Pet Companionship for Learning and Academic Anxiety in Middle School Students: The Effect of Pet Attachment on Academic Anxiety

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Abstract. With the increasing demands of the society on middle school students and the continuous reform of the examination system, middle school students are facing great learning pressure and challenges. As a result, academic anxiety has gradually become one of the common psychological problems among middle school students. Meanwhile, with the development of society, increasing families are willing to accept pets as one of their family members. This study investigated whether the attachment relationship between middle school students and their pets can alleviate their academic anxiety through a case study of middle school students with pet companionship. To this end, this study conducted semi-structured interviews among 6 middle school students aged 14 to 16, and analyzed the interview results to verify whether pet companionship can alleviate middle school students' academic anxiety. The study results show that pet companionship can have a significantly positive effect on reduced academic anxiety when middle school students face large-volume learning tasks, but this effect shows no significance when adolescents face difficult learning tasks. Limitations of pet companionship are also discussed.

Keywords: Interviews; Pet attachment; Middle school students; Academic anxiety; Emotional support animals.

1. Introduction

1.1. Literature review

Currently, society's increasing demand for talents and the continuous reform of the examination system have posed great challenges to middle school students who are in the midst of physical and mental development. Psychological problems, such as anxiety and depression, have gradually become one of the most common psychological problems among middle school students. Statistics shows that in 2022, about 14.8 percent of Chinese adolescents are at the risk of depression in varying degrees. Depression can bring great pain to adolescents and cause family burden, and it is also a predominant inducement of adolescent suicide [1]. On the other hand, with the development of society, increasingly more families are willing to accept pets as a family member. Particularly, adolescents have showed a certain degree of attachment to their pets [2]. In recent years, a new breed of dogs, i.e. the emotional support dogs have gained popularity, and they have shown a positive effect as a gentle treatment for mental illnesses such as anxiety, depression, autism, post-traumatic stress disorder and bipolar affective disorder. According to experimental studies on humans and companion pets, especially dogs, when humans and dogs interact positively, the blood pressure of humans will drop, while the concentrations of β-endorphin, oxytocin, prolactin, β-phenylethylamine and dopamine in the bodies of both humans and dogs will increase [3]. Moreover, studies have reported that the emotional support dogs, after entering human families, can provide effective emotional support and positive emotional values for humans and benefit people' health. They can even mobilize human motivation and self-efficacy, and help humans to improve their self-management ability. Additionally, in the daily life with the companionship of a pet, the owner takes more mobility activities and has a higher sports level. Family members with the companionship of emotional support dogs experience significantly less loneliness compared to those without [4].

1.2. Research topic

Previous studies have verified the positive effect of emotional support dogs for individuals with psychological health problems. However, it remains unknown whether emotional support animals （ESAs) can help middle school students with short-term or long-term anxiety to control and regulate their mental state. Meanwhile, few studies have explored the feasibility of alleviating middle school students' academic anxiety by popularizing pet companionship. Exploration on these questions will have a great significance for addressing academic anxiety of middle school students and understanding the role of pet attachment in middle school students.

2. Research method

2.1. Research design

The purpose of this study is to investigate the effect of pet companionship on adolescents' academic anxiety, especially the role of pet companionship in alleviating their academic anxiety. In this study, interviews are designed to achieve the study objectives by exploring the mental state of middle school students that study in the room with companionship of a pet. Through the interviews, the paper would detect the study experience of the interviewees accompanied by a pet in their study room and delve into the role of pet companionship in regulating and impacting the interviewees' emotions during learning.

2.2. Research object

This study will select 6 junior and senior high school students aged 14-17 from Jiangsu Province, China, as the object of study. These students include 5 girls and 1 boy, among whom 3 students experience emotional issues such as depression and anxiety in a certain degree.

2.3. Research process

This study will employ semi-structured interviews. In particular, indirect interviews, i.e., telephone interviews will be conducted among five to six middle school students aged 14 -17. The interviews will help to explore the study experiences of the interviewees accompanied by pets in the study room and understand their learning efficiency and academic anxiety in the circumstance with pet companionship. The whole process of the interviews will be audio-recorded and saved for subsequent objective analysis. This study will verify whether pet companionship can provide positive emotional values to middle school students, improve their learning enthusiasm and self-management skills and alleviate their academic anxiety. Finally, the final review results will be subjected to content analysis, so as to provide insights into the impact of pet companionship on middle school students' academic anxiety.

2.4. Research hypothesis

This study proposes a hypothesis that pet companionship has a positive influence on reduced academic anxiety in middle school students. To versify this hypothesis, this study adopts the research method of interviews, with the attempt to get a deep understanding of the positive effect and the possible negative effect of pet companionship on middle school students, as well as the role of pet companionship in alleviating academic anxiety of middle school students.

3. Review results

3.1. Adolescents' attitudes towards pets

In this study, semi-structured interviews were conducted with 6 adolescent students (5 girls and 1 boy), 5 of whom had pets at home, and 4 of them claimed to take partial responsibility of taking care

the pets. In the interview survey, all the 6 respondents expressed their love for different kinds of pets, spanning from common pet cats and dogs, small pets, to reptiles that have gained popularity recently. One of the interviewees said, "I have a hamster, and I feed it and clean its cage by myself. The hamster is small, quiet and docile, and it does not need a large space in the bedroom. I can even feed it food by putting it on my hand. It is very healing to keep a hamster." In addition, the interviews also revealed that for adolescents, the definition of pets has expanded from mammals or birds in the traditional sense to fish, reptiles, amphibians and even insects, which widens and diversified the definition of pets [5]. Additionally, pet owners viewed their pets, whatever kinds of the pets, as companions in their lives that can provide positive emotional values to them. Overall, families today are expanding the definitions of pets to include animals that do not conform to the traditional definition of pets but to those which can provide emotional values to humans.Teenagers are at the forefront of this development and are becoming more inclusive for the definition of pets. Most teenagers are interested in at least one kind of animals and are willing or eager to have a family pet as a companion for their life and study.

3.2. Coping ways of adolescents in face of academic anxiety

According to the interview survey, 4 interviewees (1 interviewee was excluded as this student was on leave of absence from school), whose scores fluctuated around the intermediate level, occasionally encountered anxious emotions that were difficult to regulate by themselves in their study. All the other interviewees rarely experienced serious academic anxiety. The reasons for anxiety include too difficult test questions, confused knowledge points, too heavy workload, examination anxiety, academic performance anxiety, and excessively high expectations from themselves or their parents [6]. Based on the causes of anxiety mentioned above, academic anxiety can be simply divided into anxiety arising from the learning process and anxiety caused by the learning results. If divided according to the formation of anxiety, anxiety can be classified as anxiety generated by external pressure on students and anxiety generated by self-worry of students. As for the coping ways, it is found that the interviewees adopted two types of ways to cope with academic anxiety: (1) communicating with others to seek for solutions to release excessive pressure; and (2) overlooking anxiety and not interfering with it. The coping way of “communicating with others” has a significant effect on reducing stress, but sometimes this also does not work as adolescents may not acquire accurate solutions due to limited cognitive level of their peers or communication gaps between these students and their parents. The other coping way of overlooking anxiety will lead to continuous accumulation of pressure and the final explosion when the threshold is reached. Two respondents who mostly adopt non-intervention in face of anxiety said, "Compared with preventing anxiety and learning coping methods and knowledge, I prefer to take hurry-scurry reactions (instinctive reaction or instinctive response) when I really encounter difficulties. To make assumptions and responses in advance will limit my ability to adapt to the current situation”; “I choose to overlook unimportant things, and push myself to react quickly when encountering important courses and things. But currently there are no particularly difficult courses, so there is no anxiety. The main reason is that I am lazy and unwilling to do interventions in advance (lack of motivation).” This reveals respondents’ preference to take inaction for anxiety, which may be caused by many factors. However, they share the same purpose, that is, they choose to escape when encountering anxiety.

In conclusion, adolescents aged 14-17 years deal with academic anxiety caused by internal or external factors in two ways: seeking for external help and seeking for internal avoidance. However, the causes of academic anxiety are more complicated and the solutions are varied. Therefore, it is difficult for the adolescents to respond correctly.

3.3. Effect of pet attachment on adolescents

Among the 6 interviewees, 4 students claimed to take the responsibility of taking care daily needs of their pets, such as cleaning the pet’s activity area, feeding, and playing with them. Their care for pets is similar to children parenting in their families and can project the family's parenting style and

the way to address problems when children face problems. It is noticed that one interviewee is depressive and introverted. She mentioned that her parents did not allow her to express emotions outwards, such as blaming, scolding others or yelling at others. When asked about whether the dog can help her to alleviate academic anxiety, this interviewee said that staying in the same room with the pet cannot release her emotions because her parents did not allow her to convey negative emotions to others, even the pets. She said she was confused with her current emotions, while self-accusation intensified this emotion. She did not expect her "son" (her pet dog) to help her relax herself, and she always felt guilty for letting her dog stay around her, neither too far nor too close to her. The relationship between this interviewee and her dog reflects the influence of the parenting style on her. In the interview, this interviewee also mentioned that although she did not develop an intimate relationship with her dog, the companionship of her dog within a short distance significantly reduced her anxiety and unrest. If her "son" was not with her, she would feel more restless when encountering the same situation. The reassurance of having a pet by their side creates a pattern of pet-attachment behavior, which is deepened in the continuous emotional connection between teenagers and family pets. In the interaction with pets, animals do not criticize or blame a person's behavior, and such behavioral pattern is extremely difficult to achieve between humans.

In conclusion, this kind of attachment model allows adolescents to assume the responsibility of taking care of and feeding pets in their learning and life, and establish an emotional bond with their pets. Pets' unrequited enthusiasm and vitality can create a more gentle environment for adolescents [7]. Besides, pet companionship can also help to regulate and alleviate adolescents' anxious emotions and behaviors caused by certain family upbringing styles.

3.3.1 Advantages and limitations of pet companionship during adolescents' learning

Five of the six middle school students interviewed in this study had the experience of learning with pets (i.e., humans learn with companionship of pets in the same space), and all five respondents reported that having a pet around was more relaxing than having a parent around as pets can effectively relieve their anxiety when doing homework. The companionship of a pet provided the respondents with a feeling of closeness, safety and peace of mind. With the pet as an object of attachment, the respondents can obtain comfort through interactions with the pet [8]. Furthermore, the research team also conducted in-depth discussions with two of the six interviewees. These two interviewees claimed that with companioning of a pet, they felt reassuring and did homework efficiently in face of a large volume of learning content or massive simple learning tasks. However, the pet companionship cannot have an obvious positive effect on students' emotional issues when they have to handle massive difficult learning tasks.

On the other hand, pet companionship also has some limitations. First, pets may have a negative effect on adolescents' learning such as distracting their attention. The pets in this study were not professionally trained ESAs with an animal assisted intervention (AAI) function, and these non-working animals have their own emotional needs. When adolescents study, the pets as companions may be overactive and noisy. In some families with multiple pets, the pets may even seek for more attention in case of inharmony between them. These situations can interrupt students' learning and force them to pay attention to the needs of their pets, which in turn negatively affects their learning efficiency. Second, despite the rapid increasing pet market in China, there are not effective regulations to guarantee pet feeding and there is still a lower popularization rate of providing professional trainings for pets [9]. Families with adolescent students choose pets to accompany adolescents during their study, and domestic pets that receive socialized trainings will be better suitable for specific individual families. Compared with professionally trained ESAs, domestic pets are more convenient to breed and less economically demanding. In contrast, the popularization rate of emotional support animals is low in China, with no protection from relevant laws and regulations and expensive fees for handling the relevant procedures [10]. Nowadays, with a higher generalization of psychological problems among adolescent students, pet companionship can be an inexpensive and gentle supplemental way to relieve adolescent students' academic anxiety.

4. Conclusion

This study finds that pet companionship can have a significant positive impact on academic anxiety when adolescents face a large volume of simple learning tasks; but this impact is not significant when adolescents face difficult learning tasks. After domestic pets have undergone domestic socialization trainings, it is easier and more cost-effective to use these domestic pets for companionship when adolescents learn compared with professionally trained ESAs. Finally, pets can provide the adolescents with a gentler form of emotional regulation.

References

[1] Fu, X. L., & Zhang, K., Report on National Mental Health Development in China, (2021-2022). Social Sciences Literature Press, Beijing, 2023. 1.

[2] Wu, Y. L. (2021). Adolescents' Empathy for Humans and Animals: The Mediating and Moderating Role of Pet Attachment, (Master's thesis, Beijing Forestry University). https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202201&filename=1022455291.nh

[3] Odendaal, J. S., & Meintjes, R. A. (2003). Neurophysiological correlates of affiliative behaviour between humans and dogs.The Veterinary Journal, 165(3), 296-301.

[4] Brooks, H. L., Rushton, K., Lovell, K., Bee, P., Walker, L., Grant, L., & Rogers, A. (2018). The power of support from companion animals for people living with mental health problems: A systematic review and narrative synthesis of the evidence. BMC psychiatry, 18(1), 1-12.

[5] Qiao, Y. L., (2010), Overview of Amphibious and Reptilian Pet Breeding in China, Aquarium (06), 160-162.

[6] Shi, Y. J., (2022), Causes and Countermeasures of Adolescents' Learning Anxiety, Mental Health Education in Primary and SecondarySchools (33), 60-62.

[7] Jones, M. G., Rice, S. M., & Cotton, S. M. (2019). Incorporating animal-assisted therapy in mental health treatments for adolescents: A systematic review of canine assisted psychotherapy. PloS one, 14(1), e0210761.

[8] He, W. M., Zou, S. J., Lai, H. Q., & Jiang, G. F., (2020). The animal presence effect: the physical and psychological impact of animal-assisted interventions on exceptional children, Mental Health Education in Primary and Secondary Schools (08), 39-44.

[9] Chen, L. H., (2018). The Current Status, Influence Factors and Development Trends of China's Pet Industry. China Animal Health (08), 4-8.

[10] Zhang, Y. D., & Jia, Q., (2021). Research on the Development of the Pet Industry in the New Era. Modern Business Trade Industry (30), 17-18. doi: 10.19311/j.cnki.1672-3198.2021.30.008.