

VANCOUVER ISLAND UNIVERSITY

**Animal-Assisted Intervention Impacts Emotional Behaviour Disorders: A
Website to Further Professional Development of Using Animals in Schools**

by

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Abstract

Although animal-assisted intervention (AAI) is not a new intervention type for the rehabilitation of individuals (both physically and emotionally), it is a research topic that deserves more focus, especially in school settings. This project contains information about what Emotional Behavioural Disorders (EBD) are, the need and importance of self-regulation, terminology within animal-assisted intervention, current research, and ways to implement this type of intervention effectively. The main goals of the professional development day in the form of a website is to provide a resource for educators who have been interested in such an intervention but were unsure as to how to approach it and are seeking more in-depth information. This website also provides local supports that can assist a teacher on their journey of animal-assisted intervention. The website was created in Weebly and can be found at:

<https://animalassistedintervention.weebly.com>

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Anna Canby

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Chapter One: Introduction

“When people face real adversity, affection from a pet takes on new meaning (Beck & Katcher, 1996, p.38).”

This chapter highlights my inspiration for a graduate applied project regarding the topic animal-assisted intervention to support emotional behavioural disorders. This chapter begins by introducing and defining Emotional Behavioural Disorders (EBD), self-regulation, and animal-assisted intervention, which provide the foundation for the project. Next, the chapter explains the current problem in today’s classroom and how my project will address these concerns. I share my personal connections to the topic with the impacts of my travels overseas, where I was first exposed to animal therapy within a school setting. I reflect on my teaching years thus far and the common challenges I have encountered in the classroom. A brief overview of the project is provided and will be expanded on in chapter three. Finally, this chapter defines critical terms used in animal-assisted intervention to ensure consistency and understanding throughout the paper.

Current Challenges within the Classroom

The changing classroom environment has many different factors regarding its evolution. It is only natural for educators to change their practice according to the evolving classroom. The need for differentiation, and looking towards varying interventions is driven by the following explanation by Tomlinson (2016):

There was a time when school was not the diverse mix it is today. Children with physical and severe cognitive challenges stayed home. Children from poor homes, including new immigrants, worked in factories or at other jobs to help support the family. Farm children worked the fields and only attended

school during the seasons when crops didn't require planting or harvesting.

Girls often were excluded from advanced education because of the perception that their natural role- to marry, raise children, and run a household- did not require much academic study. Children of the very rich often had tutors or went to exclusive boarding schools. (p.34)

Historically, it was typical to expect students to have two parents, one who was present when the child went to school and came home from school. This dynamic is changing, where parents or guardians are both often working due to living standards. This can complicate the lives of children and increase their engagement in cyberspace. Today, a childhood experience is just as unique as their current needs, creating a classroom full of diverse backgrounds, needs, experiences, and expectations (Tomlinson, 2016).

Children with emotional behavioural disorders can be found in all types of classrooms and schools throughout the United States, regardless of socioeconomic background, and are affected by the homes they come from (Tomlinson, 2016). Classrooms in Canada are just as diverse and display similar dynamics and pressures. Educating students with increasingly varied backgrounds and needs requires educators to utilize a variety of different strategies to ensure all students' needs are met. With the needs of students growing and diversifying so are the pressures for educators to find interventions, strategies, and supports to aid their practice.

Emotional Behavioural Disorders

In general, Special Education teachers have full caseloads of students with designations, but there remain many classes with a diverse range of student needs, including Emotional Behavioural Disorders (EBD). Many students experience the

challenges of EBD and educators are faced with the task of supporting these challenges in the regular classroom without adequate resources or supports in place. Forness, Kim, and Walker (2012) state, “there are unfortunately far more children with moderate to severe EBD defined in this way than ever make it into special education” (p.3). To qualify for an EBD can be a narrow process, as it has to affect the educational performance of a student (Forness, Freeman, Paparella, Kauffman & Walker, 2011). Educational performance is not defined in regulations and can be interpreted in a variety of ways (Forness et al., 2011). This can limit eligibility to children whose disorder affects their academic achievement in a negative way but not necessarily to those who struggle with their coping skills (Forness et al., 2011). Students may suffer from an EBD like depression, where it does not present itself daily but goes through waves of appearances in the child’s life. Due to this, there is huge confusion as to which students are in need, which are defiant, and which are truly coping. In one quote, Forness et al. (2012) express how identifying, acknowledging, and educating a student with an EBD can be challenging for a general classroom teacher:

In conclusion, we would like to note that many general education teachers and administrators still seem to instinctively view classroom externalizing behaviour as totally willful and cause for disciplinary referrals rather than as symptoms of ADHD... On the other hand, they frequently tend to view lack of involvement in certain instructional activities as a learning problem rather than as potential symptoms of depression or anxiety disorders. (p.8)

Before general education teachers can provide appropriate supports, a better understanding of the different categories of EBD is crucial. Consulting with trained

itinerant staff, like the school psychologist, counselor, and/or behaviour specialist is best practice when also seeking support for programming.

Categories of EBD. Emotional Behavioural Disorders can be categorized into the subheadings: Gender Dysphoria, Substance-Related and Addictive Disorders, Depressive Disorders, Disruptive, Impulse-Control, and Conduct Disorders, Feeding and Eating Disorders, Elimination Disorders, Obsessive-Compulsive Disorders, Trauma Disorders, Anxiety Disorders, and Neurodevelopmental Disorders. Within each disorder there are subcategories that have distinguishable characteristics that are outlined in the DSM-V. The DSM-V is the most widely accepted definition of each category of mental illness. Each disorder is unique and can be summarized by The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-V*; American Psychiatric Association, 2013) as the following:

Gender dysphoria. This is a conflict an individual has between their assigned gender and the gender they experience or express (p. 451).

Substance-related and addictive disorders. An individual who continues using substances even though there are substance-related problems (p. 483).

Depressive disorders. "...the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function. What differs among them are issues of duration, timing, or presumed etiology" (p. 155).

Disruptive, impulse-control, and conduct disorders. These are conditions that pose challenges in self-control of emotions and behaviours. These problems are formed through acts like aggression, and destruction of property against others (p. 461).

Feeding and eating disorders. This disorder is the persistent eating or eating-related behaviour that impairs physical health and/or psychosocial functioning (p. 329).

Elimination disorders. This disorder is characterized by the inappropriate elimination of urine or feces in inappropriate places; typically diagnosed in childhood or adolescence (p. 355).

Obsessive-compulsive disorders. These disorders are defined as those centered around obsessions and/or compulsions. Obsessions are characterized as persistent thoughts, urges, or images that are unwanted whereas compulsions are repetitive behaviours or mental acts as a response to an obsession (p.235).

Trauma disorders and stressor-related disorders. Exposure to a traumatic or stressful event is a necessary diagnostic criterion for an individual to have such a disorder (p. 265).

Anxiety disorders. These are disorders that include those that share features of excessive fear and anxiety. This disorder is more serious than typical fear or anxiety experienced on a normative level; this is when both feelings persist longer than developmentally appropriate periods, six months or more (p.189).

Neurodevelopmental disorders. Disorders that typically form early in development and can impair the child's personal, social, academic and/or occupational functioning (p.31).

Understanding that these disorders branch out into more specific designations brings insight into the fact that many of our children may be dealing with complicated needs that impact their wellness, ability to self-regulate, and engage in school activities. There are several possible reasons why the numbers of adults and children reporting that

they are personally impacted by a form of mental illness is increasing. For example, Bergen (2015) highlights that it is becoming more acceptable to speak about them, life transitions are becoming more demanding, and services are being provided in which those who struggle with an EBD are becoming more successful, as a couple of reasons. It is important to have strategies and interventions in place to promote students' wellness and academic success through self-regulation.

Self-regulation. Self-regulation is the ability to manage thoughts and emotions in a healthy, balanced way, while maintaining a sense of flexibility to modify reactions and responses to change (Woltering & Shi, 2016). In many studies focusing on self-regulation, there is a link between the ability to self-regulate and better academic performances in students (Woltering & Shi, 2016). When learning about the urgent needs of those with an EBD, it is important to understand that the skillset of self-regulation is a necessity. Improving self-regulation for students is a special education issue because without such skills, their ability to learn, cope with their emotions, and adjust to everyday changes, are negatively affected. Special education helps target student needs; when students do not receive special education services, they often struggle within the regular classroom environment and their teachers are unprepared for their needs. By understanding the need to educate students on self-regulation through various programs, lessons and interventions, educators are helping young people develop skills and strategies to overcome and manage stressors, increasing focus, and allowing students to have more socially acceptable behaviours (Woltering & Shi, 2016). Cook and Schirmer (2003) state,

In response, special education scholars have endeavored to show that special education, although it cannot and does not produce optimal outcomes for all students with disabilities, generally provides an added value to the education opportunities and outcomes of the students it serves. (p.201)

The added value for some students could be basic social skills and coping skills that they will need for everyday life. Animal-assisted intervention (AAI) can be a viable avenue to fulfill the added value within special education.

Animal Therapy and Support

A review of literature demonstrates that interventions to promote self-regulation of emotions and behaviour exist and come in a variety of forms (Woltering & Shi, 2016). Some of these self-regulation interventions use animal-assisted social skills training within education and have shown positive impacts on academic skills (Daly & Suggs, 2010; Linder, Mueller, Gibbs, Alper, & Freeman, 2017; Beetz, 2013). A study by Bassette and Taber-Doughty (2013) used a dog visitation program to determine effects of reading. Students in this study experienced increased on-task behaviour as well as improvements on their reading scores. There have been other studies that have also shown physiological, social, and emotional benefits (Friesen, 2009).

The impact of something that is non-judgmental, present, and calm, can allow a student enough room to take risks in their learning, and ease their anxiety. Companion animal therapy, a term founded by Levinson (1984) explains how touch and attachment behaviour release endorphins alleviating feelings of anxiety and forming foundations of social attachment. This can be achieved simply by petting an animal, taking the focus away from one's self, and providing feelings of relaxation and acceptance. This chemical

reaction is a great explanation to how AAI could impact students. Benefits of animal therapies are no mystery to many people; however, the unique benefits towards those with mental or psychiatric disorders extend to the physiological, psychological, and emotional health categories (Bergen, 2015).

Animal-assisted intervention is not meant to be used exclusively on its own; it has been shown to be effective in accompaniment with other types of interventions and is in fact encouraged. One study used a mindfulness program with nature and animal-assisted mindfulness training (Schramm, Hediger, & Lang, 2015). Patients became more skilled in their mindfulness, decreased negative thoughts, and stayed committed to the program. Nature and animal-assisted interventions can fit well with other types of teachings, much like using dogs to encourage engagement in reading, but not replace the lesson itself. The inclusion of animals in various roles has proven to show success, whether the goal is to commit to a program, increase engagement or motivation, or provide a setting of acceptance (Barker & Dawson, 1998; Schramm et al., 2015; Bassette & Taber-Doughty, 2013). Many educators aren't trained in how to use animals in the classroom and having more information would help fill this gap in knowledge.

Statement of the Problem

Although animal-assisted intervention has shown benefits that could be applied within the classroom, there are problems I encounter within my own practice; weaving such an intervention into my practice and student learning. Questions like: *How do I properly and meaningfully introduce this into my class? What if a student or students are afraid of this type of animal? What if I have a student with specific allergies?* These are questions I address in my project, to clarify these for other educators. This lack of

knowledge regarding the use of animal-assisted intervention within education is common amongst many educators. Daly and Suggs (2010) researched the impacts of pet therapy on students. Results showed that much of the experience teachers had with such a therapy was limited to a class pet, and the teachers were unsure as to what socio-emotional impact it had on their students. The study also shared that many of the teachers were interested in the idea of having an animal play a role in the classroom yet were unsure as to how this could be achieved. Animal support has begun to take on more roles within the education system (Bergen, 2015). The increase in demand and curiosities has also created more confusion of what it is, what it is for, why it is important, and proper terminology.

Personal Context

During the winter of 2010, I traveled to Rwanda, Africa to volunteer at a preschool with students ranging from ages two to eight years old. One of the main missions of the preschool was to help show the children a new way of being. Their parents or guardians had just survived the genocide and were traumatized. As a result, they passed on survival skills to their children, teaching them to hurt animals and fear one another. The children were growing up without learning any coping skills. Recognizing the need for change, this preschool began teaching the children how to be gentle and kind within their curriculum. Animals lived on the preschool property, and the children were responsible for feeding the animals, caring for them, even delivering their babies! The thought was that if they could learn to be gentle and care for something as vulnerable as an animal, they could transfer those skills to their own community, becoming valuable members for each other and themselves. Children were forming connections with the animals, felt safe within their community, and saw value in one another.

In my short career within education, I have encountered many classrooms with students that struggle with Emotional Behavioural Disorders (EBD), such as anxiety, depression, or trauma, as well as with pervasive disorders, such as Autism Spectrum Disorder (ASD). I wonder if providing children in Canada with opportunities to nurture animals will have similar impacts as those of the preschool children in Rwanda.

When speaking with colleagues and mentors, they always comment on their growing concern for the classes they are teaching year after year; how behaviours are becoming less regulated and their skills for classroom management and interventions are no longer appropriate for the class they have. The lack of appropriate interventions provided by the teacher impacts the mental health of students, their social interactions, and their success in learning.

Overview of Project

My first-hand experience seeing the benefits of animal-assisted intervention with preschool children in Rwanda, as well as the increase in social and behavioural needs of students within education today, has led to the creation of an animal-assisted intervention resource for educators. I created a resource to support teachers as they introduce animals in the classroom to support the needs of students with Emotional Behavioural Disorders. This resource, which will be explained in detail in chapter three, offers practical ways in which teachers can incorporate animal-assisted intervention. It is presented in a website format and can be utilized by all educators who want to have animal-assisted interventions as part of their classroom.

Project structure. I chose to do a professional development day as the means to provide teachers with resources and information as to how to implement animal-assisted

intervention. The presentation is offered through a website, which enables individuals to refer to the information later, during their own time, or deliver the presentation material to their colleagues. Information included covers background knowledge (what are Emotional Behavioural Disorders and how it relates to the classroom), roles in which animals have been used for mental health and how it has been used in the classroom, and provincial and local resources and contacts available to teachers. I have included picture book resources that teachers can use as they introduce the idea to students working alongside animals as well as two YouTube clips that share knowledge on trauma and assisted-animal therapy.

Critical Terms

When it comes to animal-based instruction, there are many terms used to describe different types of interventions, roles, or titles of an animal. Below are key terms used throughout my paper as well as the project resource. For ease of understanding, I use the term animal-assisted intervention as an umbrella term meaning any type of animal intervention used for the purpose of education and all needs within that.

Animal assisted interventions (AAI). This is used as an umbrella term by The American Veterinary Medical Association (AVMA) to describe animals that are used to play a part in the therapeutic processes (Andreasen, Stella, Wilkison, Moser, Hoelzel & Hendricks, 2017).

Assisted animal therapy (AAT) and pet therapy. This is a goal-directed intervention where the animal is used within the intervention process and is designed to improve physical, social, emotional, and cognitive function (Andreasen et al., 2017; Kirnan, Siminerio & Wong, 2015; Nikolskaya, 2012).

Companion therapy. This term is coined by Levinson (1984) describing how touch and attachment behaviour release endorphins alleviating feelings of anxiety and forming foundations of social attachment. This can be achieved simply by petting an animal. This is an old term and not commonly used anymore.

Service animal. These animals are specifically trained to help individuals with a disability (ie guide dog) and are owned by the same individual it is aiding (Andreasen et al., 2017).

Emotional support animal. Patients request a letter of support from their therapist, which allows them to take their pet to any non-designated pet areas. The letter states the individual is psychologically disabled and is unable to be stable without the presence of the animal (Younggren, Boisvert, & Boness, 2016).

Therapy animals. These animals are brought into the therapy session by a handler or owner, who is not the client, and go through a different type of training than service animals (Andreasen et al., 2017). The therapist or handler, who are sometimes not the same person either, owns therapy animals. Due to ethical and safety reasons, the handler may be included in the session if the therapist is not trained as a handler.

Animal assisted activities (AAA). This is in reference to when the animal is being used for the purpose as a companion and provides opportunities of motivation, education or recreation to enhance quality of life, but it is not tailored to a specific individual like AAT (Andreasen et al., 2017; Kirman et al., 2015).

Psychiatric service animal (PSA). This is a type of service animal that is trained to perform tasks that are helpful to individuals with disabilities to detect psychiatric episodes or lessen them (Younggren et al., 2016). This could be reminding individuals to

take their medication, giving safety checks of rooms, turning lights on for those with anxiety, interrupting self-mutilation, and anticipating epileptic seizures.

Summary

In summary, animal-assisted intervention has shown positive impacts within the lives of individuals who have shown a need for it. Like many interventions, there are appropriate times and places to use animal-assisted interventions, as well as, a need for education and resources to show how the intervention can be used. Emotional Behavioural Disorders are experienced by so many students, which challenge educators in the classroom. Having interventions that can promote self-regulation in students is one way supports can be provided for educators. AAI has shown to be an effective intervention that promotes self-regulation, mental wellness, and academic improvement. This chapter highlighted key terms used within AAI as a way to clarify the purpose of each animal-assisted role. My time in Rwanda was an experience that created a passion for animals and allowed me to witness the impacts animals can have on the emotional well-being of a child. With my experience so far in the classroom, I see a need for different supports that can aid the educator and positively impact the students. With the changing dynamics of family structure, and diverse childhood experiences, the needs of a child within a classroom are unique and complicated. My project is meant to be a resource for teachers who are beginning to educate themselves on using animals in the classroom. The website can be used as a professional development presentation, or a personal resource. The remainder of this paper is broken into three chapters. Chapter two focuses on a comprehensive literature review on animal-assisted interventions and therapies, chapter three outlines the creation and implementation of the project, and

chapter four offers my reflections on the research process and overall conclusions about the project.

Chapter Two: Literature Review

“When petting animals, a person’s face changes: the lines of tension smooth; the smile becomes less forced, more relaxed and open... (Beck & Katcher, 1996, p.43).”

Introduction

The purpose of this literature review is to identify the research that exists on the use of animal therapies and how it can relate to impacts on Emotional Behavioural Disorders (EBD). All the research studies in this review provide some positive impacts within their results. However, there remain gaps in knowledge regarding how to best implement such a therapy, understanding how outside factors can change the results, and that the human connection is just as important as the animal connection. Attachment theory is explored as it is one of the main expressed benefits of animal therapy. This review explores the research that exists, all within therapy goals and mental wellness, animal therapy used by professionals, and animal therapy research within school settings. Each section provides a description of various studies and an explanation of the impacts. Due to gaps that exist within each study, the reasons and significance for creating my project are apparent.

Attachment Theory

A common theory that coincides with animal therapies and the benefits they bring is attachment theory. Attachment theory is based around having a strong emotional and physical attachment to a main person in their life, an important part to personal development. Benefits within animal-assisted interventions are based on the safe attachment formed when students bond with animals (Bassette & Taber-Doughty, 2013). It is thought that our schemas of interpersonal relationships are based on our early

attachment figures. There are three attachment styles: attachment security, anxiety, and avoidance. Securely attached individuals have a positive outlook on themselves, those around them, and their relationships. They trust others and believe they will be supported when they need to be. Insecurely attached individuals (considering anxiety and avoidance are on a continuum) take on anxiety or avoidance (Lavy, 2016). Anxious attachment can have an obsessive need for closeness, have negative self-talk, and fear rejection. Avoidant attached individuals rely on themselves, struggle to develop intimacy or a dependence on others, and have a negative appraisal of others (Lavy, 2016). Within attachment theory, the main message being expressed is that human beings are contact-seeking and our well-being depends a great deal on the state of our relationships (Gomez, 1997).

Levinson (1984) is considered the pioneer for Animal Assisted Therapy (AAT), something he refers to as human/companion animal therapy. Levinson (1984) also connected the idea of attachment theory with human/companion theory, stating how the act of touch (like the act of petting an animal), can release endorphins, which helps promote healthy attachment. This would help to explain why children often feel accepted by animals. He gives a theoretical discussion showing how psychotherapy is effective when there is either touch or comfort included as human or animal companionship. Through his studies, Levinson concluded that human/companion animal therapy is an effective tool through touch, releasing endorphins, alleviating anxiety. This forms a foundation for social attachment, and attachment behaviour, where the companionship is initiated by attachment behaviour. Through Levinson's studies, he concluded that simply petting an animal takes their focus away from themselves, which can be used to assist

therapy by helping to build rapport. However, Levinson cautions that this does not function the same as or replace the role of a therapist.

Benefits of Animal Assisted Therapy

The benefits of animal-assisted therapy (AAT) are enough to consider it as a viable intervention to an individual student or group of students who struggle with their emotional balance and require self-regulation. AAT has experienced an increase in development over the last 20 years and has seen a promotion of the therapeutic side (Senent, 2014). AAT shares a close relationship to attachment theory. A connection is made between companion (the animal) and human. This attachment is formed through touch (the act of petting), which releases endorphins, establishing a healthy attachment. Healthy attachment is important because it forms the outlook an individual has on themselves and onto others. The most common benefits found with AAT on individuals are the emotional benefits, such as reduced anxiety or depressive symptoms (Dietz & Pennings, 2012; Friesen, 2009; Barker & Dawson, 1998). In addition to these benefits are changes to our emotional state, including increased motivation and engagement, increased positive outlook on self, and ability to stay committed to a task or program. These benefits directly assist students in their ability to self-regulate because they develop a stronger emotional foundation to provide perspective and self-reflection. Benefits of AAT cannot be assumed just because an animal is placed within a situation. Benefits are obtained through thoughtful and intentional placement, whether it is directed or undirected (Nikolskaya, 2012). Compatibility of personalities of both the child or children and the animal need to be considered. Physical placement, breed, and type of animal are also important. If these conditions can be successful, the benefits could be

psychological, psychotherapeutic, rehabilitative, and lead to increased confidence and ability to communicate (Nikolskaya, 2012).

It is not enough to know that AAT can provide benefits to individuals, it is also important to understand the why. The why in any situation is diverse and complicated given the variety of circumstances for each child. In trauma, the brain develops in a way where the body is made to respond as if danger still exists (Jones, 2018). It is expected that this type of distraction and distress would make the learning process difficult. Not only is learning affected but so is the ability to regulate emotions and create and maintain healthy relationships. Having an access point where children can realistically work on these skills is imperative. Another benefit for the use of AAT is that it is rarely used on its own but works well in partnership with other programs (Jones, 2018; Schramm et al., 2015).

Current Research on Animal Assisted Therapy

What is known about current research on animal-assisted therapies is that animal support programs and interventions have been used and researched in various ways (Barker & Dawson, 1998; Bassette & Taber-Doughty, 2013; Daly & Suggs, 2010; Nimer & Lundahl, 2007). Many of the studies report findings that demonstrate increased dedication to the task at hand, feelings of acceptance, or self-awareness (Schramm et al., 2015; Bassette & Taber-Doughty, 2013). The studies in this literature review have varying focuses regarding animal-assisted instruction and anxiety. Each study contributes a different perspective of how such interventions could be useful. These studies provide insights into how AAT has been used for different purposes (to increase motivation, for social attachment, alleviate depression, increase reading levels) and in varying ways (in

partnership with other skills training, in a school setting, or with psychotherapy).

Understanding current research provides perspective of how AAT has been or can be useful, ways it supports individuals, and where knowledge is still limited.

Daly and Suggs (2010) conducted a research study to determine the values and benefits that animals provide children. Daly and Suggs (2010) utilized an adapted survey on pet animals in the classroom with additional details to obtain information on attitudes and experiences with pets. Participants were comprised of 75 elementary teachers with a variety of roles within the school, including librarians and special education teachers. The main results of the study showed that most of the teachers liked pets, but that the majority did not have a classroom pet and relied on pet visits. Most classrooms that had pets were aquarium-based ones. The most common experiences with the classroom pet were caring for the pet and involving the students with this (Day & Suggs, 2010). The study showed strong connections between animal and child through anecdotal evidence. This study showed the perspective of the educator and what practical interventions teachers are choosing to do to incorporate animal-assisted intervention to teach empathy.

Therapy goals and mental wellness. Many studies focused specifically on how therapy goals and mental wellness could be improved by animal-assisted therapy (Barker & Dawson, 1998; Nimer & Lundahl, 2007; Schramm & Lang, 2015). The purpose of the study conducted by Barker and Dawson (1998) was to focus on animal-assisted therapy with the aim of facilitating patient's progress toward therapeutic goals. The study included 313 patients who were referred for therapeutic recreation sessions. A pre- and post-treatment crossover study design was used to compare the effects of a single animal-assisted therapy session with a single regularly scheduled therapeutic recreation session.

Before and after each session, the patients reported on a rating scale to assess their current anxiety level. Patients selected to do the study were deemed stable enough to participate with group activities. The main results of this study showed a notable reduction in anxiety scores after an animal-therapy session. Clients were asked questions regarding their anxiety before and after the sessions. This provided immediate perspective on how the participants felt with the animal therapy sessions. This study assessed immediate impacts on anxiety and demonstrated the need for a long-term study.

A meta-analysis by Nimer and Lundahl (2007) focused on how AAT improves Autism Spectrum Disorder symptoms, medial difficulties, behavioural problems, and emotional well-being. Half of the studies contained a control or comparison group. The main results of this research study showed that studies that used control groups were not as different from those that did not use them in categories of well-being and behavioural outcomes. This provides insight into the fact that outside factors (busyness of a room, the handler, certain events taking place) do not necessarily have a negative impact on results than those with comparison groups. This could reflect the effectiveness of AAT. Benefits are experienced regardless of whether it is a control group or not. Researchers included studies that reflected a more represented sample, and the meta-analysis provides insight into if type of animal matters, what type of participants are used most often, and what concerns benefit most. Some specific findings were that most often dogs were used as the preferred therapy animal, AAT typically targeted mental health concerns, AAT was used with adults more than minors, animal type mattered in some circumstances but not with mental health or well-being, and individuals with disabilities benefitted more than those without disabilities. The contributions this study made are valuable because it provided a

“big picture” of what studies show on AAT and how AAT has been helpful to specific participants.

An alternative study by Schramm et al. (2015) focused on relapse prevention in depression. Researchers used a modified version of Mindfulness-Based Cognitive Therapy (MBCT), nature and animal-assisted mindfulness training (NAMT). This program was an open pilot study where the participants ranged in ages from 18 to 70 years old. Participants had been diagnosed with major depressive disorder, responding to antidepressants and psychotherapy. Six patients, all who had early trauma, participated in the program. This program was conducted through registered psychotherapists with training in mindfulness who were also animal caretakers. Coburger Fox Sheep (a breed of sheep familiar with humans) were used as the animal companions. The Beck Depression Inventory and Response Style Questionnaire was used, and mindfulness skills were assessed through Kentucky Inventory of Mindfulness Skills and the Freiburg Mindfulness Questionnaire. As a result of this pilot program, five out of six participants had improved depressive symptoms, and had reduced negative thoughts. Participants checked in through questionnaires pre- and post-interventions, over a period of 8 weeks (Schramm et al., 2015). This study is relevant to my project because it illustrated how AAT can be used with mindfulness training, showing how it has the potential to partner well with other activities, which is something that would be a common interaction in a school setting. This study also showed how using animals in conjunction with training can be an alternative route to skills training. AAT is an adjunct modality intended to be used with another modality in order for it to function at its best.

Utilization by mental health professionals. O’callaghan and Chandler (2011) explored animal-assisted interventions utilized by mental health professionals. The purpose of this study was to examine how mental health professionals incorporate specific animal-assisted techniques into their therapeutic process. The study was done through a survey inquiry determining if different techniques for animal-assisted therapy are used, what techniques are incorporated more than others, and if certain techniques are used for different reasons. Participants were licensed mental health professionals in the United States who practiced AAT. This study relied on 41 professionals who completed a survey. The study found that most professionals use animal therapy in more than one orientation such as in the role of a class pet, or used to assist with a reading visitation program, as well as to provide a calming effect in the classroom. Dogs were a common choice of animal used. In cases where AAT was not used, it would be because the day was not conducive for it, or the patients were not willing to have animal therapy as part of their intervention program. This study highlights that the use of AAT is still in its infancy, but that it is a tool being used more and more frequently. Clearly, more attention needs to be placed on further research into the use of AAT in different settings, including education.

In their study, Dietz and Pennings (2012), evaluated AAT in a group treatment setting for children who experienced sexual abuse. Three groups of interventions on trauma symptoms were compared. They all followed the same treatment protocol with two variations of animal-assisted therapy. The conditions of the three groups were no dogs, dogs but no stories, and dogs with stories. AAT is not generally used as a stand-alone therapy, but most commonly alongside treatment strategies. There were 153

children ranging from the ages of seven to 17 years old involved in group therapy at a child advocacy center. The results showed that those in groups with therapy dogs showed significant decreases in trauma symptoms, such as anxiety, depression, anger, PTSD, dissociation, and sexual concerns. Further decreases were experienced when AAT was accompanied with therapeutic stories, a process used to help children express themselves with difficult topics (Dietz & Pennings, 2012).

Equine-based therapy is not a new concept. Riding therapy existed in British World War 1 to aid in rehabilitation of veterans (Selby & Smith-Osborne, 2013). A new manual-based treatment for patients with mental disorders (who have taken part in conventional psychotherapy but have been unsuccessful) is based on patients who have tried an Equine-facilitated body and emotion-oriented psychotherapy program (EBEP) (Johansen, Wang, Binder, & Malt, 2014). Horses are known to have a high sensitivity and responsiveness to body language and are often used to help patients improve their self-awareness on their emotions, bodily responses, and communication. During the program therapists help the patient be more aware when interacting with the horses but also help them verbalize their experiences. To ensure this program is relevant to the individual, the patient undergoes clinical and semi-structured psychiatric interviews to gain a clear diagnosis and develop their individualized treatment plan. Patients who are suitable for such a program are those who have participated in conventional psychotherapy without effect, individuals who want treatment but do not accept conversation-based psychotherapy, individuals with attachment or non-verbal communication problems, and those interested in therapy connected to animals (Johansen et al., 2014).

In a systematic review of experimental evidence regarding animal-assisted therapies for children or adolescents with or at risk for mental health conditions, 24 studies met a specific criterion. To meet the criteria, the study needed to be published between 2000 and 2015, be an intervention on an individual of 21 years or younger, the participant needed to be considered at risk of mental health symptoms, animals were required to be part of the child or adolescents' treatment, and the study required a control or comparison group (Hoagwood, Acri, & Peth-Pierce, 2016). Of the studies that fit the criterion, 46% had an equine focus, 42% studied dog therapies and the remaining 12% tested on interventions that included different animals (cats and rabbits). Of the studies, 75% of these interventions took place outside of a counseling setting in a horse stable, child advocacy center, classroom, or a medical or dental office. Out of the 11 randomized trials that existed, three studies found significant differences between groups in favour of the animal group regarding positive change in social competence, behaviour, social functioning, hyperactivity, social cognition, and communication. Some of the studies showed reduction in ADHD symptoms in both types of groups, with more of a decrease with the intervention groups (Hoagwood et al., 2016). These results show the effectiveness of AAT for children and adolescents, but also suggests impacts vary depending on conditions, individuals, and needs.

Animal-assisted intervention in schools. In a study by Bassette and Taber-Doughty (2013), researchers examined the effects of a dog reading visitation program. The study addressed the issue that students who struggle with Emotional Behavioural Disorders (EBD) often struggle with reading. Three students who were identified as having EBD in their Individual Education Plans (IEP) participated in this study. The

study compared two reading locations for independent reading time, reading at a desk in the library versus reading to the dog in a private corner of the classroom. The students' reading levels were identified through a pre-quiz. Student chose higher level books to ensure it was near frustration level and there was interval recording for on-task time. The main results of the study showed improvements with observed on-task behaviour for all three students when using the dog reading program. Through specific measurements and interviews with students, this study provided insight into behaviours such as motivation, engagement, and willingness to take risks in learning, as well as where animal-assisted intervention may play an important role.

Another study was performed with a similar focus on the impacts of a canine-assisted reading program (Linder et al., 2017). This study took place in a public elementary school setting with second grade students. These students either read to a registered therapy dog for 30-minutes once a week or were part of a control group working with a standard classroom curriculum. Students' reading skills were assessed twice a month as well as their attitudes towards readings (pre- and post- intervention). Results showed that academic achievement did not change significantly for either group. However, students who were part of the intervention group did experience significant changes in scores on attitudes towards academic reading (not towards recreational reading). These results support claims towards benefits of animal-assisted intervention in children's attitudes and more specifically a positive outlook on literacy.

There is an existing school program where therapy dogs are integrated into the reading curriculum for the purpose of impacting a child's reading skills and attitudes towards reading (Kirnan et al., 2015). In one scenario they compared a kindergarten

classroom, during the winter, on a reading program with a dog versus a kindergarten group in the winter with no dog. When the researchers first checked in, in the winter, there were no significant differences between the two groups. However in the spring, the group with the dog program had higher reading scores. Educators commented that the weekly visits from the dogs were something to look forward to and provided students with motivation to do well. In the beginning, some students and adults displayed skepticism but by the end of the program there was 100% buy-in. The benefits in this study were increased confidence and interest in reading, focus, and ability to stay on task. The challenges to the actual implementation was teaching students how to interact with the dogs appropriately and accommodating the students who did not want to participate in the beginning. Although these challenges required additional explicit teaching and accommodation up-front, eventually all students interacted with the dogs appropriately and benefitted from having dogs in the classroom.

In another study, the effects of a school dog-teacher team were investigated, focusing on socio-emotional learning, depression, and emotion regulation strategies within a third grade classroom (Beetz, 2013). The term school dog refers to a dog owned by the teachers, who has their dog visit one to five times a week, which is different from a handler. The study had a school dog present one day a week whereas the control classroom did not. Results showed that the school dog group experienced a stronger improvement with a positive attitude towards school, enhanced motivation, consistent with results from previous studies. Over a course of a year, students experienced positive emotions toward learning (Beetz, 2013). Motivation is a common rationale for

implementing AAI in the classroom. From these results it can be concluded that these positive emotions would support learning of individuals.

In a theoretical discussion, Friesen (2009) focused on how animal-assisted therapy (AAT) can provide children with a valuable form of social and emotional support in either an educational or therapeutic setting. Through this discussion, gathering anecdotal evidence from other studies, common research was found that children's interactions with animals provide physiological, social, and emotional benefits. The conclusions found were that potential candidates for AAT interventions were identified by special education teachers or therapists based on a clear understanding of the student's educational or therapeutic goals. Animals are helpful with children because they are willing and active participants without communicating judgment or criticism. This study highlighted who are ideal candidates for AAT and provided a brief overview on the benefits of AAT. Ideal candidates include those who do not have allergies or fears towards certain animals, those with a cultural background that have a positive outlook on certain types of animals, and that candidates are paired appropriately with a type of animal and program specific to the goal they have. Some of the benefits of AAT highlighted include increased socialization due to interactions, have a calming effect in high stress situations, and in some cases behavioural and emotional anxiety is reduced when in the presence of an animal, and lowered blood pressure and heart rate while a child reads aloud (Friesen, 2009).

Having animals within the classroom is a common practice. Rud and Beck (2000) conducted a survey looking into the goal educators have when they pursue this practice. This survey consisted of over 400 teachers in the USA. Results found that teachers were

using animals as academic research and access points for creative activities within the classroom. Students used the animals as a method to calm themselves, assist with a positive outlook towards school, and improve their psychological well-being (Rud & Beck, 2000).

The analysis of education approaches towards the human-animal relationship is presented in one article by Senent (2014). This is European-based with some American websites considered. In both European and American scientific literature, it was found that animals have been predominantly used in a zootherapy or AAT way in an educational setting. This article explains five states that exist in AAT that an educator may go through, which are as follows (Senent, 2014, p. 102-103):

- 1) Contact- This is the beginning stage for any educator-animal relationship where their common history is necessary in order to develop a special sensitivity towards the animal. An example of this would be owning a pet or being a farmer.
- 2) Appreciation and development of sensitivity towards animals- In this stage a closeness is developed to animals. Physical contact is needed.
- 3) Learning through observation- In this stage we learn through animals by imitating their behaviour and what their understanding could be of humans.
- 4) Defense and protection of animals- This state occurs when the educator is aware of the animals and understands them thoroughly. They have developed experiences and connections with animals. Their defense and protection of animals is often a socio-political commitment to them.

- 5) Animal-assisted activities- The last state is best known for where the human-animal relationship may have therapeutic qualities. The animal takes on animal-assisted activities and animal-assisted therapies.

These states provide clarity to the process that occurs, either in order or sometimes simultaneously, in order for a solid foundation of respect and knowledge between educator and animal to form.

Conclusion of studies. All the studies within this review of literature have different focuses regarding animal-assisted intervention and the impact they can have on individuals. Barker and Dawson (1998) researched whether anxiety levels differ based on type of intervention, Daly and Suggs (2010) provided insight into how much educators use or know about animal-assisted intervention, and Bassette and Taber-Doughty (2013) measured academic engagement if anxiety can be alleviated. Relating to my project, this review highlights many ways animal-assisted intervention is currently being used, which provides a foundation for sharing this information with other educators, specifying the various ways they can incorporate such interventions. These studies explain the benefits and provide evidence-based research to support educators wanting to have animal-assisted intervention as part of their classroom.

Gaps in the Field

There are a few common gaps in the field regarding the use of animal-assisted intervention within education. The most common gap is how pet therapy does not have a universal guide of how it can be used effectively and when to use it (Daly & Suggs, 2010). The gap in the study by Nimer and Lundahl (2007), was shown through the gathering of studies highlighting the needs of how to deploy such an intervention since

findings showed that animal type, purpose, and training do matter. Another area that needs further development is analyzing who this type of instruction may be best suited for. For therapy, there are screening tools that have been developed for clients to help determine suitability, but this type of screening does not currently exist within education. In many studies, a limitation is that there are few details as to why AAT may have been effective for one participant but not the other (Friesen, 2009). An additional gap in the field of education is classroom compositions are often very different from one class to the next and that there are many variables that may affect the success of an intervention. Many of the studies discussed how animal therapy could be used as a tool within the classroom (Friesen, 2009). In the study by Schramm et al. (2015), mindfulness training is used in partnership with animals as a more successful way of using the program. Understanding who the ideal candidates are will allow the consideration of AAT in an education setting and make the feasibility an easier process. Since the interest in the use of animal therapies has increased, confusion in terminology has impacted the effective communication and use of interventions.

Contributions to the Field

The purpose of my project is to provide a resource for educators seeking information on animal-assisted intervention and utilize the best method of research-based information. Grounded in research in the field of AAT, this project will help bring clarity to the deployment of AAT, shed light on what is considered effective implementation, and help educators understand what works and what does not work within the classroom and possible reasons why.

Summary

This literature review discussed the importance of attachment theory, EBD, and summarized the existing research on animal therapies and the varying positive impacts it can have on individuals and groups. Animal-assisted intervention benefits are based on the safe attachment students form when they connect with animals (Bassette & Taber-Doughty, 2013). EBD is affected by this because endorphins increase from petting an animal and can alleviate the anxiety an individual feels (Levinson, 1984) as well as allow them to be self-reflective of their body language based on the reactions of animals (Selby & Smith-Osborne, 2013). This chapter clarified the further need for educating teachers on this existing intervention and how animal-assisted intervention can be utilized. It is important to understand that pet therapies used in various settings show potential for a similar use within an education setting. The use, training, experience, and need, are all contributors. The relevance of the previous literature allows educators to learn about the various ways AAT has and can be used, the benefits that come from it, and bring perspective to possibilities of how it can be used in their own classroom.

Chapter Three: Overview of Project

“Are there any observable, knowable, universal truths? Of course. Math and science have given us many examples. But when it comes to the swirl of human emotion, behaviour, language, and cognition- there are many valid perspectives” (Brown, 2018, p. 143).

Introduction

This chapter outlines the project I created, Emotional Behavioural Disorders & Animal-Assisted Intervention, as part of the requirements for the Master of Education in Special Education degree from Vancouver Island University. Chapter three will give readers a clear idea about what they can expect from the resource and whether or not it will be valuable to them. The purpose of the project is identified and explained in detail. The structure and layout of the resource is described with the support of research. My project can be used as a professional development day but is in the format of a website for ease of access. The information included brings clarity to what AAT is, how it has been used, why it may be used, what resources are available both locally and provincially, and steps to be considered.

The Project

The project I created is meant to act as a professional development day resource for teachers to attend in their local school district or with their learning community. It is presented in the form of a website to provide flexibility for how it is attained. If a professional development day is not possible for a teacher to attend, they can still gain access to the information. Information that is included on the website is: an explanation on EBD and self-regulation, an overview of AAT (including definitions), research with a focus on education and wellness, support tools and videos that can aid implementation,

and additional resources and programs available in British Columbia as well as the specific Okanagan area. An opportunity to seek out a learning community for continued accountability on the journey of animal-assisted instruction is also included.

Best Practices of Professional Development

There is a spectrum to what is considered professional development. Professional development can be in the form of attending a workshop to a more informal experience in which an educator is doing an independent book study on a professional publication (Villegas-Reimers, 2003). The perspective on professional development is changing; where learning is acknowledged to happen over time. What has been found to be the most effective form of professional development is that it's related to a teacher's daily activities, provides regular follow-up support, creates opportunities for collaboration with meaningful interactions, and is designed as a series of related experiences over time as opposed to one-off presentations (Villegas-Reimers, 2003). Clearly, there is no one-way to implement effective professional development but rather it is more important that it reflects the needs of the schools, districts, and teachers (Villegas-Reimers, 2003). Having a 'one-off' presentation may not be the most effective choice but it could be most feasible for those who are unable to attend ongoing development. Having optional learning communities in partnership with this project is one way to provide the best of both worlds.

Professional development used in foreign countries. In one article, Sysko (2018) looked at the different perspectives and developments on professional development. The aim of this study was to analyze the positive experiences in organizing continuing professional development of teachers in foreign countries. The approach to

professional development within the modernizing education system in Ukraine has a personality-oriented approach, with flexibility and diversity of forms and training content (Sysko, 2018). Sysko (2018) states “The key factor, which influences effectiveness of continuing professional development is the teachers’ ability to reflect, motivation, responsibility, and academic mobility within professional development” (p. 67). Within Canada, current professional development of teachers is regulated at the district and provincial level, and is provided by universities, education departments, regional education centers, school boards, volunteer teacher associations, teacher unions, and private providers of professional development services, all aimed at organizing advanced training within school. Looking further into Canadian professional development, each teacher develops a plan for their individual professional development, typically funded by education authorities. In contrast, Finland provides teachers advanced training over two to three-day training every month, looking at other pedagogical activity within other educational institutions as a way for them to apply it to their own teaching (Sysko, 2018). This article highlights how countries have varying ways of professional development and defining the ‘best practice’ is determined by the needs of teachers and the current education system.

Professional development: Knowledge in practice. Professional development embodies many different forms for different purposes, the key to its success is the commitment and follow through by those who are practicing. In one study, researchers were looking into the implementation of an online program used by teachers to support early childhood literacy instruction in an Australian and Indigenous context, using the best practices of professional development for remote areas (Helmer, Bartlett,

Wolgemuth, & Lea, 2011). This article outlined the challenges and successes experienced by the researchers and coaches while supporting its teachers. Australia has consistently ranked one of the top countries in reading, mathematics, and science literacy but Indigenous Australians are not ranking in the same way, specifically in remote areas in the Northern Territory. An online literacy program was created and implemented in seven schools due to the lack of ability to provide in-service training to educators in that specific area. The focus was to use best practice of professional development; embedding the knowledge in practice while still heavily depending on the ‘buy-in’ of the teachers, ongoing approach is preferred over one shot workshops to get teachers to master a skill, collaborative problem solving, involved reflection and feedback, and follow up by support. Results found that though intention and development of the program were good, teacher follow through and investment were the biggest factors. The younger and less experienced teachers often had a greater commitment showing greater success with implementation. Though there is best practice for professional development, the biggest factor needs to be the interest and investment of educators, and their willingness to apply their knowledge consistently (Helmer et al., 2011). With these considerations in mind, my project provides flexibility; it can suit the current needs and circumstances of the teachers. Learning communities are offered but not required. My website is an entry level access point to learning further information through the presented research and existing resources.

Professional development: Review of literature. Teachers are a key factor to successful student achievement. Therefore professional development that supports teachers in this endeavour should focus on teacher quality (Kuijpers, Houtveen, &

Wubbels, 2010). It has been found that professional development days fail to focus on what conditions are needed to support teachers appropriately (Kujipers et al., 2010). In a review of literature by Kujipers et al. (2010), there were nine common principles found for effective school improvement. These nine principles are as follows:

- 1) Provide an approach specific to school.
 - a. Consider the school or schools as a starting point.
- 2) Use a cyclic approach to improvement.
 - a. Being prepared with necessary skills and knowledge for every stage.
- 3) Have a focus on the teaching and learning processes that exist.
- 4) Consider all school factors, such as: procedures, the roles, structures, and facilities that exist to support the teacher and learning processes.
- 5) Create educational goals at all three levels: the school, teacher, and student.
- 6) Apply multiple different perspectives.
- 7) Take on implementation strategies on how to reach these goals.
- 8) Include and offer external support (outside programs).
- 9) Use information from various research sources.

A combination of the above nine principles have been applied to several schools where improvement was seen when teachers used a goal-oriented model. In cases where this was not as successful, one of the principles was compromised. For example, some educators were not willing to have an external support observe them (Kuijpers et al., 2010). The ways in which this website is geared towards success within these nine principles are it provides a context-specific approach, provides a platform for information that is accessible to educators if they cannot physically make it to a professional

development day, and uses information from various research sources. As part of the website, there is a learning community communication board where teachers can connect with similar goals for accountability and shared experiences. This is an open forum where anyone and everyone can read while staying anonymous based on the information they provide.

In a narrative study by Sprott (2019), teachers' descriptions were given regarding what helped and what was difficult in developing their teaching skills. Teachers often experienced growth when they included their students as fellow collaborators, travelled to other classrooms and schools to observe what other teachers were doing, developed professional relationships, and given time and space for intentional collaboration and reflection with their students. Hindrances to effective implementation and growth were having a lack of common planning time with students or fellow colleagues and mandates on testing or standardization that took away from the beliefs of the educator (Sprott 2019).

Overview and Implementation

This project is in the form of a website to ensure it is accessible to educators to look at for the professional development day or alternatively after if an educator could not attend the professional development day. In addition, it is available to anyone who would like to share the information with another group. Although research shows ongoing professional development can be more effective and often considered best practice, this specific professional development day is not focused on teaching educators to master a skill but rather provide them further insight into animal-assisted instruction and the available resources around them to support them through their learning journey.

Most of the information could be provided within a day to work around teachers' busy schedules and be provided on previously determined professional development days.

Though learning communities are very supportive, Pro-D days are available to teachers as an intentional day of learning. To ensure this can be in its most effective form, those who attend can create learning communities, based on what their location, intervention journey they may be on, or connection they make with a group. For those who are unable to physically attend the day, they can connect with others online through the website.

These groups will meet on their own time to share about their experiences, provide feedback or resources based on what they have found, and promote accountability for one another. The learning communities will be optional but will increase the effectiveness of this resource. Learning communities provide opportunities for educators to seek like-minded individuals who are either more educated on their focus or seek the same guidance and training in a type of intervention. This ongoing learning process keeps teachers accountable to what they are learning, provides them support to ask questions and have someone check in, and creates accountability to life-long learning. Learning communities are a great way to connect to outside resources and programs. It is difficult to expect anyone to master a new skill within the process of a day. However more success comes with ongoing learning and practice. This day is meant to provide information and opportunities without adding stress to educators. Stress is limited in this form of professional development because the resource is designed as a one-day commitment for interested educators, with the potential opportunities for further investigation. Further investigation may come in the form of becoming part of a learning

community that decides the direction and commitment they will have or contacting outside supports, such as St. John's Ambulance.

The Purpose of this Project

The purpose of this project is to provide insight into various ways animal-assisted therapies and interventions can be utilized within education and highlight existing resources that are available to educators. Existing resources and information on animal-assisted interventions is provided in the form of a website, making it accessible to those who want to access the information after a professional development day if they are unable to attend. The opportunity to be part of a learning community is encouraged and provided through an open forum on the website to incorporate continuous learning and follow through. Teachers are busy and have many responsibilities in the classroom to ensure they meet the academic, social, and emotional needs of their students. Many teachers are interested in learning about how animal-assisted interventions can be utilized in the classroom but lack the time to search for research-driven resources. Interested teachers will be able to see the information and be provided guidance on different ways they can pursue this journey.

Website Design

The website is broken up into different pages to help with readability, accessibility, and visual appeal. Pages are accessed by clicking the top tabs with the headings: Home, EBD & Self-Regulation, AAT, Additional Resources, and More. The following section provides an overview of what readers can expect to find on each page.

Home. On the Home page, educators will find a summary to what each page is about on the website. They will also have the opportunity to connect with others on a similar journey on an open forum.

EBD & self-regulation. On the Emotional Behavioural Disorders & Self-Regulation page, educators will find information about what each is, why it is important to understand what they are, and how they can appear.

AAT. On the Animal Assisted Therapy (AAT) page, educators will find information on what animal-assisted interventions are and what animal-assisted interventions are not, benefits it can provide, and the many different terms and definitions used within the world of AAT.

More. This tab allows educators to access Additional Resources: Research, Implementation, Resources and Programs, and References. The tab, Research, expands to Research in Education and Research in Wellness. The tab, Implementation, expands to Support Tools & Videos (Extra Resources).

Additional Resources. This page is provided as an alternate way to navigate through to the following pages: Research in Education, Research in Wellness, Implementation, Support Tools & Videos, Resources & Programs, and References. Any individual who accesses this website has a chance to reach these pages through different avenues.

Research. On the Research page, educators will find a brief explanation on the purpose of research with an education focus, with a button that links them directly to that specific page, and an explanation of research with a wellness focus, also with a button to link them directly to that page.

Research in education. On this page, educators will find a list of research articles on AAT and education, with a brief description of each. At the bottom of the page is a button that links the educator directly to the ‘Research in Wellness’ page.

Research in wellness. On this page, educators will find a list of research articles on AAT and mental wellness, with a brief description of each. At the bottom of the page is a button that links the educator directly to the ‘Research in Education’ page.

Implementation. On this Implementation page, educators will find ways they can implement animal-assisted interventions in their classroom, in small steps, big ways, with either a permanent commitment or ways to familiarize one’s self with it.

Support tools & videos. On this page, educators will find recommended picture books to introduce the idea of animals into the classroom. They will also find two TedTalk links, that expand on the concept of trauma and AAT.

Resources & programs. On this page, educators will find Okanagan-based programs that they can connect with for support with various types of AAT. They will also find Canada-based programs that provide support. Each program is described and provided with a button that links the educator directly to their website.

References. On the Reference page, educators will find all the research that supports the creation and content of the website resource.

Implementation of Professional Development Day

The website project is designed to be a reference for educators to use during a professional development day. To implement the professional development day, the person leading the group should have a clear understanding of the contents within the website, spent an adequate amount of time reviewing the information and references, and

be able to guide fellow colleagues in using this website. The professional day format will be based on the individual needs of the school. However, to implement the day successfully, the group needs a computer connected to a projector and be connected to the Internet. The website can be found at:

<https://animalassistedintervention.weebly.com>

Summary

This chapter explained the structure, format, and intentions of my project, as well as the intended audience and implementation. With the support of research on best practice of professional development, my website was created in a way that provides easy access for those seeking the information, is accommodating to busy schedules, as well as provided opportunities to connect through learning communities. It has been found that best practice comes through ongoing learning and mastery of a skill, but the success of learning and implementation of an intervention comes through the commitment of a teacher. Educators are responsible for great amounts of follow-through. By providing a website as a resource for current research on animal-assisted interventions, local programs as support, and examples of implementation, this resource eases the load on a teacher contemplating animal-assisted interventions within their practice. Animal-assisted interventions can be a powerful tool in education. It is my hope that by using this website, educators will feel more knowledgeable about what animal-assisted interventions in schools looks like and feel supported in their journey.

Chapter Four: Reflection and Conclusions

“Emotional literacy, in my opinion, is as critical as having language. When we can’t name and articulate what’s happening to us emotionally, we cannot move through it

(Brown, 2018, p.146).”

Introduction

This chapter reflects on the journey I took to create my project, accounting the process of research on animal-assisted education, emotional behavioural disorders, self-regulation, changing classroom dynamics, and the best practice of professional development. I am proud of the format and presentation of my project, the organization of information, and the intentions I hold. Limitations within the project are the needs for continued further research in animal-assisted interventions that show the long-term effects. I believe my research and website provide positive contributions to the special education field by providing a way for teachers to access what current research exists on the topic and how such an intervention has been used.

Successes of the Project

There are many successes in this project that I am proud of. I like the overall format and way I chose for the information to be presented. I believe that by developing a website for the information I found a format to provide teachers with an accessible way to gain knowledge, especially if attending a professional development day is not practical for them. The website lays out general knowledge to provide the reader with background information, including the acronyms AAI, AAT, EBD, and self-regulation as well as a definition of terms. The background information provides more familiarity with the topic. The reason I provided information on current research as small summaries is because I

found the studies helped me learn the different ways animal-assisted interventions has been used as an intervention successfully. If a reader would like to look further into a specific study based on the small description, they can seek out this information independently. I understand the interest of wanting to pursue a new teaching strategy in my own practice but unsure on what my first steps should look like or how to expose my students. I believe my website is helpful in providing simple first steps, simple resources like picture books to read to younger students, and outside supports that are more educated in this topic. Knowing what is available locally is helpful for educators to get started.

Limitations of the Project

The limitations in this project are the restriction of what I could develop in regard to the learning community. Understanding that best practice in professional development is an ongoing of learning and accountability, I wanted to be able to create this in the context of my project. What was difficult about this was setting parameters or expectations of how the learning community would be developed and accessible. On my website I have an open forum where educators can share their experiences and seek out groups, entirely up to their own initiative. This provides educators with the option to seek an online learning community. Best practices within professional development have been found to be continual learning and follow up on a focus. The limitation I experienced with this is that I created a website with the idea of a one-day professional development. Had this been a thesis, I would want to find a way where this could be an ongoing series, where teacher groups are meeting, discussing their concerns, and supporting one another. The most common and continuous limitation I experienced was the actual research on

animal therapies. Animal therapies are not a new practice but still appear to be young in its foundation of available research. In many of the studies I read, much of the results concluded that more time was needed to fully understand the long-term impacts of animal therapy.

Implications for What I Have Learned

Going through the process of having an idea for this project, combining my passion for animals and seeing the need for self-regulation support was eye opening when looking through the research. In the beginning of this process I felt that there was a need to have animals present in the classroom because of the calming effect they had on students. Upon further research my views have developed and changed. I now see that if there is a specific need, animal therapy can be a potential form of intervention to help with this, but not always the right one. I also learned how effective animal-assisted interventions can be in partnership with other programs. The need, the student, the space, and the investment of the educator are all factors to be considered. When considering students, I learned that not only can their needs be diverse but what intervention is appropriate for them also varies. Teachers need to have an investment when going about the route of which animal therapy they would like to explore and implement. Having a good understanding of the different ways it can look like, and the purposes they provide is only a good start to the process. I fully believe for a teacher to be successful with the use of animal-assisted intervention, they need to continuously be assessing if this intervention choice is still appropriate for the need and what learning community or support community can they find in order to ask the necessary questions. This cannot just be an endeavour taken upon by the teacher but also needs the support of administration,

at every level within district and by all departments, colleagues, students, and parents.

Within the educational field I am proud to be providing an additional resource that could be useful to teachers who have no prior knowledge of what animal assisted interventions look like. I am passionate about this type of intervention and bringing light to the benefits it can bring. This website created can be used for multiple functions, a platform for a professional development day, a literature resource for an educator to explore on their own time, or a resource for a learning community group.

Conclusion

Overall, this project was inspired by the gift animals can bring in an individual's life and the change they can create within their emotional regulation and how they carry themselves. Research brought clarity to what exists within this field, gaps that need to be addressed, how animal-assisted intervention can be best suited for individuals and groups, and what is needed for teachers to be best educated in this area. The result is a website that provides flexibility to how the knowledge is attained and leaves an educator with future steps that they can pursue.

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Appendix A

For ease of access, the website link is provided here.

<https://animalassistedintervention.weebly.com>