## Dogs are More Than Just Pets

## An investigation on animal-assisted therapy and its benefits on children with ADHD as well as developing children without a learning disability.

Tag Words: animal-assisted therapy; therapy dogs; ADHD; children; dogs

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#### Abstract

Summary The prevalence of ADHD and other learning disabilities in children lately has become what some would call an epidemic. In New Jersey alone, $9 \%$ of school aged children battle ADHD in our schools. Unfortunately, current solutions such as stimulant medications pose threats to child health and development with side effects such as decreased appetite and the chance of dependence; and also are not financially effective for families. Animal-assisted therapy is a unique alternative to stimulant medications in reference to managing ADHD, as well as a healthy practice for children who are not diagnosed with a learning disability. AAT promotes child development by instilling confidence, companionship, and responsibility in both normal and ADHD children. To encourage the theory of animal-assisted therapy, Certified Therapy Dogs were brought into the classrooms of young children in order to trigger creativity and learning. The students continued to go about their daily tasks while the dogs were present, making them as natural as possible. Based on student and student teacher feedback, the dogs were a refreshing change to their day and the students were eager to have the dogs come back. (SM)


## Video Link:

http://www.youtube.com/user/DRJULIEFAGANSTUDENTS\#p/u/23/VrI4LNLgEBA

## The Issue: Animal-Assisted Therapy on Normal Childhood Development and the ADHD Epidemic.

3.1 The severity of ADHD. ADHD is known by physicians as a neurological condition based on an imbalance of chemicals in the brain. This disorder is predominantly found in children and can be diagnosed in a median range of $5 \%$ on American children; however boys are three or four times as likely to be diagnosed. This year in New Jersey, approximately $9.0 \%$ of students have been diagnosed with ADHD (http://www.cdc.gov/ncbddd/adhd/prevalence.html). This means that in an average sized school class in New Jersey of about 30 students, approximately 2.7 of those children will already have or will be diagnosed with ADHD. There are three categories to ADHD. These include ADHD, with predominantly hyperactive-impulsive behavior, ADHD,
with predominantly inattentive behavior, and ADHD, with a combination of hyperactiveimpulsive and inattentive behavior (Attention Deficit Hyperactivity Disorder). A child with ADHD who is inattentive will distribute symptoms such as: difficulty following instructions, difficulty keeping attention on work or play activities with a school environment, loses things easily, does not pay close attention to detail, disorganization, forgetfulness, and is easily distracted (1999 (revised 2006)). Furthermore, children who are diagnosed with ADHD will have symptoms regarding hyperactivity and impulsiveness including: running or climbing inappropriately, fidgety movements, loud play, interrupting conversations, trouble staying in a seat, excessive talking, and has difficulty waiting in lines or for turns (1999 (revised 2006)). So, it is rather easy to see that children diagnosed with ADHD who show even a few of those previously documented symptoms are quite the distraction to themselves, their peers, and their teachers.
3.2 Problems with the current solutions. It is commonly misconceived by the general population; mainly parents of children with ADHD that medication will solve all problems associated with ADHD. However, this is not the case. Because ADHD is a behavioral problem as well as a psychological disorder, behavioral problems need to be addressed with the same aggressiveness that the psychological problems are. Some of these problems include poor time management, common disorganization, and poor study habits. It is often misconceived that drug stimulants can control and possibly cure symptoms of ADHD; however, medications cannot tend to these poor habits and can only be treated by behavioral therapy (Attention Deficit Hyperactivity Disorder).

The most common method to controlling the chemical imbalances of AttentionDeficit/Hyperactivity Disorder among both children and adults are drugs. These drugs are Central Nervous System stimulants which are used to, "stimulate the production of neurotransmitter chemicals dopamine and noradrenaline which are in charge of self-monitoring skills" (Attention Deficit Hyperactivity Disorder). Some of these stimulants include Adderall, Ritalin, and Concerta. However, imposing drugs on children (especially of some at such young ages) could result in severe problems. A study ran by Brooke Molina and William Pelham, Jr. that was published in the Journal of Abnormal Psychology shows that children with ADHD are at a substantially higher risk for becoming drug, alcohol, and tobacco dependant by their teenage years. The study consisted of 142 adolescent children diagnosed Attention-Deficit/Hyperactivity Disorder and 100 adolescent children at corresponding ages without the disorder (Molina \& Pelham, 2003). This study was designed to clarify the chance of risk for early substance abuse among children who have been clinically diagnosed with ADHD compared to children without (Molina \& Pelham, 2003). The exact experiment tested whether or not the severity of the behavioral disorder in the children could predict their elevation of substance abuse in later years; specifically, five years later (Molina \& Pelham, 2003). The results of the experiment proved that the adolescent children who were clinically diagnosed with ADHD as a child had a higher rate of experimenting with drugs, alcohol, and tobacco. The experiment also shows that those children who do experiment with substances at a younger age are more prone to becoming dependant on the drugs (Molina \& Pelham, 2003). Specifically, children who have ADHD are three times more likely to experiment with alcohol, drugs other than marijuana, and tobacco throughout their teen years. Probands showed a percentage of $10.6 \%$ of lifetime use of illicit drugs versus the control group percentage of only $3.0 \%$ (Molina \& Pelham, 2003). Furthermore, the children
with ADHD reported significantly higher rates of daily tobacco smoking at some time in their lives. The specific reasons for these results may still be questionable; however, to a concerned parent, an alternative route for controlling ADHD other than drugs may be necessary.

However, for those families who do choose to use stimulant medication as treatment for ADHD may still run into obstacles. Quite frequently, stimulant medications such as Adderall or Ritalin and their generic forms are put on backorder due to the high volume of patients which use this medication regularly. That means that at any given time the medication may be unattainable in any form. This happens also because the DEA regulates the pharmaceutical companies and control exactly how much of the active controlled ingredient of these medications can be distributed per year. When the manufacturer believes that it may exceed its quota, they put the medication on backorder with no prior notice to the patients who depend on this medication (Iannelli, 2011). The chance of withdraw is specifically dangerous for regular users of these medications since there is such a high risk for dependence. However, withdraw is probably more dangerous for children. Typical side effects of withdraw are extreme hunger, mood swings, panic attacks, and depression and can become onset with missing only a few doses of the medication.

Another factor that inhibits the use of stimulants in treating Attention-Deficit/Hyperactivity Disorder is the dollar cost of the prescriptions. Many families are experiencing a period in their lives when financial costs need to be cut because jobs and houses are unexpectedly lost every day. The unemployment rate in New Jersey has climbed to a new high since the past sixteen years (Morley, 2008). Moreover, the number of people receiving unemployment insurance rose by a whopping 5,998 in just one week in December, 2008 (Morley, 2008). The amount of money to give to unemployed workers is decreasing and money is hard to find. This being said, it has been observed that "health care costs for a child with ADHD may be more than twice as high as costs for children without ADHD, and national estimates suggest that these costs are comparable to those for children with asthma" (Lesesne, Visser, White, 2003, p.1232). With the unemployment rate at such a high number, it can be assumed that families are seeking out cheaper methods of therapy for their children. In drastic cases, it seems nearly impossible to afford expensive medication for a child with ADHD as well as sufficient food, shelter, and clothing. Not to mention the numerous number of doctor visits needed in order to obtain a prescription for medications. Many of the stimulant medications used to treat ADHD are classified as Schedule II Controlled Substances. This means that there is a legitimate reason for prescribing this medication, but there is a serious risk for dependence. Because of this, there are laws to control the abuse of these medications such as only a 30-day prescription can be written out by the doctor for a patient at any given time. The prescriptions cannot have any refills allowed; and the prescription itself must be a hard copy handed to the pharmacist. This means that in order to obtain the medication; the patient must be examined by the prescribing doctor once every 30 days. The ultimate bill for medications can become quite unaffordable for families who have to pay copays to see their physician or do not have health insurance at all. A natural, affordable method of controlling ADHD which may come simply from a volunteer and Certified Therapy dog may be the better option.
3.3 Why use animals? Many children who suffer from ADHD are in desperate need for a positive inhibitor in their daily lives. The term positive inhibitor pertains mainly to the positive
effects that companion animals generate in humans. This includes behaviors such as increase vocabulary, increase in self-esteem, more physical activity, lower stress levels, and many more. Studies have shown ADHD in school-aged children may be directly associated with the mental status of their mothers or guardians (Lesesne, Visser, White, 2003). Children with ADHD are required extra attention in daily lives and are in desperate need of a positive reinforcement in their lives. A study in the Pediatrics journal concludes that "family members of children with ADHD were greater than 13 times more likely to report having consulted a mental health care professional in the past year when compared with families without a child with ADHD" (Lesesne, Visser, White, 2003, p.1234).

The human-animal bond is consistent throughout most of the world and many cultures have positive attitudes toward animals throughout their history. After observation of completed studies, it has been concluded that companion animals help an overwhelming amount of people by playing a role in companionship, nonjudgmental love, safety, stress reduction, mood distraction, and an alternative demand on the mental thought process (Campbell, Corbin, Campbell, 2005, p.12). Companion animals such as cats and dogs are known as calming agents who reflect positive feedback in humans. With adequate human interaction, a child's quality of life may be improved. In specific, children with learning disabilities benefit from companion animals by "becoming more responsive and optimistic, more caring and compassionate. Pets help bolster morale and self-esteem" (Campbell, Corbin, Campbell, 2005, p.465). If the child is exposed to possibly negative mental health by their guardian at home, the positive reinforcement of a companion animal would be exceptional in controlling the Attention-Deficit/Hyperactivity Disorder.
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3.4 Classifications of Working, Service, \& Therapy Dogs. There is a common misconception for the use of animals to further a person's physical, emotional, and mental psyche. This misconception is the confusion between therapy dogs used as therapeutic agents and service dogs whom which are born, bred, and trained to perform specific tasks for one person only.

Therapy dogs are simply companion animals which are considered to be docile, obedient, confident, and outgoing. These dogs complete standard obedience classes with their owners, and many also take additional instruction in order to learn and associate themselves with therapy sessions. Afterwards, the dog and that dog's owner are tested by a certified evaluator for one specific pet therapy organization. Upon completion of the certification, the dog typically receives an AKC Canine Good Citizen standing and a certification to be a Therapy Dog for that organization. The dog will always remain under ownership of their handler, and may go on various excursions to a multitude of venues such as: children's hospitals, nursing homes, psychiatric sessions, school classroom, etc. Although very well-mannered, therapy dogs are not protected under the American Disabilities Act, and are not permitted to enter "no dog policy" venues. Therapy dogs are not trained to be desensitized to people with extenuating physical or situational impairments such as guiding people with vision or hearing loss, comforting an autistic person who is experiencing an overload moment, detecting epilepsy, or alerting a diabetic of dangerously high or low blood sugar.

Service dogs, are animals which belong to a certain organization and are taught from a very young age that they are special. These dogs are typically raised from puppyhood by volunteer foster families due to the high amount of pups needed to perform a service. Upon adulthood, the pups are taken back by the organization which they are owned and complete an in depth series of medical evaluations. Once the dog has passed those evaluations, they are ready to be trained by a professional instructor. Each dog is trained to perform generally one task only. For example, a dog may either be trained to guide a blind person, or detect a seizure and warn an epileptic. It is extremely rare that a service dog would be trained to do both. Once the dog successfully completes their formal training, they are paired up with a person who needs the service that the dog will provide and the pair is ready to go together into the public setting. Service dogs almost always work with only one person; and their temperament and docility is generally not shared with the public as therapeutic means. However, when not working with the handler, service dogs are generally treated as typical companion animals and will informally provide therapeutic benefits to the family of the handler. The most important difference between the two types of working dogs are: service dogs and their handlers are protected by the Americans with Disabilities Act of 1990. This Act prohibits discrimination of people in public places based on their disability and their means of accommodation. This means that a Service Dog is permitted (and needed) to accompanying their handler anywhere and everywhere that the person travels to. This includes restaurants, work, school, planes, buildings, etc. (http://en.wikipedia.org/wiki/Americans_with_Disabilities_Act_of_1990).

The last classification of a dog capable of therapeutic work is a typical household pet. Although they may not have passed any certification tests, or they may not have been born, raised, and professionally trained to perform a specific task; these are the dogs that spend the evening sitting with you on the couch. They comfort you after a hard day at work; or sleep in with you on a weekend. They act as your personal trainer by forcing you to go out on a walk (and sometimes a run); and help you with your diet by slobbering on the treat before you can taste it. Your pet may not be special to anyone else, but they are special to you. Your pet is your child, your best friend, your social butterfly, your shoulder to cry on, your teacher, and your child's motivation. Therefore, your own pet dog (although rather casually) is absolutely classified as a therapy dog.
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3.5 What is Animal-Assisted Therapy? The main theory behind our service project is animalassisted therapy. This is a fairly new form of therapy that has started to become more popular with public education. It can be carried out in a multitude of practical forms which will be described in detail throughout. Animal-assisted therapy is not about curing diseases, it is simply about promoting positive attitudes through animals, and allowing people to find character traits within themselves such as compassion, self-control, and confidence.

Animal-assisted therapy is defined as "a goal-oriented intervention in which an animal is part of the treatment process. It is constructed by professionals who are educated on the subject of animal-assisted therapy and is designed to promote human physical, mental, social, educational, and cognitive functioning. It may be used in a variety of settings including but not limited to: group settings or individually in nature. Formal sessions are documented and evaluated" (Definition). It is used to help behavioral problems such as verbal communication, patience, and attentiveness; it is not designed to cure psychological disorders within the brain. Animal-assisted
therapy can be practiced in a professional environment such as during therapy sessions; or in a more casual environment such as simple socializations with companion animals. Personal companion pet dogs for children and adults with special needs are a prime example of animalassisted therapy on a casual level. Therefore, it is a natural form of therapy that is proven to nurture people in a variation of generations.

Not only do companion animals provide a more physical lifestyle to people, companion animals are proven to increase a person's quality of life, relieve stress, and lower blood pressure in seniors. In an article published by Sandra Barker, she writes that "females had lowered stress levels when their dogs were present compared with the presence of a human best friend or control condition" (Barker, 1999). In children, animals give a child the ability to bond with a positive being, show therapeutic intimacy, and teach docility and care. The gentleness of a companion animal can also teach responsibility and love to a child. Animals are beings that are easily communicated with. Animals listen, never criticize. And animals love unconditionally. This allows people to easily open to them and improve their own self-esteem. It is said that pets may contribute to the development of children in four specific aspects. These aspects are: basic sense of trust (through the pet's consistency), sense of autonomy and initiative (through pet's energy and exploration), sense of industry (through trainability), and sense of identity (through the companionship) (Barker, 1999).

Animal-assisted therapy originated in 1964 by Boris Levison an American child psychiatrist and was then called pet therapy (Campbell, Corbin, Campbell, 2005). Levison was a child psychiatrist who was awaiting the start of an appointment he had with one of his patients, a young boy. Levison happened to bring his dog with him to work that day and to his avail, before the session began Levison overheard the boy speaking to the dog. To Levison, this was groundbreaking because in the few months that he had been actively working with this boy he had never spoke. This was when Levison developed the idea of incorporating dogs into the equation in order to promote a more relaxed environment in hopes of achieving better results with his patients (Edenberg \& Baarda, 1995). Soon after Levison's discovery of the effectiveness of animals on children, many other psychiatrists used the pet therapy theory with their own clients. The first pet-facility program was established in 1977 at Ohio State University (Campbell, Corbin, Campbell, 2005). Although not the most common form of therapy, animalassisted therapy is a natural and unique method of therapy and may also be used as an alternative to drug stimulants.
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3.6 Physiological Effects of Animal-Assisted Therapy. The benefits of Animal-Assisted Therapy may seem like only a few minutes of bonding with a dog, but there is way more than meets the eye. Not only does petting a Therapy Dog put a smile on almost anyone's face, but it also causes physiological responses to take place. These physiological effects happen not only within the human, but within the dog as well. After petting a dog, your pituitary gland releases oxytocin, a hormone which acts as a neurotransmitter within the brain. This hormone was once only understood to be involved in stimulating labor along with milk ejection, but with recent studies, it was found to have many more effects on the body and mind (Nagasawa M, Kikusui T, Onaka T, Ohta M. 2009). When oxytocin is released, cortisol levels are decreased. When an individual is stressed, cortisol will be present in the blood stream (Haubenhofer DK, Kirchengast
S. 2007.). This suppresses the immune system, which overtime can cause an individual to become sick (or sicker). Once the cortisol levels are lower, activation of 5-HT1A receptors, otherwise known as serotonin, will occur (Haubenhofer DK, Kirchengast S. 2007.). Serotonin is mainly found in the gastrointestinal tract, central nervous system and within platelets. This neurotransmitter causes you to feel a sense of happiness and decreases stress, and in return, decreases blood pressure and heart rate. This neurotransmitter also aids in increased memory and learning functions. This is extremely important for those with ADHD due to the difficulty the brain has in remembering specific tasks and facts along with focusing on learning. Serotonin release provides a sense of being able to form a connection to others more easily, along with providing a sense of confidence in those individuals who are isolated or on the bottom of the social hierarchy chain. Social interactions change the amount of serotonin receptors present, which work against the normal response of "fight-or-flight" (Haubenhofer DK, Kirchengast S. 2007.). With the decreased need of outwardly fighting for what the individual wants, or running away from their problems in a fit of rage (as often noted by children with moderate to severe ADHD) more reserved social behavior will occur (Nagasawa M, Kikusui T, Onaka T, Ohta M. 2009.). These positive social interactions can allow students to clear their minds, focus on their work, retain more information, obtain more self confidence and have less social outbursts. Serotonin also suppresses the amygdale, which is an almond shaped lobe within the brain that is responsible for processing fear. When a fearful stimulus is present, the amygdale creates many responses such as immobility, increased respiration and increased heart rate. It is also involved in consolidating and moving short-term memories into long-term memories. When this is suppressed, you are less stressed due to not being fearful, which causes your heart rate and blood pressure to decrease, and your ability to retain information and consolidate it more successful (Franklin A, Emmison M, Haraway D, Travers M. 2007.).

When a person becomes afraid or anxious, they will become defensive. In people with ADHD, this behavior usually leads to frustration, social outburst and decreased memory retention rate (Nagasawa M, Kikusui T, Onaka T, Ohta M. 2009.). Petting and bonding with an animal can help a wide range of individuals with various circumstances, not only solely those with ADHD. Animal Assisted Therapy was proven to decrease the undesirable and agitated behaviors from those suffering from dementia as well as allowing them to have more positive social interactions on a daily basis (Beck AM, Katcher AH. 1996.). Children with autism were found to have less emotional outburst and were able to shorten the length of these outburst when a therapy dog was present. Individuals with physical disabilities in a rehabilitation center can learn to stretch their muscles by petting a dog or even throwing a ball and playing fetch. Children with ADHD were found to have a better sense of responsibility by feeling as though they are in charge of caring for the therapy dog, even if it only means petting them for a short period of time. These dogs also allow these children to burn off excess energy, which allows them to focus better when play time is over. Also, these individuals will feel a greater sense of self-esteem because they will have more positive social interactions due to the release of serotonin (Barker SB, Knisely JS, McCain NL, Best AM. 2005.). These dogs can create a bridge for others to work with those with ADHD by creating a common thread between these two individuals, along with creating more positive social experiences to help the children open up to those around them (Beck AM, Katcher AH. 1996.).
3.7 Structured AAT Sessions - A Scientific Study. Animal-assisted therapy sessions are only one of the various ways in which this form of therapy can be carried out. These include participation with a Certified Therapy Dog ranging from the presence of the animal in the room, to hands-on obedience training with the animal. The most common method AAT can be conducted with children is hands-on obedience with a Therapy Dog or companion animal. In one case study on the subject, two boys who were of ages 11 and 12 years old participated in AAT sessions once a week for twelve weeks. These boys had severe behavioral and learning disabilities and had already participated in their school's ED program which consisted of: behavior modification, group and individual counseling, direct social skills direction and an Individual Education Plan to evaluate individual academic, psychological, and social goals (Kogan, Granger, et al., 1999). Due to the lack of success in the currents programs, a therapist came in to their school and conducted one-on-one AAT sessions where the boys had to teach the dog certain commands. At the conclusion of the sessions, both boys had to show their classes what they had learned and professionals documented their progress (Kogan, Granger, et al., 19990. The results were remarkable.

The results of both boys showed dramatic improvements. Both Participants showed improvements in voice tone and eye contact ability (Kogan, Granger, et al., 1999). One boy showed specific improvements with the decreasing of negative comments, ability to give praise, and a decreased level of distractibility. The only exception to this boy's improvements was his self-talk relating to a fantasy world (Kogan, Granger, et al., 1999). However, this may be due to the fact that the self-talk relation was not really approached throughout the sessions. The other boy also showed extreme improvements. First, his posture seemed to appear more confident. He showed an improvement with his sense of control of himself and his environment (Kogan, Granger, et al., 1999). Teachers also observed a change in age-appropriate behaviors in the second boy. He also seemed to have an impressive change with peer relations, especially with that of his classmates and with the other boy participating in the sessions (Kogan, Granger, et al., 1999).

In general, both participants received positive growth mentally and emotionally throughout their AAT sessions. This is probably because AAT gives people the opportunity to practice appropriate behaviors while still maintaining control of the environment surrounding them. Therefore, AAT used properly can be a unique, natural, and effective way of controlling behavioral disorders such as Attention-Deficit/Hyperactivity Disorder. Although not the exact program, it will be apparent that this service project will be just as effective by tackling the obstacles of transition from school to session. It is anticipated that by using Certified Therapy Dogs as therapeutic agents, it will give the children (with or without ADHD) the opportunity to exhibit responsibility. It will teach the children to become patient and mellow.
3.8 But how do dogs help children without learning disabilities? Childhood development is an area of study which incorporates much complexity in its theory. There are several different contributors to childhood development such as family composition, parenting, peer relationships, and even genetics. Generally speaking, these different contributors can be separated into two categories: social-emotional development and cognitive development (Edenberg \& Baarda, 1995). Even a slight difference such as having a mother who stays at home as opposed to working a full time job; or having an older sibling who is closer in age rather than significantly
older can completely alter the way a child develops. It is quite difficult to measure the precise effect that dogs can have on child development because each child only develops once. There is no exact experiment which allows a researcher to take two of the exact same child and give one a dog and have one develop without. However, child psychiatrists have developed some concepts which investigate both direct and indirect influences that canines may have on children (Edenberg \& Baarda, 1995).

It is not far-fetched to believe that having a family dog could have a direct influence on the children in the house. One of the most obvious influences that dogs have on children is responsibility, followed by self-esteem. Children, especially young children, need to learn how to care for their pet; and this is typically taught by the parents (Edenberg \& Baarda, 1995). Eventually the child will be confident enough to carry out age appropriate tasks necessary for the care of their dog. A good example of this is allowing your four year-old child to brush the dog with a comb. The positive feedback that the child receives from their parents for successfully carrying out these small tasks promotes the child's confidence and self-esteem. This theory also holds true in the classroom. A study conducted showed that self-esteem scores in young children increased over a nine-month period when a dog was consistently brought into the classroom. These scores were particularly increased in children who originally scored low in self-esteem (Edenberg \& Baarda, 1995). Furthermore, this increased self-esteem allows children to take on greater responsibilities; encouraging them to continue to take on a greater role in the caretaking of the dog.

A dog also promotes the development of empathy and affection in children of young ages. Pets allow children to understand that another being feels emotion. This is because the child has already taken on the responsibility of the pet, and learns to understand the needs and the feelings of the pet that they take care of (Edenberg \& Baarda, 1995). Sense of affection is also promoted because the child learns to care for the pet personally; and enjoys pleasing their pet. The companionship of a dog to a child is consistent and unbreakable. In many cases, children will state that their dog is their "best friend". A dog's love is unconditional no matter what other factors come into play. A dog would never turn their friend away because of a bad grade or lack of athleticism; the human-animal bond is based on loyalty and acceptance. Because of this bond, children will show more affection towards their pet and this trait will carry over in developed relationships with humans.

Cognitive development is directly influenced by a dog. Verbal and reading skills are said to be more highly developed in children with dogs. This is probably because of the patience that a dog has allowing a child to continue practicing a certain task until it is done completely. Also, a child is forced to practice verbal skills when owning a dog because the dog is an attractive verbal stimulus (Edenberg \& Baarda, 1995). Children praise and encourage their dog as well as correct and punish him; moreover, children tend to want to communicate to others about their dog.

There are also plenty of influences that a dog indirectly inflicts on a child. The most common indirect influence is family bonding and parenting. In USA, $52 \%$ of families asked stated that they had spent significantly more quality time together after receiving their pet. Furthermore, about $70 \%$ of families said that they had more enjoyment by spending more time with their family and new pet (Edenberg \& Baarda, 1995). Bringing a dog into the household creates a
central focal point for multiple members of the family to focus on. Siblings learn to collaborate in regards to caretaking for the pet, promoting sharing and team development. Parents may also spend more time observing their children. This could potentially increase the amount of communication the child has with the parent developing stronger ties between parent and child. A dog also indirectly inflicts coping and grieving on children. This typically happens with the dog's age, illness, or death. Although a very painful experience, properly teaching a child how to cope with death is important considering it is an inevitable evil. With the death of a dog, parents would be able to show the child an appropriate form of coping with this event and also observe how the child reacts naturally to the death of their canine companion (Edenberg \& Baarda, 1995).
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3.9 Existing programs where dogs promote child learning There are many programs that exist that promote childhood development and learning skills. The majority of these programs are ones in which children read to the dogs in either a library or classroom setting. One such example of this program is through Intermountain Therapy Animals called R.E.A.D (Reading Education Assistance Dogs). This program is shown to improve literacy and communication skills along with allowing the children to find the confidence to read aloud. R.E.A.D. was the first program of its kind to emerge. The program has had such great success after its launch in 1999; it has been a model of success for other organizations to follow. The responses from not only educators, but from librarians, parents, handlers, and children have been so positive, children's books have been written about the program. Lisa Lambie, the Principal from Los Robles Elementary School located in Porterville, CA, stated "Not only do we see improvement in reading in these students, we have seen a change in their demeanor--they seem more comfortable, more confident. These are children who have every intervention possible, for years! They know they are struggling readers, and the dogs and handlers build them back up" (Lambie, 2011). The students also really enjoy the program and gain a lot from it. Craig Lampani, age 12, from Fredericksburg Virginia, says "It seems like they listen more. Mostly when you read to people they're looking around, not listening to you" (Lampani, 2011).
R.E.A.D. has each school they visit fill out an annual end of the year report which provides reading test scores in the beginning of the school year (before the dogs visited), in the middle of the school year, and at the end of the school year (where the dogs have been visiting regularly for the entire time). The test scores show a remarkable increase throughout the dogs visit. Students "M" and "E" from Martian Luther King, Jr. Elementary School located in New Mexico had remarkable results. "M's" reading score in the beginning was 197; his middle test score was 199, and his final end of the year test score was 206. "E's" test score in the beginning was 197; his middle test score was 199, and his final end of the year test score was 200 (McKinney, 2011). Every school fills one of these forms out each year for the R.E.A.D. program and they are available on the organizations website for all to see. This is also a major reason why the program has been so successful. Educators know the results don't lie, which is why they are more willing to allow these dogs to come into their school and be a part of these children's lives
(Intermountain Therapy Animals, 2011).
Another organization to promote learning for children is the Tail Waggin' Tutors Reading Program which is offered through Therapy Dogs International. This program is extremely
similar to the R.E.A.D. program. The main focus on the Tail Waggin' Tutors program is to provide a dog-friendly, relaxed atmosphere for children to be able to work on their reading skills. Those chosen for this program are those who have below average reading skills for their age group. Children in this program are often self-conscious while reading aloud in class, but gain a sense of confidence and improve their reading abilities because they know the dogs aren't judging them if they make a mistake reading a sentence, or need some extra time to figure out how to pronounce a specific word. If these children get nervous or frustrated, they are encouraged to take a break and spend time petting the dog. This eases their mind and allows them to regain their concentration and to be able to start over again with a fresh start. Children, who once got nervous and fearful about reading, can now associate opening a book to the positive experiences they have had with these Therapy Dogs (TDI, 2010).

## Service Project: Classroom Canines

4.1 How It All Began . Animal-Assisted Therapy has only just recently been recognized as being highly effective in reducing stress, managing pain, increasing attention span and allowing individuals a chance to forget about their troubles with just a simple pet from a dog. Since this form of therapy has had such positive results, it is now starting to be seen in more nontraditional settings, such as the classroom in order to help those with learning disabilities focus better. Learning skills range in any school setting and some children may need a little extra attention when trying to focus. Many children with ADHD are known for their hyperactivity, yet others are known for their lack of motivation and inattentiveness. Since this is so commonly seen in many different learning environments, we thought it would be a great community service project to help those children struggling with these problems.

We first started this project by getting our rejected Seeing Eye dogs certified as Therapy Dogs through Bright and Beautiful Therapy Dogs, Inc. as well as Therapy Dogs International. Both of these companies examine the dogs through situations that would commonly be seen in hospitals, daycares and nursing home settings. The first part of the examination begins with a test on basic obedience. This portion looks to see how well the dog knows his commands as well as responds to you as the handler. The dog is asked to sit, lie down, stay, come, and walk on a loose lead. Next the dog is approached by individuals using common hospital equipment such as a walker, crutches, and a wheel chair along with also being approached and pet by a disabled individual in a motorized wheel chair. The dog is supposed to calmly approach each situation with ease. The dog is then asked to meet and ignore other dogs in the room as well as ignore food that is placed on the floor. The final portion of the exam simulates a real hospital setting. Volunteers scream, pretend to cry, drop metal dog water dishes, drop crutches, and move around the room in a high paced way. The dogs are then asked to navigate through the chaos without being scared. Once all these potions of the exam are completed and the evaluators pass your dog, you're officially certified as a Therapy Dog team.
4.2 The "Lesson Plan". Since our two male Golden Retrievers, named Madison and Edgar, passed these Therapy Dog certifications, we figured helping childhood development as well as helping students struggling with ADHD through Animal-Assisted Therapy would be beneficial and worthwhile. First, we contacted the Director of the Douglass Day Care located on Douglass campus. After several weeks of "phone tag", we went into the classroom with their "Jellybean"
group. This is a group of 5-6 year old children who are taught by teachers, student teachers, and Psychology students at the university who are completing field work. On our first visit there, we introduced ourselves and our dogs and went over proper etiquette around dogs. We spoke about our dogs backgrounds as puppies for The Seeing Eye, Inc. and how they became therapy dogs. We then allowed them to ask us questions while coming to greet the dog in hopes of getting them as accustom to the dogs in the classroom as possible. The student then read a book while Edgar and Madison sat on the carpet with the children. We found this especially great because each student was able to put at least one hand on one of the dogs while the teacher was reading. Even though some students had to be reminded to pay attention, the dogs generally seemed to keep the attention span of the child at higher levels than normal. We left after giving them a coloring sheet to complete. Unfortunately, we did not have another chance to visit this school. We then sought out a mutual friend of ours who is currently an education major at the university and is a student teacher. We brought Madison and Edgar to a local elementary school in the New Brunswick, NJ area where she works. The school wishes to remain nameless due to protecting the identity of their students. Before each visit we met with the teacher and student teacher to discuss what the children were working on in class for that week. We used the topics they were working on to create a lesson plan we could incorporate the dogs into. During our visits, we either had the students read a short book, or practice saying the alphabet and numbers out loud to the dog, as well as performing basic mathematic problems. We were able to visit this school two times before the end of the semester; but expressed to the teacher that we are able and willing to continue visiting if she would like.

Once we entered the classroom we began by talking to the students and introducing ourselves and our Therapy Dogs. The first session we discussed how these dogs are rejected Seeing Eye dogs, and explained what a Seeing Eye dog does. After doing that, we allowed the students to ask any questions they had and then individually each child came up and were able to spend a few minutes with the dog. We also taught them the proper way to approach a dog (hand out in front, rather than approaching from overhead). All of these activities allowed the children to feel more comfortable with the presence of a dog in the classroom.

While we were allowing the students to meet the dogs, we looked to see if any of the children stand out as having a difficult time focusing on school work, or ones who are extremely shy, or extremely hyperactive. We closely observed these students within each individual session to see if their attentiveness increases or decreases. We personally noticed that individuals who seemed more reserved wouldn't personally open up to us, but began to actually talk to the dogs more and more each week. We also noticed that students who were extremely hyperactive had a calmer demeanor towards the dogs than they had to their own classmates. These were all general observations we made and we were not informed if any of the students actually had ADHD before or after our visits. We also were updated by the teacher and student teacher if any child seemed to make any positive changes within their behavior while we were not there.

Both the teachers and the student teachers noted that the children were extremely eager to have the dogs visit. They said that they would behave the best on days when the dogs were coming to visit, because they knew if they didn't act appropriately the dogs weren't going to be permitted to come back to school again. This motivated them to get their school work done in a timely
fashion. She also stated that many students who normally are shy about reading aloud were reading a book to the dog with such ease and confidence.

These visits are not only meant for observational purposes, but also to help brighten these children's day. Allowing them to interact with these amazing dogs can allow them to form happy memories that they can reflect on always. Some events that take place in a child's life can make a lasting impression on them forever. We hope that by visiting these students, we will not only help them to focus more in school, but to also create and define lasting memories.

## Coloring Sheet for School Visits



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## Editor Submissions

Dogs are more than just pets
(SA)

## Dear Editor,

After reading this passage, everyone should take the time to find a dog (whether it be your family pet, a working dog with his handler, or even a stray on the street) and thank them for acting as so much more than just a pet. Because in reality they are not the just "a four-legged fur ball that needs to eat and be walked". These animals have the ability to do amazing things including guiding the visually impaired, warning an epileptic of an oncoming seizure, promoting child development and student learning, and keeping people company when they need a friend.

Currently, there are three different classifications of dogs in reference to service and working status. First there are Service Dogs, much like blind guide dogs from The Seeing Eye, Inc., which are protected by the American Disabilities Act and have access to all public places. Then, there are certified therapy dogs which are certified through organizations throughout the state and country. These dogs are still pets at home, but passed certification tests which give them the ability to go into a building or facility where they are invited by a manager of some sort. Therapy dogs constantly visit people at nursing homes, and schools and provide emotional comfort and companionship for those who are not fortunate enough to have pets. Last, there are household pet dogs. These dogs are just as (if not more important) to any one person because he is their own. Their own pet, their own friend, their own therapist.

The theory behind psychological support of dogs on humans is called animal-assisted therapy. This concept originated in the mid-1960s and was not designed for curing disease; it is simply about promoting positive attitudes through animals, and allowing people to find character traits within themselves such as compassion, self-control, and confidence. Animal-assisted therapy is defined as a goal-oriented intervention in which an animal is part of the treatment process. It is used to help behavioral problems such as verbal communication, patience, and attentiveness; it is not designed to cure psychological disorders within the brain. It can be practiced in a professional environment such as during therapy sessions; or in a more casual environment such as simple socializations with companion animals. Personal companion pet dogs for children and adults with special needs are a prime example of animal-assisted therapy on a casual level. Therefore, it is a natural form of therapy that is proven to nurture people in a variation of generations.

As adults, it is obvious that the most concerning aspect of our lives is the health and wellbeing of our children. Well, it is satisfying to know that with the right setting dogs can be useful in promoting our children's development emotionally, socially, physically, and educationally. Dogs are consistent; and are incredibly compassionate. They don't judge, nor do they ask questions. Were you ever teased as a young child because you didn't know how to read a word aloud to the class? Or occasionally you stammered while trying to read a passage too quickly? Studies have shown that dogs have helped improve reading scores in developing children because a dog does not ridicule or criticize a child for pronouncing something incorrectly. There is no teasing or correcting, so the child builds confidence from this positive feedback. On top of all this, canines also promote a healthy lifestyle by inflicting responsibility, socialization skills, and physical activity. Incorporating a dog into your child's lifestyle will not only bring happiness to the family but; it will withoutadoubt reduce your stress level and promote a wholesome, healthy lifestyle for your child.

As I had said earlier, after reading this passage, go thank a dog. Give him a bone or a pat on the head. He'd probably appreciate a belly rub or a scratch behind the ears. We owe our dogs at least that much because throughout the years, our dogs have grown to become a much greater part of our lives than just pets. And although we've asked them to surpass all horizons and open all doors for us, they have yet to ask us for anything in return. With just a home, a friend, and an occasional belly rub, a human can have anything and everything that a dog could ever offer.
'He never makes it his business to inquire whether you are in the right or wrong, never bothers as to whether you are going up or down life's ladder, never asks whether you are rich or poor, silly or wise, sinner or saint, smart or dumb. You are his pal. That is enough for him." -Jerome K. Jerome

## An Unexpected Career Change for an Amazing Dog

(JA)
In the middle of Dance Marathon 2010, I snuck out for a few short hours to pick up my cuddly drooling fuzz ball of a Seeing Eye Puppy. After years of hard work through the Rutgers University Seeing Eye Puppy Raising Club, I had finally reached the moment that made it all worth it. I received my first Seeing Eye puppy, an 8 -week old male Golden Retriever, named

Madison. Madison got used the college lifestyle right away, living with me in a registered club apartment in the Newell Apartments. He attended classes, rode on public buses, went to sporting events, the movies, local malls and just about everywhere else. He was my second shadow and loved having that title. After being rejected for medical reasons in early 2011, his busy college life ceased immediately. He no longer had the same privileges and was confined to living in my house as an ordinary pet. It was not long until Madison became depressed (yes, dogs can become depressed!). Taking him for walks and infrequent visits to the dog park simply were not enough. He needed more, and so did I. One morning after a routine walk, Madison and I were approached by a young child who wanted to pet him. She sat on the ground and Madison lay down and gently rested his head on her lap. It was then I realized that Madison was an excellent candidate for Animal-Assisted Therapy.

According to the encyclopedia of Alternative Medicine, Animal-Assisted Therapy is defined as utilizing "trained animals and handlers to achieve specific physical, social, cognitive, and emotional goals with patients". These animals are not service dogs and therefore do not have the same privileges and rights that other animals may have. Service dogs are professionally trained for a specific task and have a job they must do on a daily basis. Therapy dogs are allowed to visit hospitals, nursing homes, and many other institutions where they dogs are requested, whereas service dogs belong to one individual and are with them for their entire working life. Therapy dogs are certified through many different organizations which ensure that the animal meets the qualifications needed to visit all types of people. These dogs must be comfortable with all types of hospital equipment including wheelchairs, crutches, beeping monitors, and loud noises. They must be able to handle the rough play of a child, be affectionate when desired, and back away if needed. These pets are even used in libraries to help children learning to read. Reading with a dog provides a judgment-free zone where children will not feel embarrassed when they have to sound out a few words. They know that the pups will listen regardless of their reading level. Not only do these dogs have to be able to sit patiently and quietly but it is crucial that they are comfortable with all types of hospital equipment like crutches and walkers. Therapy dogs are also used to provide company for those in nursing homes or assisted living facilities. Many people are unable to live with their own pets, so having a dog visit allows them to have a chance to have a pet again, even if it is only for a short time.

The benefits of Animal-Assisted Therapy may seem like only a few minutes of bonding with a dog, but there is way more than meets the eye. Not only does petting an Animal Assisted Therapy Dog put a smile on almost anyone's face, but it also causes physiological responses to take place. These physiological effects happen not only within the human, but within the dog as well. It has been scientifically proven that animals help decrease stress, increase learning functions, and help cheer up those who need it most. Petting a dog releases hormones in your brain that trigger a response decreasing stress levels and increasing a sense of wellbeing. This is extremely beneficial for those who are exposed to high stress environments, like hospitals, or for those who are going through a rough time.

Madison's prior experiences as a Seeing Eye dog In-Training exposed him to many situations that he would face in the healthcare setting. He was regularly exposed to wheelchairs, loud noises, crowded rooms and large groups of children. He frequently attended club presentations at local schools for large assemblies of children ranging from Kindergarten all the way to high school. After the presentations he would calmly roll over on his back and allowed what seemed to be hundreds of children rub his belly. He was ready to become a Therapy Dog from day one, whether he knew it or not. After a little research, some training at the park, and a
quick handling exam, Madison and I became a certified canine and handler team for Bright and Beautiful Therapy Dogs.

As a senior looking back at my four years in New Brunswick, I strongly encourage everyone, especially younger students, to find a club and pursue their interests at Rutgers. I have become a better person thanks to the rewarding opportunities I found with the Seeing Eye and Bright and Beautiful and I have Rutgers to thank for allowing students to express themselves through diverse student-run organizations.

