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Canistherapy and its application to the teaching process at a grammar school

The positive effect of animal on humans has been known since the beginning of the domestication of animals. With the help of animals, it is possible to influence a wide range of human physical and mental problems, which are caused especially by the modern way of life and by the disconnexion from nature. This paper presents an overview of one of the forms of zootherapy – canistherapy, which exploits the positive influence of dogs on both physical and mental health of humans. Since the dog is the oldest domesticated animal, during its cohabitation with man, it has learned to read the body language of humans and is also able to feel men's conditions. Canistherapy is currently slowly getting into the public awareness; however, in Slovakia, this process is hampered mainly due to the lack of information and scientific research but also because of the lack of willingness or distrust of its application in practice.

This work compares the changes in the behaviour and level of knowledge of 12 to 13 year-old students at a grammar school in Slovakia after the implementation of the canistherapy into the teaching process. Canistherapy sessions were focused on the development and changes in social behaviour, emotional expressions, and the knowledge of the students. These areas were continuously monitored and finally evaluated by questionnaires and interviews.

We analysed the effect of Animal Assisted Education (AAE) form of canistherapy, which helped us to establish the dog's positive impact on the mental conditions of 12 to 13 year-old students. The experimental group (class A) where canistherapy was applied consisted of 28 students (Fig. 1A), while the control group (class B), where the training was conducted without the presence of dogs, consisted of 27 students.

Canistherapy in the selected class was realised by canistherapist Mgr. Martina Michalková with her four therapy dogs, Eila, a 15-year-old West White Highland Terrier (WWHT), Kloe, a 3-year-old WWHT breed, Keri, an 11-year-old WWHT breed, and Elfin, a 10-year-old Samoyed female. All dogs are certified and have previously completed regular canistherapeutic trials (Fig. 1B).



Fig. 1. The students of the experimental class A with the therapy dogs (A); Martina Michalková and her therapy dogs from a civic association “*The meaning of life*” (B) (Photo. T. Čontofalský)

Tab. 1. Overview of the topics that have been taught during the research in class A

Month	Topics
September	basic information about civic association " <i>The meaning of life</i> " establishment of the rules during a work with animlas information about choosing and trainga a dog
October	vital expressions and animal behaviour
November	animal reproduction
January	Canistherapy
February	welfare of the dogs
March	protection of the wildlife animals
April	revision of the knowledge and checking the feedback

Tab. 2. The comparison of the acquired knowledge from biology of class A (with canistherapy) and class B (control group) during the analysed research period

No.	Question/order	Answer	Class A n = 25	Class B n = 24
1.	Write examples of inappropriate human behavior towards the dogs	3 examples and more	25	5
		3 examples and more	25	5
		2 examples and less	0	19
2.	Which protected animal is directly threatened by thermal insulation of panel houses?	correct	25	7
		incorrect	0	17
3.	How can dogs communicate with each other?	2 examples and more	25	10
		1 example	0	14
4.	Have you heard about the concept of canistherapy? If yes, briefly characterise it.	yes, I have	25	14
		no, I have not	0	10
5.	Which senses are well developed in carnivores?	correct	24	20
		incorrect	1	4
6.	Who has more bones in the body – a dog or a man?	correct	24	20
		incorrect	0	4
7.	Write at least 3 examples of protected animals in Slovakia	3 examples and more	22	16
		2 examples and less	3	8
8.	What types of behavior can we observe in mammals?	3 examples and more	20	16
		2 examples and less	5	8
9.	After how many weeks can be a puppy taken from his mother?	correct	18	10
		incorrect	7	14
10.	What is the difference in a set of teeth between the herbivores and carnivores?	correct	18	10
		incorrect	7	14

The research was conducted twice a month from September 2015 to April 2016. After consulting with the biology teacher, the topics that were taught in class A were covered within the curriculum for the 7th year of a grammar school (Tab. 1). The initial lessons were focused on basic information about the civic association "*The meaning of life*", the canistherapeutical team and its work. To compare the acquired knowledge from the biology of class A and class B during the research period, a short test consist-

ing of 10 questions was used (Tab. 2). A total of 25 students participated in class A and 24 students in class B. The content of the lesson was the same in both classes, but the method of presentation was different. While in class B there was a classic explanation, in class A there was an experience learning in which the students were actively involved.

To determine the impact of canistherapy on class A students, a questionnaire method was used which consisted of five open-ended questions and 23 students attended it (Tab. 3). The aim was to find out the subjective attitudes of students and their perception of canistherapy. To demonstrate the impact of canistherapy on inadapted students, we interviewed the biology teacher and the canistherapist.

The questionnaire showed that the experimental group (class A) had different results than the control group (class B). The exact numbers of the answers can be found in table 2. However, the positive influence of dogs was not only didactic but also psychological. Evidence is provided by questionnaires filled in by students from class A and by the teacher, which clearly showed the positive effect of canistherapy on the psychic aspect of the students. A summary of the students' answers can be found in table 3. The students stated that, thanks to the lessons with the dogs, they were able to better remember the new information (44%). Learning with dogs helped the students to realise how to behave correctly to animals and nature (35%), and it also brought new experiences and knowledge (48%). They also understood and memorised the curriculum (17%). All the students said that they would very much like to continue with this form of teaching. They were most interested in the following topics: animal care (especially information about the bears and bats – 31%), canistherapy (demonstration of positioning – 25%) (Fig. 2A, B), animal reproduction (21%) and others.

In the questionnaire, the teacher stated that her opinion on the usage of the dogs in the educational process is definitely positive. At the beginning of the meetings, the teacher was afraid that students would be disrespectful and undisciplined when the dogs would suddenly appear in the classroom. However, the result was opposite. During the meetings, she watched her students closely, and she was very surprised that they were much quieter, more impressed with the curriculum, and engaged in the discussions and activities, even though they had to be forced into such matters before. According to the teacher, a great contribution of these lessons was the arousal of empathy, of interest in nature, and the possibility of physical contact with the animal (Tab. 3). In her opinion, the physical contact is absent among today's youth. Since the parents are often busy, their absence is compensated by gifts, and not by real contact and time spent with their children. The meetings with animals at least partially replaced the absence of such contact. The dog's presence had both direct and indirect effects, which means that children were directly involved when dogs were present at the lesson but also when dogs were not there, because the students were looking forward to the next meeting and were discussing their experiences with them.

Tab. 3. The impact of canistherapy on students of class A

No.	Question/order	Answer	
		Type	[%] n = 23
1.	How do you perceive the fact that the dogs were making you a company during the lesson?	It helped me overcome my own fear of dogs	4
		I liked it, it was a nice dulcification of the day	17
		The meetings were very reassuring	35
		Using the dogs during the lesson helped me to better remember the new information	44
2.	What has the learning with the dogs given to you?	New experiences and knowledge	35
		Finding out how to behave right to animals and nature	48
		Better understanding and memorizing of the curriculum	17
4.	Would you like the dogs to continue to be part of the class?	The answers of the students showed that all of them would very much like to continue with this form of teaching	100
5.	Write in brief what you learned during these lessons	Animal welfare (especially information about the bears and bats)	31
		Canistherapy (and demonstration of positioning)	25
		Animal reproduction	21
		How do animals behave and how we should treat them	16
		The students learned that the foreknowledge of nature is very important	7

During the meetings, the teacher has informed us about an inappropriate student in the experimental class (class A). This student has no proper diagnosis from an expert because of lack of willingness from his parents to pursue the matter, and that is why our results are based only on observations. We decided to find out whether the sessions will be beneficial for him and will improve his performance during classes. His behaviour was carefully monitored during the sessions and at the end evaluated.

Before the meetings, the student was very sensitive and moody. He was usually absent-minded and unable to concentrate for a longer time. It was necessary to lecture and warn him and, as a consequence, the teaching process was slowed down for the whole classroom. The results of both teachers and canistherapists evaluations showed that there was a marked improvement in his behaviour before and during the canistherapy. In spite of the initial nervousness, the student quickly established a very strong relationship with the dogs. He was in contact with them constantly. From the time they came until they left the classroom, he was holding, hugging, and caressing them. He engaged in the activities and, after the end of the lesson, he continued asking the canistherapist for her personal experiences with dogs. Suddenly, he was able to focus more on the curriculum as well as on the overall happenings in the classroom.

His improvement has been beneficial for the whole classroom, so the achieved results could be evaluated as positive.

One of the intentions of the research was to verify how the presence of dogs influences the ability of students to better memorise the curriculum. It was about targeted contacts of students with the animals, particularly focusing on the modification of education and upbringing. The animal itself played the role of some kind of supportive medium which motivates to engage in various educational activities (Velemínský, 2007). De Anda (2001) points out the fact that special education in the form of a visitor program offers students, among other things, the possibility of a regular contact with another model of an adult, which can lead to many educational, social, and emotional benefits for students. Levinson (1997) claims that the dog does not act as a co-therapist during canistherapeutic activities but as a therapist itself that is in good agreement with our observations. This creates a strong bond between the client and the canistherapeutical dog, which is based on emotions, understanding, and help, whether emotional or physical. According to Tichá (2002), dogs in the canistherapy process can be directly involved in the activities, being a motivational factor. For some students, attending a school represents a significant emotional stress, which can be demonstrated not only in their behaviour, but also in their ability to receive and process the curriculum. For this reason, a dog can serve as a suitable medium for releasing and eliminating stress.

We are inclined to the opinion of Tichá (2002), because, during the canistherapeutic sessions, we observed that the dog was a very strong motivating element for fulfilling the activities and a great motivation for learning. It was proved by the results of the comparative sciential test between classes A and B, where class A students overtopped their class B classmates with higher number of the correct answers (Tab. 2).

Students declared themselves that the lessons with dogs were much more interesting for them than typical lessons. That is why we assumed better results in the test were caused by students' higher motivation in the teaching process. As Piper (2014) claims, students are often stressed by teachers, which may be reflected in their learning achievements. However, in the presence of a dog, this stress disappears, and it is shown that dogs can help the students to improve their knowledge by up to two degrees.

In the second part of the research, we dealt with the influence of canistherapy on the mental state of the students. It is possible to assess that the results from the research during canistherapeutic meetings and from the questionnaires confirmed the results of other experts dealing with canistherapy. Wilson (1993) discusses the importance of a bond between man and animal, which is natural from historical and biological points of view, but it is often forgotten these days. The author emphasizes that contact with animals enriches us and helps us to develop, and as children are naturally fascinated by nature, and contact with the animal is a good way to raise their interest. Sitková



Fig. 2. Demonstration of the positioning (A); demonstration of a work and communication with the canisterapeutic dog (B) (Photo. Z. Frajtova)

(2010) documented the progress made by zootherapists during their practice. As one of the greatest advances, she clearly marked the overcoming of fear of the animals, the improved communication skills, and the total relaxation of children. In general, all the components of children's personality improved, and they were able to keep attention longer. Our results were in good agreement with these findings, as the canisotherapy helped several students to overcome anxiety and fear of dogs. According to the biology teacher's assessment, who is also the class teacher of class A, there was an obvious development of the social behaviour, emotions, communication skills, and knowledge of all the students. Students whom she usually sees as withdrawn and quiet were suddenly communicative and livelier than ever during the lessons with the dogs assistance. The presence of a dog in the class automatically decreases the shyness that could be felt by the students against the canisotherapist in the absence of the canisotherapeutical dogs (Ellis et al., 2001). It is natural that children are reserved in a presence of an unknown person. Thus, it was a great surprise to see how friendly and immediate the students behave to the canisotherapist. We attribute that to the presence of the dogs in the classroom.

The third part of our survey provides information about the impact of animal assisted education on an inadaptable student. There were visible changes in the behaviour of the inadaptable student, manifested in improved communication skills, longer concentration, calmer behaviour, and interest in the classroom happening. A dog can help to the inadaptable students to improve their speaking skills, memory or vocabulary (Kollus, 1999). According to Hilbertová (2009), the presence of an animal helps to link up the immediate contact between the teacher and the child. Moreover, it can create the atmosphere of confidence and helps to reduce the student's inappropriate behaviour. Students who are often negativist and passive are influenced by canisotherapy by improving interhuman relationships, reducing aggression, and developing communication skills (Odendaal, 2007). Frank (2001) discusses the fact that teachers have strict rules on physical contact with students. However, this contact may be needed from time to time. For this reason, the presence of a dog during the teaching process is beneficial, because the child can caress and hug the dog. Our research confirmed that canisotherapy is an effective way to strengthen the boy's mental state in the conditions of the school environment, to dismantle sadness in the short term, to help improving concentration, to damp problematic behaviour, to raise interest in the lesson, and to improve interhuman relationships.

Conclusion

The work was focused on canisotherapy and its usage at school facilities. The main aim was to find out and describe the influence of education with assistance dogs on students of a selected class of a grammar school through direct observation, question-

naires, and test. A sciential test that compared the knowledge of the experimental class A (with canistherapy) and the control class B (without canistherapy) students at the end of the research period confirmed the presumption that canistherapeutical sessions positively influenced the memorisation of curriculum and also acted as a motivation for students to learn. Questionnaires filled by class A students and their biology teacher clearly demonstrated the positive effect of canistherapy on the mental aspect of students. After the end of the canistherapeutical sessions, a positive change of behaviour occurred in the students. They were quieter, more active, and more focused on work tasks, and some individuals were able to overcome their fear of dogs. Observing class A students revealed that the canistherapeutical sessions were important, not only for the group, but also for individuals. In the behaviour of the inadaptible student, there were visible changes, such as better communication, longer concentration, calmer behaviour, and interest in classroom happening. Subsequent analysis of the results confirmed that canistherapy has a positive impact on individuals and is a valuable supportive method for improving social behaviour, mental health, and communication abilities in children. However, canistherapy is inhibited from increased development and wider use because of a non-existent uniform methodology for canistherapy performance, the lack of professional literature, outdated legislation, and mistrust in application in practice. We believe that the obtained results and findings could act as a tool for other school institutions which are considering canistherapeutical sessions.

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Canisterapia i jej zastosowanie w procesie nauczania w szkole średniej

Streszczenie

Analizy koncentrują się na zastosowaniu i wdrożeniu canisterapii (kynoterapii) w procesie nauczania w szkole średniej. Głównym celem badań było porównanie wpływu edukacji uczniów z udziałem i bez udziału psów. Narzędziami badawczymi były ankiety i test oraz bezpośrednia obserwacja. Populacja badawcza obejmowała uczniów w wieku 12–13 lat. Porównywano efekt terapii między dwiema grupami uczniów: eksperymentalną objętą canisterapią (klasa A, 28 uczniów), kontrolną (klasa B, 27 uczniów), bez canisterapii. Badania przeprowadzono dwa razy w okresie od września 2015 roku do kwietnia 2016 roku. Ankiety wykazały, że sesje canisterapii pozytywnie wpłynęły na zapamiętywanie programu nauczania, a także były motywacją do nauki. Ponadto zauważalny był pozytywny wpływ canisterapii na mentalną stronę uczniów. Uczniowie byli bardziej aktywni i skoncentrowani na zadaniach dydaktycznych. Niektórzy uczniowie przezwyciężyli również wrodzony strach przed psami. Bezpośrednie obserwacje uczniów na zajęciach wykazały, że sesje z użyciem psów były ważne nie tylko dla całej grupy, ale także dla poszczególnych osób.

Key words: canistherapy, animaltherapy, Animal Assisted Education, teaching process, grammar school

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