

A Systematic Review of the Positive Effects of Pets on Child Development

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Abstract: It is necessary for parents to consider the essential child development after the birth of their kids, including various aspects such as social skills, stress regulation and cognitive abilities. This review focuses on the effects of pets on children in general families in the process of child development by evaluating and investigating relevant case studies, and children with special conditions including mental illness or psychological problems are not considered in this analysis for the time being. Overall, this review shows that pets have a significant positive effect on social interactions, intellectual development, concentration, stress reduction etc. in child development.. Besides, pets can help to build a loving and stable family atmosphere which provides a conducive environment for child development, and improves the ability children interact with their parents. Although some literatures indicates that negative impacts on children development can occur when children stay with pets, overall, the positive boosts to children's development far outweigh the negatives.

Keywords: human-animal interaction, pet companionship, child development, education, psychological health.

1. Introduction

In today's society, people have begun to show more and more interest in and concern for pets. Also, increasing numbers of families have the idea or action of keeping a pet. In many representative countries and regions, such as the United States, Europe, Australia, and China, the proportion of families with pets has reached about 70% [1]. In addition, a study focusing on American households indicated that a more obvious trend in American society is that it is more likely for families with kids to keep pets [2]. As adults can derive benefits from animals to buffer physiological and psychological stress, a number of families who keep pets are due to their parents themselves [3]. They will also develop biophilia, a specific affinity humans have for nature and other creatures [4], after staying in close contact with pets. Other pet keeping families have the goal of helping their kids develop important qualities such as responsibility. Companion animals also have the ability to improve juveniles' HAI [5]. More and more literature can prove that keeping pets has many benefits for people, such as relieving anxiety and stress, being a 'social lubricant' or 'social ice-breaker' between strangers, and so on, but there are still only a few studies looking at how children are affected by pets [6]. The objective of this systematic review is to understand what positive effects pets have on children's development in families and to evaluate the extent to which these effects impact children in their future lives. By collating and evaluating experimental design and theoretical analysis from

several literatures, this review explores the effects of pets on children's growth and development, and analyzes how these effects can actually contribute to the process of growing up. This review can help more people understand the beneficial help and important position of pets on children's development. In cases where parents do not have enough time to accompany their children, or parents do not have the ability to patiently help develop their children's social skills or attachment relationships, pets may be considered to replace some of the parental roles in their children's development [7].

2. Material and Methods

The studies and literature included in this systematic review follow a priorly established protocol by Moher in 2009. This review includes studies with general and mentally healthy children and juveniles (under the age of 18) in an attempt to discover several different effects of pets in a more general population. The focus of the systematic review is to examine the types of effects pets have on children and juveniles, and investigate how these effects contribute to children's abilities and personalities, taking into account children's relationships with adults.

Literature was obtained from Pubmed database, and articles published through April 2024 were searched. 'Education', 'children', 'psychology', 'child developments' and variations of these terms were used and combined with 'pets', 'human-animal interaction'. In order to achieve the research objectives and analytical focus, the research data covered in this paper all include the research design and tools, procedures, population characteristics (including age, gender, number of participants, etc.), control condition, results, and analysis.

No literature was excluded from the literature screening process for this paper based on research design and methodology. And according to the content requirement, no analysis of studies not considered relevant for the purpose of this article, including but not limited to animal-assisted therapy (AAT), effects of pets on physical health (asthma/allergies or other chronic diseases), was not included as required by the content.

3. Results

3.1. Emotional and Relationship Benefits

Francesca et al. conducted tests to assess the psychological well-being of groups of children, and revealed that children who had pet ownership exhibited significantly higher levels of self-confidence and self-esteem [3]. Furthermore, according to the study, animals are very helpful in relieving the tension of children in unfamiliar situations, such as going to the hospital or attending public speaking. The presence of animals makes children's blood pressure and heart rate slightly lower, which indicates the relaxation of children's stress. In addition, Purewal et al. have elaborated that the emotional benefits of pet ownership include: alleviating anxiety in children, moderating depression in adolescents, assisting in building self-esteem and self-confidence in adolescents aged 8-13 years, and alleviating and even protecting adolescents from loneliness [5].

Jackson et al. conducted interviews and questionnaires with teenagers on the topic of pet ownership, and the inquiries and evaluations centered on the prosocial behavior, empathy ability, depression degree, and delinquency ratio of juveniles. Finally, they concluded that adolescents' attitudes toward pets can reflect the future personality growth of the subjects to a certain extent, and that the behavior of pet ownership can clearly improve the empathy ability of adolescents [2].

In 2017, a school in the United Kingdom conducted an analytical experiment on questionnaires about the family's economic level, the children's attachment to pets, attitudes towards pets and views on wildlife, and the degree of compassion for animals [7]. The results showed that 70-80% of the children showed a high level of attachment to their pets, and formed strong links and emotional relationships with them. Children's involvement in the role of caring for pets in the home helps to

build relationships with the pet that improve the quality of life and sense of well-being, and it also helps children learn more practical skills. Children can also gradually learn to empathize with pets in the process of pet ownership (such as when the pet is sick), and helping to cultivate children's empathy is of great significance for the development of prosocial behavior.

In addition, Ursula et al. experimented with a questionnaire taken from Puerto Rico on the degree of coexistence between residents and pets and the expression of specific emotions [8]. The results showed that most of the respondents had at least one pet. People who lived with their pets felt seven percentage points more secure. The vast majority of participants said they received positive feedback from their pets, such as relieving anxiety and stress, and calming negative emotions. The researchers also observed that people who lived with pets tended to have higher levels of feelings. Since many of the participants in the families reported spending a lot of time with and playing with their pets, and most families considered their pets to be an important member of their family. This is training that is very helpful for people to develop intimate and deep relationships. However, this study does not directly refer to the influence of pets on children's personalities, but it certifies that pets are the glue and cohesion of the family atmosphere, and that a positive family atmosphere contributes to the development of children's communication methods and positive inner traits. In addition, children having a relatively relaxed, free, and safe living space is also conducive to the development of a healthy child's psyche.

In the study of adolescents' relationships with pets in relation to family relationships, Charmaraman et al. adopted the form of separate interviews with children and their guardians to emphasize the unique importance of understanding adolescent animals from the perspective of both children and parents [9]. The children interviewed were teenagers from 10 to 17. The results showed that about a third of families consider their pets to be family members, with some treating them as their own children and others treating them as siblings. During the pandemic, family relationships among families with pets have greatly improved as a result. One of the hallmarks of a healthy family is the degree of care and interaction that family members have with their pets, so families with pets can alleviate some of the excessive stress of multiple identities, thereby supporting communication within the family and maximizing the human-animal connection.

Although Rikako et al. suggested that pet ownership had little effect on children's emotional expressiveness, children who had pets in their homes as toddlers had a lower incidence of poor emotional expression in later childhood than children without pets [1]. Pet ownership allowed children to freely express their inner thoughts and emotions to pets without being judged and criticized, which build the confidence foundation of children's expression ability, thereby promoting the development of children's emotional regulation ability and preventing early emotional disorders in children.

3.2. Action Benefits

Francesca et al. mentioned that children who grow up with pets can gain a place among peers and be valued by the peer after establishing valuable qualities such as a sense of responsibility, which helps children to be valued by peers [3]. And experiments by Jacobson et al. show that pet ownership significantly reduced the risk of juvenile delinquency, and the effect was statistically significant [2].

In the study of Carri et al., testers investigated the associations of different types of pet ownership reported by mothers at the age of ten with variables of interest, and dispersed them into factors related to individual pet types for discussion [10]. The study found that households with one type of pet increased the likelihood of having multiple pets; Large families of five or more are more likely to keep all kinds of pets (except cats) and to be present throughout the child's childhood. The data, which also collected questions and answers from mothers during pregnancy, showed that children who have loved pets since they were young tend to become more pet owners after being mothers.

Lisa et al. used Computer Assisted Telephone Interviewing (CATI) to find out whether dog owners in countries such as the United States and Australia meet new people while walking their dogs [6]. To investigate whether pets provide additional positive social interaction. The results showed that more than 80% of people said they had met new friends because of dog walking, and the data analysis concluded that dog walkers were more likely to meet new neighbors than non-dog walkers, and the data of meeting strangers in this way was almost half. Owners said that 'pet love' as a common denominator is one of the factors that promote friendship between people. Not only that, pets have also become triggers for strangers, such as small animals stealing into other neighbors' yards and so on. Companion animals act as icebreakers, bridging the gap between people, and allowing pet owners and pet lovers to build deep friendships by finding common ground. Again, this article does not directly focus on the positive effects of pets on children's character development, but there are many families who let their children walk their dogs. It is also a very important part of developing friendships among teenagers. Especially when a family moves to a new neighborhood or city, the friendly communication generated by dog walking is easy and natural, helping the child integrate naturally into the local community environment.

Purewal et al. claimed that the behavioral benefits of pet ownership include perceptual, cognitive, physical, and peer acceptance in young children [5]. Primary school students with pets can show greater autonomy in learning, showing that children with pets are more able to view themselves from a third party perspective and promote the development of personality with responsibility. In the adolescent data, pet ownership increased responsible behavior in children, and dogs provided an opportunity to take charge and care for others, which also encouraged pet owners to make healthier self-care choices, such as reducing alcohol consumption and starting to manage money.

3.3. Cognitive Outcome

Using survey data related to cognitive outcomes, Purewal et al. showed that children with pets generally had better social cognitive skills than other children, and significantly more comprehensive development in their ability to exchange opinions. Parental guidance on pet care was also helpful, promoting cognitive improvement and flexible problem-solving skills [5].

In addition, Francesca et al. reported that children with pets demonstrated an enhanced comprehension of abstract concepts such as death, strongly indicating that companion animals play a pivotal role in fostering emotional and cognitive development among kids [3].

3.4. Help in Education and Learning abilities

Purewal et al. investigated the effects of pets on educational outcomes in a study on education and learning [5]. Children aged 2-6 with pets are more likely to attribute biological traits to animals, increasing children's knowledge of biology. The cognitive foundation of pets helps the child develop future representations of more complex humans. The empathy and emotions that 4-5 year olds can develop from pet ownership can help them complete school-related tasks. Pets also provide children with positive feelings of well-being and increase their understanding of social behavior.

4. Discussion

This review paper focuses on the necessary help and promotion that companion animals can bring to the development of children in the average family, and discusses several positive effects of companion pets on children's personality development and family environment through the study of ten experimental and review articles on the topic of HAI. The literature reflects that children's emotional stability, social ability, cognitive ability, learning concentration, and efficiency of receiving knowledge have been developed and improved to varying degrees because of the existence of animals.

One of the most proven aspects is the emotional support that companion animals provide to children. Pets help children relieve stress and psychological anxiety. When younger children are nervous and stressed about strange environments and behaviors, such as attending lectures, the presence of animals can calm their mood and give them a sense of security and affirmation, so as to face these strange environments more calmly. Minors can incognito train their social ability by getting along with animals, improve their ability to communicate with other children in the future, greatly reduce the probability of children growing up without friends or not knowing how to get along with their peers, reduce the possibility of children being unsociable, and help maintain children's psychological and social health. It also provides a program to ease the psychological pressure on children for families who are easy to move and need children to constantly contact the new environment.

It is very interesting to explore that in the analysis of several studies, the researcher highlighted the significant contribution of pets to maintaining family harmony and promoting communication between parents and children during the pandemic. The data showed that more than half of the families tested maintained daily family communication because of their pets, and an additional number of families increased the frequency and content of communication with their parents because of the presence of pets, thereby opening up communication and understanding on other topics. This is still a relatively blank field, with very little information and literature focused on the topic of using pets to improve communication between adolescents and their families, and there is still a lot of room for exploration. However, after collating and analyzing the data in this review, pets can be a very healthy and friendly way to close the spiritual distance between people. Considering the fact that many families refuse to communicate and do not understand each other, usually due to the lack of common topics between parents and children, and the aggressive attitude of parents toward the exploration and inquiry of various hobbies of their adolescent children, it also deepens the generation gap between children and parents. The identity of "pet" provides a permanent common topic for the family, and parents can choose this topic more easily if they want to have any communication with their children. For example, parents can talk with their children about their pet rearing experience, any changes and interesting things that have happened to the pet recently. When the pet is sick, they can also feel the concerted effort to solve a difficulty with the child, and take the opportunity to cultivate the child's ability to solve problems.

But it's not just common talk that can turn around a fraying family relationship. Parents need to recognize that pets are just a lubricant and a conditioner, and that communication is central to solving the family's adolescent problems. Parents should also be able to understand and listen to the children's popular new things while finding common topics. Only this way can gradually improve the harmony of the family atmosphere, and provide a loving growth environment for children and pets.

5. Conclusion

Interactive and sociable pets can have a significant positive impact on the growth and personality development of children and adolescents. Specific contact with pets, such as touching, walking or traveling together, and acting as a child's chat and feedback object, etc., can build children's sense of security and self-esteem. It also plays an important role in maintaining a child's mental health due to the warmth of body heat and fluffiness and other tactile sensations that can relieve stress in unfamiliar environments, helping to alleviate anxiety and depression. Pets also provide children with social skills training, whether it is through activities such as walking the dog to increase the chance and possibility of contact with others, increasing the common topics of conversation between children and closing the distance. As well as, listening carefully to children and giving positive feedback and affirmation, animals can promote the development of children's social skills. What's more, pets help to build children's cognitive abilities, children have concrete understanding and experience of responsibility

because of dog ownership, but also let children actually experience abstract concepts, such as death. Pets can also be helpful in improving children's concentration and attention in learning.

However, this paper does not specifically consider that each family has a different variable relationship, and these variables cannot be universally included (such as whether the economic status supports the raising of extra pets, the physical status of family members, etc.). All the positive effects discussed in this paper cannot always be applied to all families, so the data and statistical analysis are not stable enough. It indicates a possible way for further experiments and exploration. Another shortcoming of this paper is that the main methods used are only literature investigation and analysis, and do not involve data collection and testing by designing experiments ourselves.

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