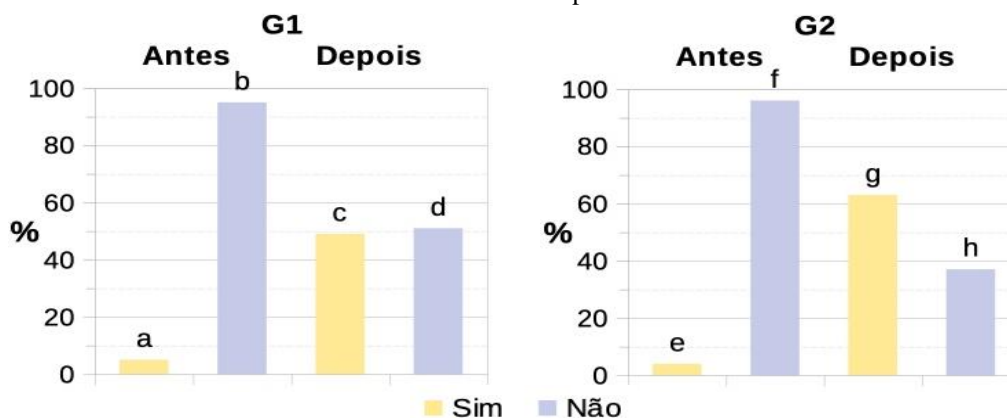
Finally, the results suggest that brief but well-structured and contextualized educational interventions can generate lasting impacts on child awareness. The integration between universities, schools and communities, through extension actions, represents a promising way to promote animal welfare and public health, aligning with the guidelines of One Health and the contemporary demands of Veterinary Medicine. Humane education instills values that shape individual choices, promoting significant behavioral change in relation to the treatment of animals (Schlemper *et al.*, 2019), and the school is configured as a strategic space for the dissemination of responsible practices, forming more critical and empathetic citizens.

Figure 01. Proportion of knowledge of the public school (G1) and private school (G2) groups in Marília/SP, about the castration procedure, before and after the theatrical presentation. Lowercase letters that are different from each other represent a statistical difference, within each group, between the first and second questionnaires, using the McNemar test at $p < 0.05$.



Source: Prepared by the authors, 2026

Figure 02. Proportion of before and after theater on the knowledge of zoonosis of the public school (G1) and private (G2) groups in Marília/SP. Lowercase letters that are different from each other represent a statistical difference, within each group, between the first and second questionnaires, according to the McNemar test at $p < 0.05$.



Source: Prepared by the authors

5 CONCLUSION

The results demonstrate that, although there is a strong affective bond between children and their pets, there are still significant gaps in knowledge about responsible custody practices, especially regarding preventive medicine, ectoparasite control and the concept of zoonoses. The educational intervention through a theatrical play proved to be effective in significantly increasing the understanding of castration and zoonoses in both

groups, validating the use of playful strategies in humanitarian education. It is concluded that brief and contextualized educational actions, carried out in the school environment, constitute a promising tool to train multipliers of information on animal welfare and public health, in alignment with the principles of One Health.

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