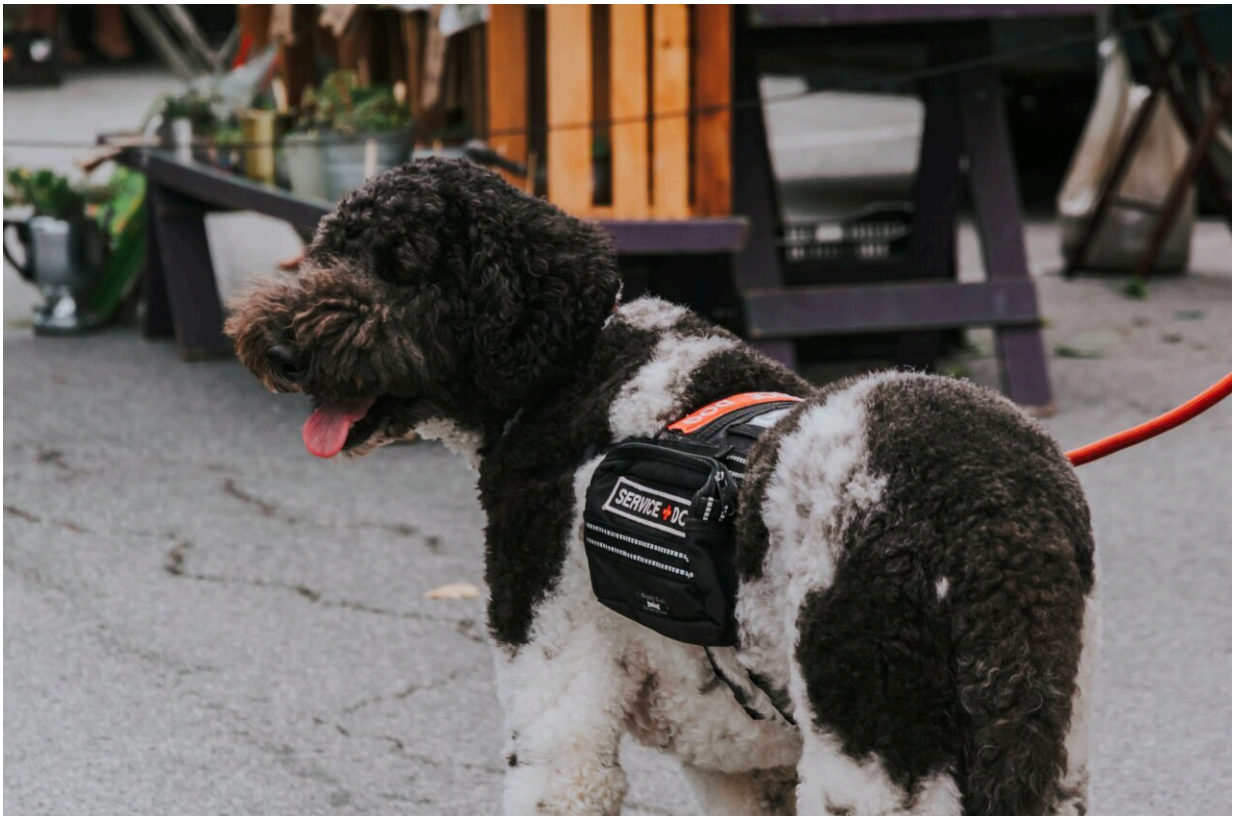


For children on the autism spectrum, having a service dog can lead to sleep improvements

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Service dogs, originally trained to assist physically disabled individuals with guidance, physical tasks, and medical alerts, have more recently begun to provide psychiatric assistance to individuals with conditions

such as schizophrenia, and post-traumatic stress, obsessive-compulsive, and—especially in children—autism spectrum disorders (also known as ASD or autism).

Children with autism may exhibit difficulty with verbal and/or non-verbal communication and [social interaction](#). In some individuals, the condition may also drive repetitive actions or lead to restricted behaviors. However, until now there has been little research to quantify the kinds of benefits children with autism spectrum disorder and their caregivers derive from their [service dogs](#).

To expand the literature, a team of researchers from the University of Arizona, the University of Virginia, and Purdue University has conducted a study to explore this topic in more detail. The work [appears](#) in *Frontiers in Psychiatry*.

The researchers hypothesized that "compared to those on the waitlist to receive a service dog, families with a service dog in the home would exhibit superior functioning in [standardized] measured domains" of psychosocial functioning for individuals on the autism spectrum.

The team also sought to understand how families' time spent living with service dogs, bonds between children and service dogs as well as between caregivers and service dogs, and families' perceived costs of service dogs might play a part in outcomes for children and caregivers.

In addition to need-specific educational interventions, some families arrange animal-assisted interventions (AAIs), in which a child can interact with a dog, horse, or other domestic animal that helps to create a general calming atmosphere. This may help improve children's abilities to communicate and interact socially, improve their attention span and emotions, and reduce their stress, negative arousal tendencies and [aggressive behavior](#).

On this basis, some families opt to have a service dog placed in their homes. According to the research, as of 2022, there were 64 organizations placing service dogs throughout the world with accreditation from Assistance Dog International (ADI) to specifically assist individuals with autism.

Such dogs can be specifically trained to help relieve sensory overload; interrupt repetitive behaviors; deliver deep, calming pressure; assist with certain daily activities and development of motor skills; and smooth the way for social interactions.

Qualitative results from previous studies also report that autism service dogs have "helped prevent or interrupt tantrums, improve sleep behaviors, prevent elopement behavior in public, and act as a calming and comforting presence," according to this new research paper. Moreover, there is evidence to suggest that service dogs provide stress relief and a sense of security for caregivers of children with autism (often their parents), as well as reducing isolation and making it easier to have longer and more frequent family outings.

For this study, the researchers recruited families from the database of Canine Companions, an ADI-accredited nonprofit organization that trains and provides cost-free service and assistance dogs to families in need throughout the U.S. Each eligible family had a child between 5 and 18 years old with an autism diagnosis. The study group included 39 families whose dogs had been in their homes for at least six months before the study, and the control group included 36 families meeting the eligibility criteria who were on the waitlist to have a dog placed in their homes.

Of the study children, 72% were male between ages 5 and 17. Three-quarters of the study children had limited verbal ability and 60% had developmental delays. Learning disabilities and attention deficits were

present in 49% of these children.

Among the group, treatments included applied behavior analysis, language and speech therapy, occupational therapy, social skills training, and various measures implemented by parents. Many of the children took one or more medications.

Participating families in both the study group and the control group completed questionnaires assessing the children's social communication, sleep habits, behaviors, and peer relationships. In both groups, caregivers completed questionnaires about caregiver strain, sleep disturbances, caregiver depression, and family functioning with respect to daily activities and family relationships.

Families in the study group additionally provided their perceptions of the costs of having a service dog and of the bonds between both the children and the dog and the caregivers and the dog.

Among the notable results, the researchers found an association between the presence of service dogs and better sleep behaviors in the study group children, including positive sleep initiation, longer sleep, and reduced sleep anxiety and co-sleeping behaviors [with caregivers]. The team notes that these findings "support the hypothesis that service dogs provide a sense of security and comfort to a child with autism at night, which may translate into exhibiting less sleep anxiety and co-sleeping behavior with a caregiver."

Interestingly, the findings also showed that children with higher measures of social functioning were more strongly bonded to their service dogs. "It may be that children/adolescents with more verbal and nonverbal communication skills tend to interact with or talk to their service dog more, leading to higher caregiver perceptions of the child-dog bond," the researchers write.

However, contrary to their hypothesis, the team did not find appreciable associations between having a service dog and the children's peer relationships or their emotional and social behaviors; nor between having a service dog and caregiver sleep and strain; nor between having a service dog and family functioning.

Nevertheless, the caregivers who felt that having the dog translated to higher costs for them—in the areas of finance, responsibility, and restrictions associated with having the dog—reported increased strain.

Among caregivers who were more closely bonded with the service dogs, the team found increased negative effects from the children's condition on [family](#) activities and relationships. "This may be due to the possibility that [caregivers](#) experiencing familial difficulties may be more likely to turn to the service dog as a source of support," the researchers note.

The team cautions that as this study was not longitudinal and did not include systematic demographic matching between groups, further research should include these features. Caregiver reporting may have been subject to self-reporting biases, and the children in the study could not self-report; thus future work should include objective measures and methodologies.

Additionally, the sample size was low and did not represent the general population of families with children on the autism spectrum; and the study occurred during the COVID-19 pandemic, which may have affected the results.

On a positive note, the researchers conclude, "This exploratory cross-sectional study found that having a service dog was associated with better child [sleep behaviors](#), suggesting that this should be a focus of increased research in this area. Specifically, research should further explore the effects of service dogs on child sleep quality, quantity, and

disturbances using objective methods."

More information: Kerri E. Rodriguez et al, The effects of service dogs for children with autism spectrum disorder and their caregivers: a cross-sectional study, *Frontiers in Psychiatry* (2024). [DOI: 10.3389/fpsyt.2024.1355970](https://doi.org/10.3389/fpsyt.2024.1355970)

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