

Investigation of the effects of the interaction between pets and children on development and psychology during the covid-19 pandemic period

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Abstract

With the increasing number of COVID-19 virus cases causing pandemic effects worldwide, various measures such as restrictions have been taken. During these precautions, it has caused various stress-related problems in children who do not have the habit of staying home for a long time. Children were school life and being away from friends cause various problems such as sleep disorder, anxiety, depression, fear, anger, stress, sensitivity, feeling lonely. It is known that pets play a large part in the ability of children to cope with such problems. In this study, the relationship between the sense of responsibility, sleep disorder, hyperactivity and anger and pet owner during the covid-19 pandemic period of participating children was examined. In addition, the study was examined the relationship between attachment to the pet types of children during the covid-19 pandemic. In children with pets; when the relationship between animal types and attachment is examined; dog as pets for the majority of men; girls were found to have a cat. In the study, the sense of responsibility of children who own a pet; it was found that it is more developed than those who do not own a pet. When the sleep pattern disorder was examined, It was determined that it is more common in children who do not have a pet. In addition, it was found that children who do not have a pet are more hyperactive and angry. In this study, it was aimed to provide information about the effects of interaction between pets and children on development and psychology during the covid-19 pandemic.

Keywords: Child development; Covid-19; Pet; Psychology

1. Introduction

Covid-19 (SARS-CoV-2), a worldwide pandemic effect, first appeared in Wuhan, China, in December 2019 [1]. With its spread in a short time, it was affected the whole world. The world health organization declared Covid-19 as a global epidemic on March 11, 2020 [2]. Various measures was taken to prevent this epidemic. With the increase in the number of cases, restrictions and quarantine measures were taken. During these measures, various stress-related problems started to arise in children who do not have the habit of staying home for a long time. Among these problems, problems such as sleep disorder, anxiety, depression, fear, neurodevelopmental disorders, biological deterioration of homeostasis, sensitivity to the effects of stress, hyperactivity disorder, hyperkinetic disorder, attention deficit occur in different age groups, especially in children [3; 4; 5; 6]. In addition, it is observed that they react to environmental changes due to restrictions, prevent socialization, excessive exposure to social media, anxiety, aggression and loneliness

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[3; 4; 5]. Especially during the Covid-19 pandemic, it is among the factors that cause children to feel lonely due to their school life and being away from their friends [7; 4; 5]. Pets that help us cope with these; It contributes to increase the quality of life by helping people to increase their social support, their ability to cope with stress, and to eliminate negative social behaviors such as agonistic interactions [8; 9].

In the studies conducted, it is stated that children generally prefer cats and dogs as domestic animals. Reasons for this include the fact that the child communicates and plays with a dog or a cat, is easier than playing with a fish or canary, and is more interacting with other types of pets. Especially girls and boys; It is known that they attach to their pets at an early age and see them as a friend [10]. In some studies, it was observed that girls are more dependent on their pets than boys. Also, not only in breeds like cats and dogs; It was observed that girls are more dependent on other types of pets [10]. It is stated that the attachment of children to their pets, various responsibilities such as care, feeding and empathy contribute to their ability [10]. Especially attachment to pets is observed in young children [11; 12]. For example; In a study conducted by Melson (1991), it was stated that attachment to pets after the age of 13 tends to decrease. In a study conducted by the American Veterinary Medical Association; It was reported that 70% of all households with children less than 6 years old and 78% of all households with children older than 6 years had pets [11; 12; 13; 25].

Family is one of the most important factors in gaining animal love in children. Children spend time like friends with pets owned by families. A child who grows up in a family that knows the needs and responsibilities of animals gains positive effects from this attitude [14; 15; 16]. When the effects of these gains on children are examined; learning, development, motivating, enhancing performance, sense of responsibility, independence, self-confidence, positive behavior development in terms of other autonomous traits, improved cognitive executive function through speculation, stress reduction and social support, gaining cognitive, physical, creative, problem-solving ability, It has been observed that social and cognitive functions support development, help children enrich their vocabulary, acquisition of reading skills, social functionality and academic competence, emotional stability in school and attitudes towards school [17; 18; 19; 20; 21; 22; 23; 24; 26; 27]. It was observed that children who grow up with pets show higher levels of self-esteem and become more socially competent adults than children who do not grow up with pets [28]. Also; It is known that overcoming fears, controlling anger, sharing, increasing empathy, tolerance, self-control and autonomy, love of friendships, increased social interaction and communication skills, hormonal effects also play a role [10; 13; 14; 15; 28; 29; 30; 31].

2. Material and methods

In this study, in the 0-3, 3-6, 6-9 and 9-12 age range; it was realized with a total of 266 participants, 137 girls and 129 boys. Participating children were randomly selected by considering only age criteria. The questions directed to the participating children and their families were answered together. The relationship between the sense of responsibility, sleep disorder, hyperactivity and anger and pet owner during the covid-19 pandemic period of the participating children was examined. In addition, the study examined the relationship between attachment to the pet types of children during the covid-19 pandemic. The findings obtained from the study were made using SPSS statistical software for statistical analysis.

3. Results

Participating children in the study; they stated that they were cats, dogs, birds, fish and other kinds of domestic animals. While 45.11% of the children in the study had pets; 54.89% it was determined that he did not have any animals he owned. While 51.82% of the children who have a pet in the study are girls; 37.98% are boy participants. In the study, boys who have the most pets, depending on gender, are between the ages of 6-9. The age range of girls, who have the most pets, was found to be 3-6 years old.

Table 1 Different age ranges and pet ownership relationship in children.

	0-3 Age	3-6 Age	6-9 Age	9-12 Age
♂ (Boy) Pet Owner	7	21	12	9
♂ (Boy) Without Pet	16	13	25	16
♀ (Girs) Pet Owner	14	26	18	13
♀ (Girs) Without Pet	21	12	14	19

The girls had 43.66% cat, 25.35% dog, 12.68% fish, 15.49% bird and 2.81% other pet types as pets. The boys had 28.57% cat, 42.86% dog, 6.12% fish, 14.22% bird and 8.56% other pet types.

Table 2 Pet species and their owners gender relationship.

	Cat	Dog	Fish	Bird	Other Types of Pets
♀ (Girs)	31	18	9	11	2
♂ (Boy)	14	21	3	7	4

While 45.11% of their children in the study have a pet; 54.89% does not have a pet. In the study, children with pets; 85.83% sense of responsibility, 14.16% sleep disorder, 21.66% hyperactivity and 25.83% anger were observed. It was observed that 40.41% of the children who do not have pets had a sense of responsibility, 48.63% had sleep disorder, 71.92% had hyperactivity and 58.90% had anger.

Table 3 Pet relationship with criteria.

	Sense Of Responsibility	Sleep Disorder	Hyperactivity	Anger
♀ ♂ (Girs, Boy) Pet Owner	85,83%	14, 16%	21,66%	25,83%
♀ ♂ (Girs, Boy) Without Pet	40, 41%	48, 63%	71,92%	58,90%

In the study, a significant difference was found between the sense of responsibility of the children who own a pet and the group who did not have a pet. It was determined that children who have pets have a more developed sense of responsibility. When the sleep disorder was examined, it was observed that there was a significant difference in children who did not have a pet. In addition, these children were found to be more hyperactive and angry.

4. Discussion

Pets are known as close friends of all age groups, especially children. In recent years, it has been used for therapeutic purposes of animals in the fields of nursing, medicine and psychotherapy [32]. In some studies on adults; It has been observed that if they are friends with animals, they normalize the problems in heart rate and contribute to the reduction of the effects of problems such as anxiety and depression [3; 33; 34]. When the interaction of children with animals is examined; It has been found that stress decreases, attention deficit / hyperactivity and behavioral disorders in children contribute to the reduction [35; 36]. In addition, it was observed that it helps children with Down syndrome increase their positive behaviors [37]. In the study conducted by Güle and Özkan (2013), they examined the effects of children aged 4-6 on their development while living with a pet at home [15]. In the study, they was reported that keeping a pet at home contributed positively to the psychological development of children. In the study by Martin and Jennifer (2002), they quantitatively examined the effects of interaction with dogs on children with pervasive developmental disorders (PDD) characterized by a lack of social communication and ability [14]. In the study findings, it was stated that interaction with dogs in the social environment of children was beneficial and animal assisted therapy was an appropriate therapy method. Law and Scott (1995), who conducted a similar study; Redefor and Goodman (1989) and Nathanson et al. (1997) obtained similar results [38; 39; 40]. In the study conducted by Daly and Morton (2003), they examined the relationship between pet preference and empathy [41]. When the study examines some of the general findings about dogs and cats; Children who preferred both dogs and cats (Pet Preference Inventory) reported higher empathy than those who only preferred cats or dogs. Researchers was found that those with both dogs and cats had higher empathy than those who had only dogs, only cats, or none. In addition, those who are highly attached to their pets (Lexington Pet Attachment Scale) reported higher empathy ability and empathy and positive attitude (Pet Attitude Scale) compared to those who were less attached. They were observed that girls significantly more empathetic than boys. In another study conducted in a similar way; Beth Daly and Morton (2006) conducted a questionnaire to examine the relationship between human-animal interactions and empathy in terms of four-way - preference, ownership, attachment, and attitude [42]. In the study, they stated that there were a positive relationship between the empathy ability of individuals who have cats, dogs, or both. In the studies conducted by Baron-Cohen and Wheelright (2004), Gawronski and Privette (1997) and Eisenberg and Lennon (1983), girls who own a pet; stated that men have higher empathy skills [43; 44; 45]. In the results of a study on horses, Kaiser et al. (2004) were reported that children without physical or mental disabilities experienced a reduction in anger control and anger after participating in a five-day "therapeutic" riding program [46]. In the results of the study conducted by Paul and Serpell (1993), they were stated

that the number of pets individuals have in their childhood is associated with the frugal behaviors they display in their adulthood. In addition, empathy scores of adults were reported to be correlated with the number of pets they had in childhood [47]. Robert et al. (1987) were examined the relationship between children (high school and university) and animals (pet ownership) [48]. The researchers used the Companion Animal Bonding Scale, an 8-item behavioral scale that describes the scope of child-animal activities. According to the results of the study, the relationship between self-confidence and pet ownership in children was estimated as 0.82 and 0.77, respectively, according to Cronbach's alpha estimates. They were stated that it showed significant correlations between the scores of the children and the contemporary attachment scale, between .39 and .40 points, respectively. According to the results of their study, Hydek et al. (1983) found that pet owners have higher social sensitivity and interpersonal trust criteria than those who do not [49]. Also, the quality of the relationship between the children and the pet; stated that it affects their social interactions. Melson (2003) was stated in the results of her study that the animals they have had a positive effect on perceptual, cognitive, social and emotional development [17]. In the study conducted by Vidović et al. (1999), they were examined the sensory characteristics of children with and without pets. In the study, they stated that 54.4% of the children have a pet (26.2% of the children had a dog, 9.2% had a cat, and 19.0% had another pet). In the study conducted by us; while girls have 43.66% cats, 25.35% dogs and 30.98% other pet types as pets; It was determined that 28.57% of males adopt Cat, 42.86% dog and 28.5% other pet types [50]. In the results of the study conducted by Vidović et al. (1999); dog and cat owners stated that they found them more empathetic than those who did not [50]. In addition, when the socio-emotional functions of the children and the pet attachment scale (non-owners, average and above, average and below) were examined, children who scored higher than average, empathy and prosocial orientation compared to children who scored below average on the attachment to non-owners and pets scale, they were reported that they got significantly higher scores on the scales. Westgarth et al. (2013) stated that 1021 primary school children aged 9-10 years prefer dogs as the most common and favorite pet [51]. In their study results, they were reported that they found a significant relationship between gender, ethnicity and socioeconomic status, pet ownership and sibling status and pet attachment level. In our study, it was found that boys most commonly adopted dogs as pets with a rate of 42.86%. In the study conducted by Siegel (1995), they were stated that the dog or cat was mostly preferred as a pet [52]. However; It was reported that the least fish are preferred as pets. Similar results were obtained in the results of our study; The least preferred pet was determined to be fish. Purewal et al. (2017) were examined a wide variety of emotional relationships among children with pets in their study [53]. In the study, they were reported that children with pets provide behavioral, social developmental, cognitive, educational, perspective-taking skills, and intellectual developmental benefits. Beetz et al. (2011-2012), Gee et al. (2015) and Melson (2011) stated that dogs cause children's cortisol levels to decrease significantly faster. They also reported that after the stressor it dropped to low levels [28; 29; 30; 31]. Beetz et al. (2011-2012), Gee et al. (2015) and Melson (2011) reported in their study that enabling children with insecure and irregular attachment to interact with a friendly dog is beneficial in regulating physiological stress levels [28; 29; 30; 31]. In the study conducted by Roxanne and Joanne (2017), they were examined the relationships between pet types and childhood attachment, pet care, compassion for animals and attitudes towards animals [54]. In the study, it was found that attachment of children to their pets was in a statistically significant relationship; 83% of those who have pets stated that their pets make them happy, 76% stated that their pets are their best friends, 62% stated that they would be alone without their pets. Marsa-Sambol et al. (2017) reported that they obtained similar results in a study conducted by researchers. Similar results were obtained in our study; it was found that children see pets as close friends [55].

5. Conclusion

When examined in the studies carried out; it is stated that pets have positive effects on children. In the study carried out by us, the sense of responsibility of children who own a pet; it was observed to be higher in non-pet owners. It was determined that children who have pets have a more developed sense of responsibility. When the sleep disorder is examined. It has been observed that children who do not have pets have more sleep disorders than children with pets. In the study, it was stated by the participating families that the children saw pets as a friend. In addition, these children were found to be more hyperactive and angry.

Compliance with ethical standards

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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