

The Impact of Animal Assisted Education on School Experience:

A Phenomenological Study

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Abstract

This phenomenological study explored the impact of animal assisted education on the lived experiences of current students at Greely High School in Cumberland, Maine. Empowerment theory formed the base of the researcher's lens for this project, founded in the premise that empowerment theory is a process by which students develop increased skills in order to take control of their lives. This in turn will theoretically aid them achieve personal goals and aspirations while maximising the quality of their lives. Literature has consistently demonstrated that animals reduce the stress and anxiety of the humans they interact with. This phenomenological study included individual interviews to explore the experiences of eight high-school aged students that have participated in the animal assisted education program at Greely High School. Three main themes emerged in analysis: emotional impact, classroom impact and student involvement. Future research needs should focus on this field of study especially pertaining to the high school population in relation to social-emotional learning.

Keywords: animal assisted education, phenomenology, high school, empowerment

The Impact of Animal Assisted Education on School Experience:
A Phenomenological Study

As a former Greely High School student I have a first hand knowledge and experience of the multiple psychological and psychological benefits that are associated with animal assisted education (AAE). Nothing made my day better than walking into class and getting to see the black lab named Jasmine's smiling face. Dogs allow high schoolers to relate on a non-judgemental level. This is extremely beneficial to the students at Greely High School as shown by this study. AAE would also be beneficial to other students in other schools across the state and country as well. Among the earliest proponents of animal-assisted work with children was Boris Levinson, whose dog, Jingles, served as his "co-therapist," helping him to develop a trusting relationship with his young clients (O'Callaghan, 2008). The number and type of interventions that pair people with animals have recently grown rapidly. Although these interventions share the inclusion of an animal, they differ with respect to the role of the animal. Animal assisted therapy is a formal part of treatment process that is typically provided by a health or human service professional. The animal's inclusion in the therapeutic process is intended to improve the client's physical, social, emotional and/or cognitive functioning (Mangalavite, 2014). This can be supported through the literature. Current research indicates that therapy dogs may offer physiological, emotional, social, and physical support for children (Friesen, 2010). This research seeks to find the essence of the lived experiences of the students in the AAE program at Greely High School. The researcher plans on sharing the results of this study at a research symposium at the University of Southern Maine in order to make aware of this program and to advocate to get more programs like this.

Literature Review

Problem

Research has shown the impact that animals have on humans both psychologically and physiologically. Unfortunately there is a lack of research specifically in the high school setting in relation to socio-emotional learning. Thus, access is a hurdle for providers to tackle. As of right now the AAE program at Greely High School is the only program of this nature within the entire state of Maine. Hesitations about using animals, specifically canines, include: allergies, harm to the animal or human, and the risk factors associated with this. The program director has a stringent risk management plan that has worked extremely well for over 20 years. This risk management program has never had to be utilized and the program director Dr. Denise Allen has reported never having an issue.

Background

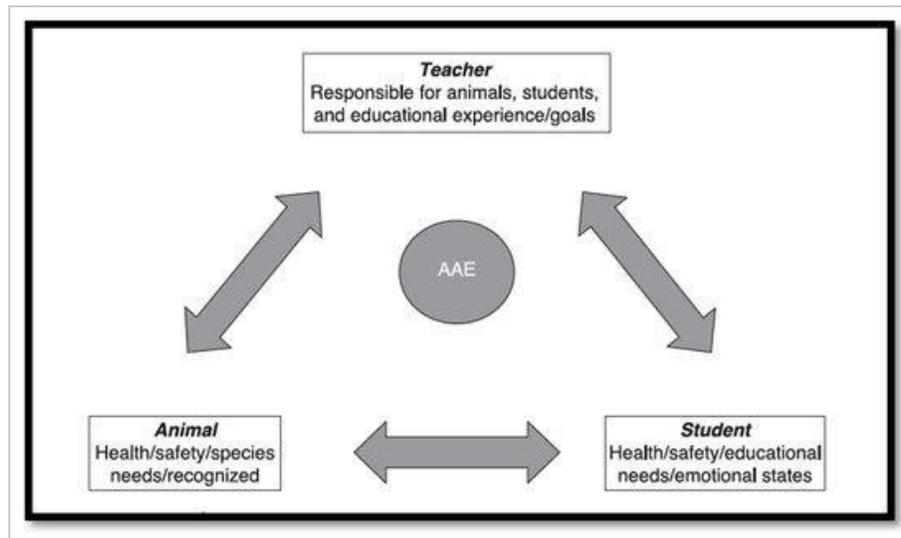
Many people refer to our canine companions as man's best friend. The adaptation and change in therapy models has sparked a new revolution in education that includes our four legged best friends. Previous research has shown that animals reduce the stress and anxiety of the humans they interact with. The use of animals as part of educational and therapeutic interventions for humans has greatly increased over recent years and has come to include many types of animals such as dogs, guinea pigs, rabbits, horses, and even farm animals (Brelsford, Meints, Gee, & Pfeffer, 2017). There are psychological and physiological effects to interacting with dogs. Animal-assisted interactions have been shown to have direct benefits related to the psychological and physiological health of humans in a variety of capacities (Brelsford, Meints,

Gee, & Pfeffer, 2017). This review will explore the practices and scope of animal-assisted education, which is a burgeoning area of research.

Definitions

Understanding and defining the difference between Animal-Assisted Education (AAE) and Animal-Assisted Interventions (AAI) is imperative. AAE is a planned and structured intervention directed and/or delivered by educational and related service professional with specific academic or educational goals. As seen in Figure 1, AAE describes the interactions between the student and dog on an educational level. The dogs are used as an aid in the education process.

AAI describes the use of different species and breeds of animals in diverse manners that is directly beneficial to humans. The American Kennel Club (2019) defines a service dog as “a dog that helps individuals perform tasks they cannot do for themselves because of a disability” (American Kennel Club, 2019, Para 1). Currently the Americans with Disabilities Act governs the use of service dogs in public places. There are legal means that are associated with services dogs. Service dogs are legally allowed in any public space. A therapy dog is there to be petted and provide comfort and affection to individuals at various places that request its visits. Therapy dogs have restrictions and an individual should always check ahead of time before bringing a therapy dog anywhere.

Figure 1. AAE interactions.

Note. Reprinted from Handbook of *Animal-Assisted therapy*, 4th ed. (pp. 195–210), by Gee, N.R., Fine, A. & Schuck, S., 2015, Cambridge, MA: Academic Press.

Language: The use of language surrounding this nature of work needs to be taken into consideration. Dogs are not to be “used” because they are a living breathing being and not objects. It is important to use language that does not objectify the animals we work with no matter what type or breed of animal. When working with humans and animals it is good to remain mindful to keep the best interest of everyone involved.

Psychological Impact

Children with disabilities. One focus in the literature has been on the use of dogs with children diagnosed with behavioral issues, anxiety and or autism. For example, O’Haire (2013) found that the presence of an animal in general can significantly increase positive social behaviors among children with autism spectrum disorder. A visiting therapy dog promotes

greater self-esteem and focused interaction with other students and teachers. It has been empirically proven that therapy dogs stimulate memory and problem-solving skills.

A recent national survey of adolescent mental health found that about eight to ten percent of teens ages thirteen to eighteen have an anxiety disorder. A therapy dog can lift moods in the classroom, often provoking laughter. The therapy dog is also there to offer friendship and a shoulder to lean on for students. While therapy dogs have calming effects and reduced stress levels in most students, children with disabilities can present a unique challenge, this is because of the wide range of intensity, behaviors these type of students present can be unpredictable. The classroom can be a stressful and overwhelming environment due to social challenges and peer pressure. Therapy dogs can reduce the effect of this allowing a child with autism to feel more at ease and open to social behavior.

Researchers have found that children with autism are more social when playing with therapy dogs as opposed to toys. The kindness and the gentleness of therapy dogs help children with autism simply by just being there. The child may not be able to speak or may want to engage in compulsive behavior and the therapy dog is by his/her side, ready to engage with them. Melson (2003) suggests that companion animals might stimulate a young child's cognitive growth through curiosity and learning while also providing a source of emotional support. A child's interactions with animals are carried out not in a social vacuum but, rather, as part of a larger social network of interactions; pets can be a catalyst for social engagement and cohesiveness in larger social settings, such as classrooms, schools, and neighborhoods. Animals in classroom settings may facilitate peer social interactions, including for children with social skill deficits associated with developmental disorders, such as ASD.

Higher education. A growing number of colleges across the country are starting to offer pet therapy programs that bring therapy dogs to students that need a break from the pressures of school. A large population of college students are living away from home for the first time and appreciate the comfort that can be brought by therapy dogs. The programs are typically volunteer-based, and are cost-effective as they usually do not cost colleges any money at all. Recently the Lillian Goldman Law Library at Yale gained national attention in the spring of 2011 because of their use of therapy dogs. Attending law school is extremely stressful. Some of the students were new to the rigors that come with the territory of going to law school and used therapy dogs to adjust to new teaching methods. During the week of finals the University that this researcher currently attends at this time utilizes therapy dogs.

Social-Emotional learning. There is a current school trend of including social-emotional learning (SEL) as part of everyday curriculum. SEL takes student's emotions into consideration. Payton et al. (2008) describes this phenomena as including the ability to “recognize and manage their emotions; set and achieve positive goals; demonstrate caring and concern for others; establish and maintain positive relationships; make responsible decisions; and handle interpersonal situations effectively (pg.1). Research has connected multiple positive student outcomes to SEL, which includes increases in happiness (Weare, 2000), self-efficacy beliefs (Zins & Elias, 2007), academic performance (Durlak et al., 2011) and positive social behavior (Durlak et al., 2011). Social-emotional learning allows children to learn and grow in a way that teaches them important social skills within the school environment.

Physiological Impact

Many studies have since linked AAI with positive health outcomes. Positive outcomes have been found in pain management, in the treatment of depression, and in neurological rehabilitation studies (Munoz Lasa et al., 2015). These positive outcomes include lower levels of stress, anxiety and even lower blood pressure. Friedmann, Katcher, Lynch, and Thomas (1980) linked pet ownership to improved cardiovascular health and demonstrated it to be a significant predictor of survival in patients one year after heart attack. Another example is that children reported a reduction in pain in the presence of an animal, and positive effects have been observed in children and adolescents hospitalized for acute mental disorders, reducing emotional and behavioral symptoms and increasing global competence and psychological functioning (Bresfold, 2017).

Empowerment Theory

Empowerment is understood as an intentional process that includes the initiative and action of persons in gaining power, taking over control in their lives and gaining a greater access to social resources with the aim of achieving personal and collective goals. In the process of empowerment, we are helping users to become self aware and to more considerably expand their influence and power in society (Radovic, 2008). Empowerment is a tool that social workers and other practitioners use in order to “*empower*” clients with the purpose to increase resources, self-esteem, and confidence. It also enables the client by identifying strengths that the client already possesses and it also allows the opportunity for the practitioner to encourage their client. Thus building on the strengths that the client identifies themselves. Empowerment theory helps clients identify their own strengths by raising consciousness. Practitioners aid the individual to

motivate them to make changes in the direction in their own life as well as helping the individual to recognize their own power and self-worth. Empowerment theory focuses on the positive aspects of the client rather than the negative.

In sum this review has gone over the definition of animal assisted education, the skills and tools used in animal assisted education as well as the history and current use of animal assisted education programs in schools. Previous literature has shown the psychological and physiological outcomes that interacting with a dog can have. It was also mentioned how AAE and AAI relate to social-emotional learning and empowerment theory. This research is being conducted in hopes that this will show the need for more programs that include animal assisted education. Animal assisted education promotes positive interactions using treatment modalities, as well as improving social skills and communication.

Methods

Study Overview

This is a phenomenological qualitative study. The aim of this study was to research the lived experiences of the students in the AAE program at Greely High School. Phenomenology was the best approach due to the fact that there was a time constraint and Greely is a small school in rural Maine. A priori assumptions included the psychological and physiological impact that the dogs might have on students. The nature of this study included human subjects which required IRB approval from the University of Southern Maine (USM). Approval obtained by USM and Greely High School before involving any participants. Students were referred to the researcher based on interest in participation by the program director Dr. Denise Allen.

Recruitment involved the program director reading a script provided by the researcher during classes to gather interest (see Appendix A).

Students were directed to express interest to her at an appropriate time after class so that she could connect them with the researcher. The participants were then scheduled a day and time to interview with the researcher. Parental consent forms were provided by the researcher to the program director to hand out to interested students in order to obtain parental permission. The forms were brought home with students and signed by a parent or legal guardian. Interviews were conducted on an individual basis. The interviews took place in the office of the program director. Answers were written down and recorded by the researcher. Students would not be interviewed without parental consent and student assent. Students that were age 18 were able to be interviewed without parent or legal guardian considering that in the state of Maine you are a legal adult that can consent at age 18.

Animal Assisted Education At Greely High School

Program overview. The animal assisted education program at Greely High School started in 2001. The goal of the program is to maximize student potential through animal assisted education opportunities. The dog's primary role was to work with special education students, in order to aid them reach academic, physical and occupational therapy goals. Students have also worked with the dogs through a reverse mentoring program. Student's learn dog handling skills and bring the dogs to elementary school in order to work with students there alongside an educational technician. Denise Allen the program founder and director expressed that she "provides a safe place for students to just be teenagers, which can be really hard sometimes. And

to me that's more important than the subject that I teach." The mission of this program is to "enhance student engagement, facilitate social and emotional learning, and amplify a positive school climate" (Allen, 2019, 1). This program absorbs no funding from the school and all costs associated are provided by Dr. Allen.

Program director. Denise Allen is the director and founder of the Animal Assisted Education program at Greely High School. Denise has earned her doctorate in health education at Columbia University with a specialty tract in health behavior, and positive psychology, She is a nationally recognized, licensed, National Board Certified Teacher of health education, and life sciences. Nineteen of her twenty-five years of professional teaching have been with a therapy dog as her co-pilot in the classroom (Allen, 2019, 1).

Demographics. Greely High School is part of Maine School Administrative District #51. The community, a suburb of Portland, includes the towns of Cumberland and North Yarmouth. Its population of 10,000 is committed to high academic standards. Greely High School is a rigorous public secondary school with a comprehensive curriculum serving grades nine through twelve. The high school and district are committed to academic excellence guided by MSAD #51 mission statement. The enrollment is approximately 648 students. Greely has a professional teaching staff of 76. Greely has reported that 79% of the teachers have advanced degrees. Greely is the second of three schools in the state of Maine to offer the International Baccalaureate Programme (Hoffman, 2018).

Accreditation and Graduation rate. Greely High School is accredited by the New England Association of Schools and Colleges. We have been a Silver Medalist School from U.S.

News and World Report for the last seven consecutive years (Hoffman, 2018). Greely has a significant high graduation rate of 98% according to US News (2019). Greely is ranked high nationally as well as within the state. This high graduation rate is attributed to multiple aspects of this high school. One may possibly be the AAE program in place there.

Participants

There were eight participants in this research study. Participants ranged in age from fourteen to eighteen. 100% percent of the participants identified as Caucasian. Four students identified as female, three identified as male and one student identified as non-binary (see Figure 2). Figure 2 is a graph describing the gender distributions of the sample compared to the entire high school. 100% of the students were from the local area of Cumberland, Maine. All participants were either current or former students involved in the AAE program in some way. The students work with the therapy dogs in multiple capacities.

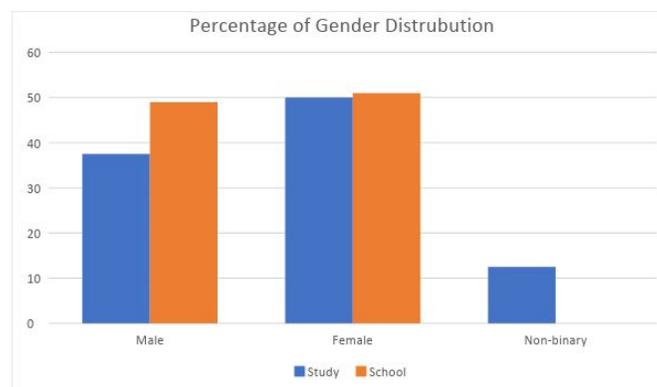


Figure 2. Percentage of gender distribution. By H. Balvin, 2019.

Eligibility and Recruitment

All students in the classroom where therapy dogs are used were eligible to participate. The director of the program in the classroom shared information about the project and invited interested students to participate. The researcher followed up with interested students to explain the project further and send home the parental consent form. Given the chosen method and the available time frame to complete the project, a small sample size was appropriate. The researcher hoped to interview six to eight students. No data from this study was excluded. There was a total of 11 responses from students interested in participating. Eight students were available to participate and conduct interviews with the researcher. Three students were turned away due to conflicting schedules.

Procedures

Confidentiality

This study and all materials were approved by the Institutional Review Board at the University of Southern Maine. Since this study involved minors assent was also given by the minor before the start of each interview. At the beginning of each interview the researcher reviewed the assent form with the student and obtained a signature. This gave the participants the ability to ask any questions they may have of the researcher about they study. Participants were asked to read the assent form and take with them. In this assent form, they were instructed that continuing on and participating in the interview was taken as a sign of their informed assent. Copies were made available.

Students were also clearly aware that participation was completely voluntary and they could stop at any time with no repercussions to them at this time or in the future. As part of the nature of working ethically with humans the researcher is a mandated reporter. This means that if certain things came up during the interview the researcher is legally obligated to report that information to the appropriate authorities. Confidentiality would be upheld by assigning numbers to each interview. Students were also made aware that due to the nature of the AAE program some topics may come up that may be a struggle for students to talk about. The members of the counseling department were available after the interviews to discuss the process with students if necessary.

Instruments

Each participant was given a brief introduction to the research and how the researcher was planning on sharing the outcomes of this study. Interviews took place at Greely High School in the office of the program director. Interviews averaged 25 minutes, with the shortest lasting 20 minutes and the longest 35 minutes. Questions were developed based on literature surrounding phenomenology and lived experiences. There were 15 interview questions. For the full list of interview questions (see Appendix B). Examples of questions included, “how long have you been in the animal assisted education program?”, and “how are you involved in the animal assisted education program?”. Categories of questions included demographic information and questions about the students lived experiences while participating in the animal assisted education program.

Analysis

Bracketing. The nature of a phenomenology project includes starting the process of analysis by bracketing. Bracketing involved the researcher writing about their own experiences and biases along with any preconceived ideas about the topic at hand of AAE. It is important for the researcher because of the methodology used to consistently consider if the researcher was reacting to the data itself or to your preconceived ideas. The researcher bracketed about her own experience in the AAE program at Greely High School. Things that were written down included “feelings of happiness whenever the dog was there in the room”, and “feeling a sense of safety.” Jasmine was the therapy dog back when the researcher was a student. She is the black lab that started the program. The researcher did write about possibly being biased as a former student. The researcher did strategically tell the students to make them feel more comfortable during the interview and wanted to relate to them on a human level. Thus disclosure was done intentionally and without harm to any of the participants.

Transcribing. All of the eight interviews were transcribed by the researcher.. After the interviews were transcribed the researcher then went through the transcripts and found the significant statements. These significant statements were any statement that the researcher found to be significant about the lived experiences of the students while they were participating in the program. Anytime they mentioned how they interacted with the dog or what the experience was like having the dog in the classroom. Interview transcripts were read and scanned for significant statements multiple times by the researcher as well as the over-seeing professor. Table 1 depicts examples of significant statement. The next step after pulling out the significant statements from

the eight interviews was to boil them down to Meaning units (MUs). MU's can be described as self-definable, discrete segments of expression about the individual aspects of the participant's experience while in the program of study. MU's were then constructed into themes. Themes aided to emphasize or pinpoint patterns within the data. The researcher recognized these patterns or themes across all datasets or in this case transcripts that are important to the phenomenon. Themes reduce the MU's to recognizable sentences conveying a discrete expression of the student's lived experiences. The themes were then analyzed into one sentence to come up with the essence of the lived experience of this phenomena.

Table 1. Selected Examples of Significant Statements	
<i>Significant Statement</i>	<i>Formulated Meaning</i>
Having the dogs in the classroom makes me feel more secure. Like less of a classroom and more of a safe space. It lightens the mood if your having a bad day or something.	Having the dogs in classroom helps to create a safe environment.
The dogs made it a much nicer classroom to go into. Less stressful and more mellow.	Students experience less stress with the dogs in the classroom.
Animals are very therapeutic. A good distraction from whatever was upsetting you. I looked forward much more to going to school. It made is easier to stay in school instead of leaving or not going at all.	Students look forward to going to school to see the dogs.
This program helped me my sophomore year. I had a falling out with a friend. After that I was angry all the time. It was helpful to come see Jade. Helps getting over the hump of not being angry anymore. Dogs make me happy. I love dogs.	Having the dogs available helps students reduce anger.

Figure 3. Selected Examples of Significant Statements. By H. Balvin, 2019.

Table 2. Example of Two Theme Clusters	
Safety	Reduces Stress
Security	Reduces Anxiety
Welcoming environment	

Figure 4. Examples of Two Theme Clusters. By H. Balvin, 2019.

Findings

The essence of the AAE program at Greely High School is that the students genuinely enjoy having dogs in the classroom and they believe more students should have more access to programs like this. Three primary themes emerged through analysis: emotional impact, classroom impact and student involvement. As a result of this, the findings and corresponding themes are primarily split into three sections, emotional impact, classroom impact and student involvement. Findings were compiled into a poster and shared with the public. This was presented at the annual research symposium “Thinking Matters” on April 19th at the University of Southern Maine. Members of the public were able to view the poster presented by the researcher and ask any questions about the research. The program director was also there to ask any questions by the public about the program.

Emotional Impact

Overall, students described that having canines in the classroom had a significant emotional impact on the students. Every single student reported some sort of emotional impact from being apart of this program. This emerged in the way of student's verbalizing things like " I feel safe," and " it reminds me of home." This theme is related to participant's reaction to a question about how having the dogs in the classroom makes them feel. Even though responses from students are varied, all of them share a common message — they genuinely enjoyed having the dogs as a part of the classroom environment. One student sharing an experience said that "having the dogs in the classroom makes me feel more secure. Like less of a classroom and more of a safe space. It lightens the mood if you're having a bad day or something."The AAE program acts as an emotional outlet for student. Students reported feelings of reduced stress and anxiety. "I feel like my anxiety is less when I have the dog with me." The AAE program provides a way for students to relieve the stress and anxiety that they feel even if it's just temporary. My personal testimony is that coming to class after a hard day and seeing Jasmine's happy face made the classroom environment less anxiety inducing. In a world of Facebook and Instagram this provides a less stimulating environment for students to have a break from the everyday stress of school.

Classroom Environment

Creating a sense of safety in the classroom is vitally important. Students need to feel safe in the environment that they are in, in order to learn and grow. Safety means that the students do not feel threatened in any manner. Safety includes being free from physical harm but

psychological harm as well. Having dogs as a part of the classroom brings a sense of safety to the classroom that otherwise would not have been there before. After being asked about their experience a respondent account exclaimed “it makes me feel more comfortable and able to open up more, it provides a safer environment, Dogs bring you and sense of safety and stuff.” Every single student during the interviews described some sort of sense of well-being that made them feel comfortable in this classroom. Some of the student’s directly said the word “safety” others described it as a sense of security of feeling of home. Security and safety are words that can be used interchangeably. When students are using words like this it means that they are comfortable in the environment that they are in.

Student involvement

A majority of students reported that they become more involved since participating in the AAE program at Greely High School. During an interview there was a student account detailing how the program made them want to go to school because they look forward to going to school and that it made it easier for them to stay attending school rather than leaving part way through the day or not even attending at all. This response was not expected but a good outcome. “I looked forward much more to going to school. It made is easier to stay in school instead of leaving or not going at all.” Another aspect of student involvement is that this program allows student to learn social cues and skills as well as utilize the dogs to teach other students. Responses varied such as “Dr. Allen lets me help train them.” or this student's response when asked about involvement:

I was involved when I was in health class. I worked with other students and when students would come up from the middle school and elementary school. I worked with a group of 4th grade girls who would come up and hangout. I would help them learn sign language and teach the dogs commands. We would also take dogs for walk. I helped facilitate the group.

Student's expressed increased involvement. A number of students worked with the therapy dog with younger students in the district as part of the "Paws for a Cause" program. Other students were part of other programs such as a lunch group.

Discussion

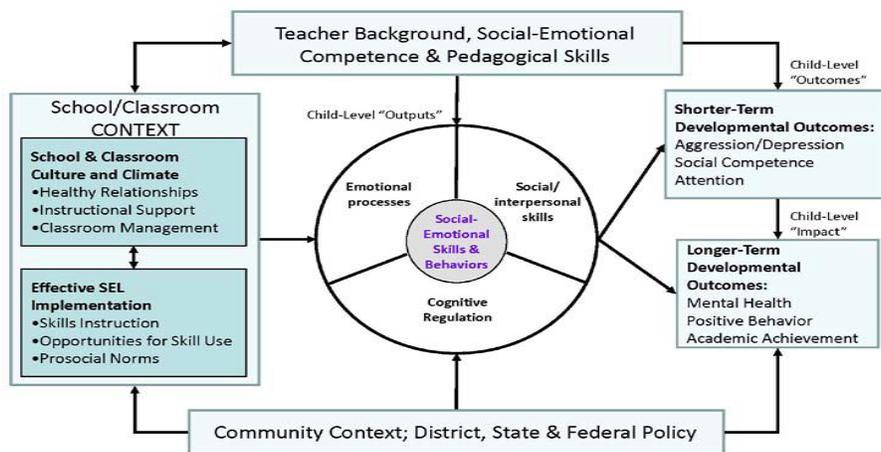
Psychological and Physiological Impact

As students reported that the experience of having the dogs in the classroom reduced their stress and anxiety and increases student involvement. This is significant as this correlates to the previous research. Past examples have shown that there is a significant impact that canines have on humans psychical and emotional well being. Research done by (Grajfoner, Harte, Potter, & McGuigan. 2017) indicates that students show significantly lower mental health functioning, and higher levels of stress, in comparison to their non-student peers. Creating a sense of safety is especially important during these modern times of increased violence among schools.(Beetz, 2013, p. 1) describes that "one intended outcome of AAE to facilitate a calm classroom atmosphere, and provide prompts for engagement in the classroom." This is exactly what the students that were interviewed described in detail about their experiences. The findings of this

research study depicted qualitative data that therapy dogs reduce levels of stress and anxiety. This is from first hand account and reports from current and former students of the program.

Social-emotional learning. The therapy dogs aid in teaching the students at Greeley High School significant social skills and functional communication skills. Social-emotional learning skills fosters these communication skills. Schools are an important context for children’s social and emotional development. In classrooms and other school settings, children and adolescents need to have skills such as managing negative emotions, being calm and focused, following directions, and navigating relationships with peers (Jones & Boufford, 2012).

Figure 5. Image depicting social emotional learning process



Note. Reprinted from *Social Work Report*, 4th ed. (pp.1-33), by Jones, S.M., & Bouffard, S.M., 2012, Washington. D.C.: Society for Research in Child Development

Recommendations

Recommendations to Greely High School would be to conduct further research in order to gain quantitative data about this program. This would furthermore indicate the outcomes associated with the program. Advocating for and spreading the word about this program would also be vital to the future of this program as well as others. Helping other schools in the area would be beneficial in that it would expand this program to other schools. Not only could this benefit the community of Cumberland, Maine but it could impact the surrounding area. Continuing all the great work that is already in place would be vital to the continuation of the program.

Limitations

There were some significant limitations to this study. The researcher had to exclude some interested students due to capacity. Demographically speaking a major limitation would be since Greely High School is demographically 95% caucasian, the researcher was not able to get a sample that was inclusive of races/ethnicities other than caucasian. If the demographics were ethnically and racially diverse the findings may look quite different. Another limitation was time constraint as this needed to be completed in a certain amount of time. Lack of funding would be considered a limitation as well. The researcher was not able to compensate any participants or the time that they spend in the interview. Availability on the students end proved to be a challenge as interviews had to be done during school hours. The researcher would like to note that this was a small sample of a small school in rural Maine. Should this be done in an urban area the findings may be significantly different.

Implications

Future Direction In Research

Future research should include as stated previously specifically should focus on more diverse populations. Quantitative research would be beneficial for data specifically about the human-animal interactions. There has been plenty of research in this field of study but not in the capacity of looking into using AAE in high school classrooms. More programs like this should be reinstated in classrooms around the United States. Every single student reported benefits from being involved in this program as well as advocating that more schools should offers programs like this. One respondents account described how their friends in other school districts would like to be involved in a program such as this one. One student remarked “I have friends in the other districts, and they don’t have them. They say, “we want that at our school.” A lot of people don’t think that they could benefit but they could. I don’t need to be involved but I still benefit from it. You don’t realize it helps until you try it.”However, there is an overall lack of knowledge regarding standards and requirements that would increase the safety and effectiveness of these programs.” (Haggerty & Mueller, 2017).

While research is growing on AAIs, more rigorous studies must be done to evaluate outcomes for both the people and animals participating in these interventions. Analyzing the interactions between the students and animals may prove to help provide a deeper insight into the relationship and the resulting beneficial effects which include direct physiological outcomes. A deeper understanding of the bonding and attachment processes involved during child and animal interactions could be informed through ethological data, enabling researchers to better

understand the beneficial effects and ultimately to clarify whether certain children may benefit from interactions more than others. Most of the studies involved dogs, it would be interesting to investigate further if different dog characteristics (e.g., breeds, temperaments, and sizes) and different types of animals influence the effects. Is a rabbit or guinea pig as effective as a dog? Does the impact of HAI depend on participants' previous experience with different animal types? Hence, rigorously designed studies are needed that focus especially on the effects of duration and frequency of interventions, quality and quantity of interactions with different populations, as well as on the effects of different types of animals.

Conclusion

In conclusion this researcher explored the lived experiences of the current and former students of the AAE program at Greely High School in Cumberland, ME. Previous research was explored to gain an understanding of past research with AAE and AAI. Overall the students shared that they thoroughly enjoyed working with the dog and in different capacities. Three main themes were found of emotional impact, classroom impact and student involvement. This research builds on previous research and supports current research that indicates therapy dogs may offer physiological, emotional, social, and physical support for children. (Friesen, 2010). Future research should focus on gaining a holistic and diverse perspective of different regions and demographics associated with the use of therapy dogs in schools. The researcher would like to reiterate that this is one small sample study of one program in rural Maine. This research should serve as a support to advocate for more programs like this across the country.

Author Notes

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Appendix A.

Recruitment letter

Hi Students,

As part of the animal assisted education program, you may be a part of a researcher opportunity. My former student Holly Balvin is a graduate student at the University of Southern Maine. She is researching the animal assisted education program at Greely High School. She is looking to find if the animal assisted education program positively affects student experience here at Greely High School. You do not have to participate. Participation includes an interview with the researcher that should take 1 hour. You will not receive anything for participation and there is no impact for not participating. This is voluntary and you may stop at any time during the process. She plans on coming in January and conducting these interviews during class.

If you would like to participate please let me know and see me individually after class.

Appendix B.

Interview Questions

What grade are you in?

How long have you been attending Greely?

How old are you?

What gender do you identify with?

What ethnicity do you identify with?

What do you like about Greely High School?

What do you not like about Greely High School?

How long have you been in the animal assisted education program?

How are you involved in the animal assisted education program?

What does a typical day look like in the classroom?

How do you interact with the dogs in the classroom?

How does having the dogs in the classroom make you feel?

How has the program enhanced your experience while at Greely High School?

How have you benefited from the program?

Do you think other schools should have a program like this?

Appendix C.

Photo of Dr. Denise Allen (Left), Jade (middle), and Holly Balvin (Right) at Thinking Matter research symposium at The University of Southern Maine. Photo provided by Dr. Denise Allen.

