

PERCEPTION OF CHILDREN ABOUT THEIR FOOD AND HEALTH AND THEIR PETS

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Abstract: Introduction: Obesity is a disease that has been approached as a danger to men and pets due to the growth of cases. **Objective-** Study proposed to capture perception of children from schools in Curitiba on obesity and sedentary lifestyle, in themselves and their pets. **Methodology** - Children's perception was collected through a questionnaire answered by them. 332 children between 6 and 16 years old participated. **Results and discussion** - Most participating children have pets at home. Regarding children's diet, most eat mixed food, as well as their pets. As for physical activities, it is noticed that most students practice some physical activity with or without the pet at least 3 times a week. **Conclusion-** The main cause of obesity in pets is lack of knowledge about the correct way of nutritional management, by offering food from tutors to pets, and the main way to combat obesity in pets is education about problems that obesity can cause in animals. **Keywords:** Obesity. Sedentary lifestyle. Pets. Kids. Healthy eating.

INTRODUCTION

Obesity is recognized as a world-wide problem, it has always been approached as a danger to human medicine and is now being researched when referring to animals. Obesity in dogs is becoming a major problem that worries veterinarians and tutors, to understand about it, it is necessary to understand that it is a consequence of different factors such as genetic predisposition, reproductive management and especially the food offered by the tutor that corresponds to 97 % of cases. The comorbidities related to this disease, such as joint diseases, diabetes and cardiorespiratory diseases, are extremely harmful to the animal's quality of life (VIDAL and MAIA, 2021).

Data from the Ministry of Health indicate that 3 out of 10 children between 5 and 9 years old are overweight in Brazil (BRASIL, 2019). These data have worsened with the corona virus pandemic due to the isolation and reduction of these children's physical activities. In animals, the situation is not very different. Obesity in dogs and cats is already considered the most prevalent nutritional disorder in the routine of veterinary clinics and hospitals (CLINE and MURPHY, 2019). In the USA, a survey revealed that 56% of dogs and 60% of cats are overweight (APOP, 2018). In Brazil, research revealed a prevalence of 40.5% of overweight and obese dogs (PORSANI et al., 2020).

Good food determines the quality of life of an animal, where this food must meet the nutritional needs of each individual. When this is unbalanced, it favors the appearance of different physiological disorders, generating different clinical pathologies in these individuals, these problems range from malnutrition to obesity. Overweight is characterized by an increase of 15% of the ideal weight and obesity above this range, it occurs due to the excess of energy consumed by the animal and its low use, raising the importance of, in addition to an adequate nutritional management, the need to increase the energy expenditure in animals (SILVA, 2017).

When it comes to obesity, prevention is always the best form of treatment. Dogs and cats must always be fed correctly, avoiding foods high in fat, snacks, sweets or leftovers from human meals to the animal, and offering the ideal portion of food for each animal, avoiding caloric energy excesses, and ensuring an adequate diet that all necessary nutrients are being provided to ensure the daily nutrition of each animal and walks must be established as a daily routine without causing stress to the animal (SILVA et al., 2017).

Thus, the purpose of this work was to capture the perception of children from schools in the city of Curitiba (PR) on the subject of obesity and sedentary lifestyle, in their pets and in themselves.

METHODOLOGY

The present study had the participation of 332 children between 6 and 16 years old, from 3 schools in the city of Curitiba, Paraná, being a municipal school (Escola Municipal São Mateus do Sul), a state school (Colégio Estadual Professor João Loyola) and a private school (Logus School). The response obtained from students from different schools was analyzed separately in order to compare possible different results according to their economic class.

For the data collection of this study, a questionnaire was applied for the children to answer questions. Through the questionnaire answered, the following information was raised:

- Child's age;
- Number of people living in the house;
- If the child has pets;
- If yes, how many;
- Perception of the child regarding their food;
- Children's perception of their pet's diet;
- Perception of the child regarding the practice of physical activities;
- Children's perception of their pet's physical activities.

Analysis of the collected data was carried out using a table-type tool of data frequency and synthesis measures by percentage. This way, clarity was obtained in their interpretation.

RESULTS AND DISCUSSION

The research was carried out with 332 children, 185 from Escola Municipal São Mateus do Sul (A), 93 from Colégio Estadual Professor João Loyola (B) and 54 from Escola Logus (C). In school A, the age range of students varied between 7 and 11 years old, in school B, between 8 and 16 years old, and in school C, between 6 and 10 years old. Of the 185 children in school A, 150 (81.08%) have pets at home. Of the 93 children in school B, 78 (83.87%) have pets at home. Of the 54 children in school C, 41 (75.93%) have pets at home (Table 1). These data are very similar to that found by Brandt et al. (2021) in their research. They also worked with a survey of children's perception of pet care. In this research, they found that 79.04% of the students, out of a total of 283, had pets at home.

Soon after the initial data, the children were asked about their own food and the food of their pet. With regard to their own diet, the children were asked whether it was healthy, unhealthy or mixed (healthy times and unhealthy times). As a healthy diet, items such as fruits, vegetables, cereals, rice, beans, meat, etc. were included in the questionnaire. As an unhealthy diet, items such as sweets (candies, chocolates, cookies), fried foods, pizza, soft drinks were included. Regarding the feeding of the pets, the children were asked if they were fed only animal feed and specific foods (bones, cookies), if they were fed with human food, or if the diet was mixed (human food and pet food).

Among students from school A, 29 (15.67%) responded that they always eat healthy, and 156 (84.33%) eat mixed food, that is, they eat both healthy and unhealthy foods. Among students from school B, 30 (32.26%) answered that they always eat healthy, 62 (66.66%) eat mixed food and 1 (1.08%) did not know how to answer. Among

School	Students age (years)	N	%	The person has a Pet	
				Yes	Not
A	7	27	14,6		
	8	58	31,35		
	9	62	33,51		
	10	36	19,45	150 (81,08%)	35 (18,92%)
	11	11	1,08		
	Sub-total	185	100%		
B	8	1	1,07%		
	9	-	-		
	10	16	17,20%		
	11	20	21,50%	78 (83,87%)	15 (16,13%)
	12	7	7,52%		
	Over 12	49	52,68%		
Sub-total	93	100%			
C	6	5	9,25%		
	7	22	40,74%		
	8	11	20,37%		
	9	10	18,5%	41 (75,93%)	13 (24,07%)
	10	6	11,11%		
	Sub-total	54	100%		
Total	332	100%			

Table 1. Total number of students participating in the survey at schools A, B and C, broken down by age and whether or not they have pets at home.

the students from school C, 4 (7.41%) answered that they always eat healthy, 49 (90.74%) eat mixed food and 1 (1.85%) did not know how to answer.

Regarding the feeding of pets, of the students from school A, 61 (40.66%) answered that pets only feed on food exclusively for animals, 14 (9.34%) feed on human food, 71 (47, 34%) eat mixed food (animal food and human food), and 4 (2.66%) were unable to inform. Among students from school B, 57 (73.07%) answered that pets only eat food exclusively for animals, 2 (2.56%) eat human food and 19 (24.37%) eat in a different way.

mixed. Among the students from school C, 22 (53.66%) answered that pets only eat food exclusively for animals, 1 (2.44%) eat human food and 18 (43.9%) eat in a different way. mixed (Table 2). In research by Brandt et al. (2021), 45.94% of the pets are fed with leftover food and 54.06% with specific pet food.

The supply of human food for animals has become one of the main factors that lead to obesity in these animals. Feed is recognized as an adequate method of animal feeding because it is balanced with adequate nutrients and a specific amount of calories for each stage of the animal's life.

School	Child food	Number of students	Pet food	Number of students
A	Healthy	29 (15,67%)	Specific foods	61 (40,66%)
	Mixed	156 (84,33%)	Human foods	14 (9,34%)
	I didn't know how to inform	-	Mixed	71 (47,34)
			I didn't know how to inform	4 (2,66%)
B	Healthy	30 (32,26%)	Specific foods	57 (73,07%)
	Mixed	62 (66,66%)	Human foods	2 (2,56%)
	I didn't know how to inform	1 (1,08%)	Mixed	19 (24,37%)
			I didn't know how to inform	-
C	Healthy	4 (7,41%)	Specific foods	22 (53,66%)
	Mixed	49 (90,74%)	Human foods	1 (2,44%)
	I didn't know how to inform	1 (1,85%)	Mixed	18 (43,90%)
			I didn't know how to inform	-

Table 2. Children's perception of their own food and pet food.

It was possible to identify that students under 10 years old (school A and C) are the ones who behave in a less nutritionally healthy way, and students from school C fit into a social class with greater access to industrialized and low-value foods nutritional. Since the majority of students from school B, over 12 years old, are the ones who eat healthier, they are also more aware of the specific diet for their pets.

After answering questions related to food, it was the turn of the students to answer about the practice of physical activities. They were asked if they practice any physical activity and how often. And, with regard to pets, if they also practice some kind of physical activity and how often. As the students practice physical activity, items such as playing soccer, basketball, cycling, dancing, etc. were included in the questionnaire. As a practice of physical activity for pets, items were included in the questionnaire such as walking on the street, walking in the park, playing with balls, or toys, indoors and outdoors.

Regarding the practice of physical activity by students, at school A, 23 students

(12.43%) responded that they have the habit of practicing some type of physical activity once a week, 30 students (16.21%) twice a week, 24 students (12.97%) three times a week, 59 students (31.90%) more than three times a week, 10 students (5.40%) do not practice any type of physical activity and 39 students (21.09%) were unable to answer. In school B, 9 students (9.67%) answered that they have the habit of practicing some kind of physical activity once a week, 16 students (17.20%) twice a week, 14 students (15.05%) three times a week, 28 students (30.10%) more than three times a week, 21 students (22.60%) do not practice any type of physical activity and 5 students (5.38%) did not know how to answer. At school C, 7 students (13%) answered that they have the habit of practicing some kind of physical activity once a week, 21 students (38.88%) twice a week, 5 students (9.25%) three times a week, 12 students (22.22%) more than three times a week, 2 students (3.70%) do not practice any type of physical activity and 7 students (12.95%) did not know how to answer.

Regarding the practice of physical activities by pets, at school A 16 students (10.67%) responded that the pet practices some type of physical activity once a week, 17 students (11.34%) twice a week, 10 students (6.66%) three times a week, 56 students (37.33%) more than three times a week, 27 students (18%) answered that pet does not practice any type of physical activity and 24 students (16%) could not answer. At school B, 7 students (8.98%) answered that the pet practices some kind of physical activity once a week, 15 students (19.24%) twice a week, 12 students (15.38%) three times

a week week, 27 students (34.61%) more than three times a week, 1 student (1.28%) answered that pet does not practice any type of physical activity and 16 students (20.51%) did not know how to answer. In school C, 6 students (14.63%) answered that the pet practices some kind of physical activity once a week, 10 students (24.4%) twice a week, 2 students (4.87%) three times a week week, 15 students (36.60%) more than three times a week, 2 students (4.87%) answered that pet does not practice any type of physical activity and 6 students (14.63%) did not know how to answer (Table 3).

School	Child's physical activity	Number of students	pet physical activity	Number of students
A	1 times in the week	23 (12,43%)	1 times in the week	16 (10,67%)
	2 times in the week	30 (16,21%)	2 times in the week	17 (11,34%)
	3 times in the week	24 (12,97%)	3 times in the week	10 (6,66%)
	Over 3 times	59 (31,90%)	Over 3 times	56 (37,33%)
	The person does not practice	10 (5,40%)	The person does not practice	27 (18%)
	The person did not know	39 (21,09%)	The person did not know	24 (16%)
B	1 times in the week	9 (9,67%)	1 times in the week	7 (8,98%)
	2 times in the week	16 (17,20%)	2 times in the week	15 (19,24%)
	3 times in the week	14 (15,05%)	3 times in the week	12 (15,38%)
	Over 3 times	28 (30,10%)	Over 3 times	27 (34,61%)
	The person does not practice	21 (22,60%)	The person does not practice	1 (1,28%)
	The person did not know	5 (5,38%)	The person did not know	16 (20,51%)
C	1 times in the week	7 (13%)	1 times in the week	6 (14,63%)
	2 times in the week	21 (38,88%)	2 times in the week	10 (24,4%)
	3 times in the week	5 (9,25%)	3 times in the week	2 (4,87%)
	Over 3 times	12 (22,22%)	Over 3 times	15 (36,6%)
	The person does not practice	2 (3,7%)	The person does not practice	2 (4,87%)
	The person did not know	7 (12,95%)	The person did not know	6 (14,63%)

Table 3. Practice of physical activity and frequency by students and their pets.

According to the World Health Organization Guidelines (2020), children and adolescents must practice at least 1 hour per day of moderate physical activity. In the present research, it is noticed that children practice physical activities, mostly at least 3 times a week, but even to reach the WHO goal, more information and encouragement to this practice is needed.

FINAL CONSIDERATIONS

The research revealed a socioeconomic interference with regard to the eating and physical habits of students from participating schools. It was observed that the age range of the students significantly interfered with the

research results. As the main cause of obesity, nutritional management by offering food from tutors to pets, characterizing a lack of knowledge about the correct way of doing this and concluding that the main way to combat obesity in pets is education and awareness about problems that obesity can cause in animals.

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REFERENCES

APOP, Association of Pet Obesity Prevention. U. S. **Pet Obesity Rates Plateau and Nutritional Confusion Grows**. Disponível em: <https://petobesityprevention.org/2018/>. Acessado em 10 de agosto de 2022.

BRANDT, J.P.; DEBASTIANI, V.S.; RIBEIRO, D.D.M.; TRINDADE, D.M.; SAN'ANNA, S.; CASTAGNARA, D.D. **Percepção de crianças de Uruguaiana (RS) sobre zoonoses e posse responsável de animais**. RECISATEC – REVISTA CIENTÍFICA SAÚDE E TECNOLOGIA ISSN 2763-8405, v.1, n.2, 2021. <https://doi.org/10.53612/recisatec.v1i2.14>

BRASIL, **Atlas da obesidade no Brasil**. Brasília, DF, 2019. Ministério da Saúde.

CLINE, Martha G.; MURPHY, Maryanne (Ed.). **Obesity in the Dog and Cat**. 2019.

OMS, 2020. Diretrizes da OMS para atividade física e comportamento sedentário. ISBN 978-65-00-15021-6. Disponível em: <https://apps.who.int/iris/bitstream/handle/10665/337001/9789240014886-por.pdf>. Acesso em 11 Ago de 2022.

SILVA, I. M. R. **Importância do manejo alimentar adequado e levantamento diagnóstico de obesidade em cães atendidos no hospital veterinário universitário da UEMA**. Jun 2017. Disponível em: <https://repositorio.uema.br/handle/123456789/1054>. Acesso em: 30 Jul. de 2022.

SILVA, S. F. et al. **Obesidade canina: Revisão**. PUBVET- Medicina veterinária e zootecnia. v. 11 No. 04 p. 313-423 Abr. 2017. Disponível em: <https://www.pubvet.com.br/artigo/3699/obesidade-canina-revisatildeo#:~:text=A%20obesidade%20%C3%A9%20uma%20condi%C3%A7%C3%A3o,e%20o%20bem%20Destar%20animal>. Acesso em: 07 Ago. 2022.

PORSANI, M. Y. H., F.A., TEIXEIRA; V.V., OLIVEIRA; R.A.,DIAS; A.J., GERMAN; M.A.,BRUNETO. **Prevalence of canine obesity in the city of São Paulo, Brazil**. Scientific Reports, v. 10, n. 1, p. 1-15, 2020.

VIDAL, B. D. B. L. G; MAIA, C de F. **Prevalência da obesidade em cães domiciliados no Plano Piloto-m DF**. 2021. Disponível em: <https://www.uhumanas.uniceub.br/pic/article/view/8323/5147>. Acesso em: 01 ago. 2022.