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Animal-Assisted Interventions (AAI) : An Effective Intervention in Managing The "Tantrum" Behavior of Austism Students

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ABSTRACT

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by social communication deficits, repetitive behaviors, and sensory sensitivities. Students with autism spectrum disorder (ASD) usually exhibit severe tantrum behaviors at school. Tantrum behaviors in students with autism can pose significant challenges in school settings, affecting their overall well-being, academic progress, and social interactions. According to a study published by the National Autism Society of Malaysia (NASOM) in 2018, it was estimated that approximately 1 in 79 children in Malaysia falls within the autism spectrum. This indicates a significant prevalence of autism within the country, underscoring the need for targeted interventions and support in educational settings. In addition to prevalence data, studies examining the experiences of students with autism in Malaysian schools have shed light on the impact of tantrum behaviors on academic achievement and social inclusion. Research conducted by Lim et al. (2019) found that tantrum behaviors were a significant barrier to effective learning and social integration, often leading to disruptions in the classroom environment and hindered peer interactions. Therefore, it is essential for schools in Malaysia to adopt evidence-based interventions and strategies.This research aims to explore the effectiveness of Animal-assisted interventions (AAI) as a complementary approach to managing severe tantrum behaviors in students with autism. By addressing the specific needs of students with autism, teacher can create inclusive environments that can foster their overall development and well-being. Collaborative efforts between educators using this AAI strtegy can play a pivotal role in managing "tantrum behavior" among pupils with autism.

Keywords : Autisme, Tantrum, ASD, Animal-assisted interventions (AAI)

Introduction of Best Practices

Students with autism spectrum disorder (ASD) who exhibit severe tantrum behaviors at school often require targeted interventions to support their emotional regulation and overall well-being. Tantrums in children with autism often manifest as intense, disruptive, and uncontrolled outbursts, including crying, screaming, physical aggression, and self-injurious behaviors (Johnny L. Matson, Rachel L. Goldin, 2013)

While evidence-based interventions such as Applied Behavior Analysis (ABA) and Cognitive-Behavioral Therapy (CBT) have demonstrated effectiveness in managing challenging behaviors, incorporating additional strategies that provide a sensory-rich and engaging environment can further enhance outcomes for these

students. One such intervention involves bringing students with autism to interact with animals outside of the classroom, providing them with unique sensory experiences and therapeutic benefits.

Animal-assisted interventions (AAI) have gained recognition for their positive impact on individuals with various disabilities, including autism. The presence of animals has been shown to reduce anxiety, increase social engagement, and improve emotional regulation in children with autism (O'Haire, 2013). This aligns with the underlying theory of social-emotional development, which posits that interactions with animals can facilitate emotional connections, communication, and self-regulation in individuals with autism (Banks, M. R., & Banks, W. A. (2002).

Animal-assisted interventions offer numerous advantages for students with severe tantrums. The sensory-rich nature of these interactions, such as tactile sensations and gentle movements, can help modulate arousal levels and promote self-soothing strategies (Grandgeorge et al., 2012). Furthermore, animals' non-judgmental and accepting nature creates a safe and supportive environment that encourages the development of social skills and emotional expression (Manczak et al., 2019).

Incorporating animal-assisted interventions into the educational setting requires careful planning and collaboration among educators, therapists, and animal handlers. The implementation may involve structured activities such as animal-assisted play, grooming sessions, or guided interactions, tailored to address specific behavioral goals and individual needs. It is essential to ensure that appropriate animal welfare and safety measures are in place to safeguard the well-being of both the students and the animals involved (Martin & Farnum, 2002).

This research aims to explore the efficacy of animal-assisted interventions as a complementary approach to managing severe tantrum behaviors in students with autism. By examining the impact of these interventions on emotional regulation, social engagement, and overall behavioral outcomes, this study seeks to provide valuable insights into the potential benefits and practical considerations of incorporating animals in educational settings for students with autism.

Justification of Best Practices Implementation

Tantrum behaviors exhibited by children with autism in schools pose significant challenges that impact their academic progress, social interactions, and overall well-being. However, a comprehensive understanding of the specific issues surrounding tantrum behaviors in autism within the context of Malaysian schools is crucial for developing effective interventions and support systems.

According to the National Autism Society of Malaysia (NASOM), the prevalence of autism in Malaysia is estimated to be around 1 in 79 children, indicating a substantial number of students affected by autism in the country (NASOM, 2018). Tantrum behaviors are common among children with autism and can significantly disrupt the learning environment, impede academic achievement, and create challenges for social

integration (Lim, E., Yeoh, S. L., & Nordin, N. (2019). By addressing this critical problem, educational institutions, teachers, and parents in Malaysia can enhance the learning experiences and overall well-being of students with autism, promoting their successful inclusion and development within school environments.

Animal-assisted intervention (AAI) has been increasingly recognized as an effective method for supporting students with autism spectrum disorder (ASD) who experience severe tantrums at school. AAI involves incorporating animals, typically trained therapy animals, into therapeutic and educational settings to promote physical, emotional, and social well-being. Here are several justifications for using AAI as the best method for supporting students with severe tantrums in autism:

Emotional Regulation:

Animals have a calming effect and can help individuals with autism regulate their emotions. Interacting with animals can reduce stress, anxiety, and aggression, which are often triggers for tantrums. A study by O'Haire, M. E. (2013) demonstrated that children with ASD exhibited significant reductions in irritability, social withdrawal, and hyperactivity after interacting with therapy dogs.

Social Engagement:

Animals can serve as social catalysts, facilitating social interactions and improving social skills in students with autism. Children with autism may find it easier to engage with animals, as animals provide non-judgmental and predictable interactions. A study by Nimer, J., & Lundahl, B. (2007). found that AAI increased social interaction, communication, and cooperation among children with ASD.

Motivation and Focus:

Animals can enhance motivation and engagement in learning activities. Students with autism often struggle with attention and focus, but the presence of animals can increase their interest and willingness to participate in educational tasks. A study by Grandgeorge et al. (2012) reported that the presence of a guinea pig improved attention and participation in children with autism during structured activities.

Sensory Integration:

Many individuals with autism have sensory sensitivities. Interacting with animals provides sensory stimulation and helps students regulate their sensory experiences. The tactile sensations of petting or grooming an animal can provide a calming and organizing effect. A study by Sams et al. (2006) demonstrated that children with autism showed decreased tactile defensiveness and increased social interaction when engaged in AAI with a therapy dog.

Generalization of Skills:

AAI can facilitate the generalization of skills learned during therapy sessions to real-world settings. Interactions with animals can help students transfer social and emotional skills to their interactions with peers and teachers in the classroom. A study by Martin and Farnum (2002) reported that children with autism who participated in AAI demonstrated improved social skills, communication, and self-esteem in school settings.

Objectives of Implementation

The objective of best practice implementation are :

1. To identify effective intervention strategies for managing severe tantrum behaviors in students with autism at school.
2. To assess the impact of the Animal-assisted interventions (AAIs) on reducing the frequency, intensity, and duration of severe tantrums exhibited by students with autism in the school setting.
3. To evaluate the overall effectiveness and feasibility of the intervention in improving the students' adaptive behaviors, emotional regulation, and social engagement while reducing disruption to the learning environment.

Best Practices Implemented

Based on best practices implemented I can conclude that Animal-assisted interventions (AAIs) have gained recognition for their positive impact on individuals with various disabilities, including autism. The presence of animals has been shown to reduce anxiety, increase social engagement, and improve emotional regulation in children with autism (O'Haire, 2013). This aligns with the underlying theory of social-emotional development, which posits that interactions with animals can facilitate emotional connections, communication, and self-regulation in individuals with autism (Banks & Banks, 2002).

Animal-assisted interventions offer numerous advantages for students with severe tantrums. The sensory-rich nature of these interactions, such as tactile sensations and gentle movements, can help modulate arousal levels and promote self-soothing strategies (et al., 2012). Furthermore, animals' non-judgmental and accepting nature creates a safe and supportive environment that encourages the development of social skills and emotional expression (Manczak et al., 2019).

Other interventions include Applied Behavior Analysis (ABA) approaches, social stories, visual supports, communication training, sensory regulation strategies, and parent training programs, which have shown promise in reducing tantrums and improving emotional regulation.Teacher also can establish a consistent daily schedule and visual aids (such as visual schedules) to help the student understand and anticipate what will happen throughout the day. Visual supports, including visual schedules, choice boards, and visual cues, are effective tools for reducing tantrums by providing clear communication and structure (Lang, R., et al. (2010).

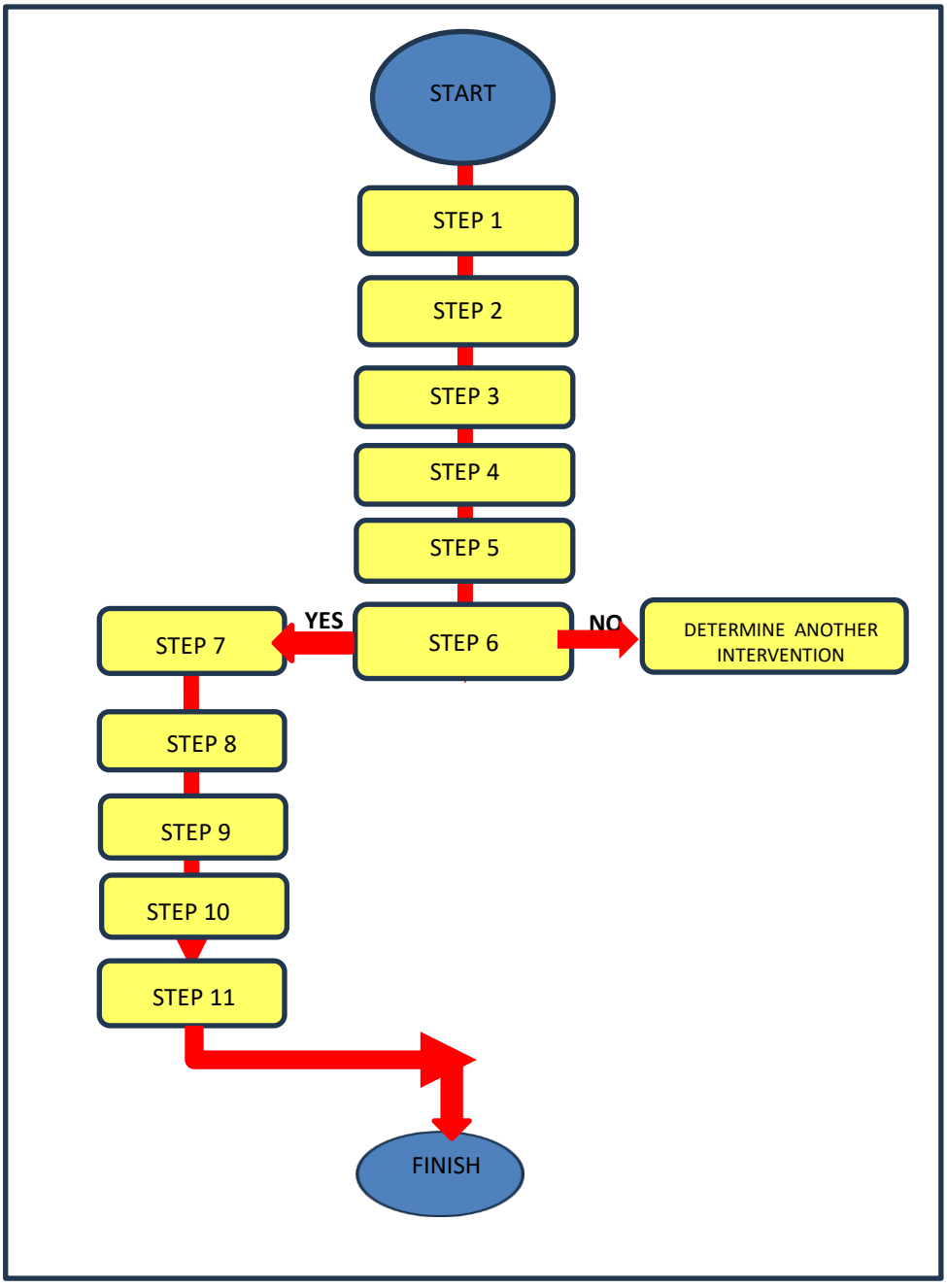
Ensure that all staff members follow " Rancangan Pendidikan Individu" and use consistent strategies and approaches when working with the student to promote a unified and supportive environment. Encourage regular communication and collaboration among staff members, including teachers, special education professionals, therapists, and support staff, to share insights, strategies, and progress.

Eventhough there are various strategies can be implement to manage tantrum behaviors among pupils with autism, an Animal-assisted intervention (AAI) as an effective method for supporting students with autism spectrum disorder (ASD) will be emphasize in this study. This study utilizes a mixed-methods research design, incorporating both quantitative and qualitative data. The research consists of pre- and post-intervention observations of tantrum behaviors, as well as surveys and interviews to gather feedback from stakeholders. A sample of pupils diagnosed with autism will be recruited from a school and all teachers involved in the education of this pupils will be invited to participate in the study.

Here's a flowchart outlining a intervention for a student with autism who is having a tantrum, involving taking them to see an animal outside the classroom:

Flowchart 1

Flowchart Of Animal-Assisted Intervention Intervention



Start
└─ Observe the student exhibiting signs of a tantrum

Step 1: Assess the Situation
  └─ Determine the severity of the tantrum
  └─ Ensure the student and others are safe

Step 2: Establish Communication
  └─ Use visual supports or assistive technology if needed
  └─ Encourage the student to express their feelings or needs

Step 3: Implement Calming Techniques
  └─ Provide a safe and quiet space
  └─ Use sensory tools (e.g., weighted blanket, fidget toys)
  └─ Teach deep breathing or self-regulation techniques

Step 4: Offer Choices
  └─ Present options for coping strategies (e.g., deep breaths, counting)
  └─ Allow the student to choose a preferred calming method

Step 5: Evaluate Potential Triggers
  └─ Reflect on possible triggers for the tantrum (e.g., sensory overload, communication difficulties, changes in routine)

Step 6: Consider Animal Intervention
  └─ Assess the feasibility of taking the student outside the classroom
  └─ Determine if an animal visit is appropriate and beneficial

Step 7: Escort the Student
  └─ Accompany the student to a designated area outside the classroom

Step 8: Animal Interaction
  └─ Introduce the student to a calm and friendly animal (e.g., therapy cat)
  └─ Allow the student to interact with the animal at their comfort level

Step 9: Monitor and Support
  └─ Observe the student's response to the animal interaction
  └─ Provide guidance or reassurance if needed

Step 10: Return to Classroom
  └─ Accompany the student back to the classroom once they have calmed down
  └─ Support their reintegration into the learning environment

Step 11: Follow-Up
  └─ Document the incident and any strategies used
  └─ Share relevant information with the student's support team

End : Finish the step

Impact of Best Practise Implemented

This research consists of pre- and post-intervention observations of tantrum behaviors, as well as surveys and interviews to gather feedback from stakeholders. Pre-intervention observations of tantrum behaviors will be conducted and teachers will complete surveys and participate in individual interviews to gather information about their experiences, perceptions, and challenges related to tantrum behaviors in children with autism. Besides that, participants will complete post-intervention surveys and interviews to gather feedback on the effectiveness of the intervention, changes in perceptions, and challenges encountered.

Table 1 below showing pre and post-intervention observations of a student with autism engaging in tantrum behavior before and after 4 weeks of implementing a therapy involving outdoor animal encounters such as fish, cat and ant.

Table 1

Pre and Post-Intervention Observations of Tantrum Behavior in a Student with Autism

Observation	Pre-Intervention	Post-Intervention
Day 1	5 tantrums	2 tantrums
Day 2	4 tantrums	1 tantrums
Day 3	2 tantrums	0 tantrums
Day 4	3 tantrums	1 tantrums
Day 5	3 tantrums	0 tantrums

In this implementation, the therapy involves taking the student outside to see animals. The observations were conducted over five day, both before and after 4 weeks the intervention. The tantrum behavior is quantified, and the numbers represent the frequency of tantrums displayed by the student on each day.

Before the intervention, the student exhibited a range of tantrum behaviors with varying frequencies. After implementing the therapy, there is a noticeable decrease in tantrum occurrences. The therapy seems to have had a positive impact on reducing tantrum behavior in this particular student with autism.

All feedback gained from the surveys and interviews among stakeholder will be analyzed to identify common themes and patterns related to the impact of the intervention and stakeholder experiences. Table 2 also shown simulated scenario illustrating the differences in a student's tantrum behavior with autism before and after 4 weeks of implementing an AAI intervention.

Table 2
Before and Post-Intervention Observations of Tantrum Behavior in a Student with Autism

Observation	Before Intervention	Post-Intervention
Duration of Tantrum	average of 20 minutes	average of 5 minutes
Items Thrown	throw objects within reach, such as pencils, books, or small toys.	decrease in throwing objects
Physical Condition	flailing limbs, hitting walls or furniture	decreased intensity of flailing limbs and reduced frequency of hitting walls or furniture.
Other Behaviors	self-injurious behaviors, such as head-banging or biting their hands	decrease in self-injurious behaviors.

Before Intervention:

Duration of Tantrum: The student typically engages in tantrums that last for an average of 20 minutes.

Items Thrown: During tantrums, the student tends to throw objects within reach, such as pencils, books, or small toys.

Physical Condition: The student's physical state during tantrums includes flailing limbs, hitting walls or furniture

Other Behaviors: The student may engage in self-injurious behaviors, such as head-banging or biting their hands, as a means of expressing frustration or seeking sensory input.

After Intervention:

Duration of Tantrum: The student's tantrums have reduced in duration, with most tantrums lasting for an average of 5 minutes.

Items Thrown: The student has shown a decrease in throwing objects during tantrums and has started to engage in alternative, non-destructive behaviors, such as squeezing stress balls or tearing paper.

Physical Condition: The student's physical condition during tantrums has improved, with decreased intensity of flailing limbs and reduced frequency of hitting walls or furniture.

Other Behaviors: The intervention has helped the student learn alternative coping strategies, leading to a decrease in self-injurious behaviors. The student now engages in sensory regulation techniques, such as deep breathing or seeking a sensory break, to manage frustration and sensory needs.

Summary and recommendations

Based on research, we can conclude that an Animal-assisted intervention (AAI) can be recognized as an effective method for supporting students with autism spectrum disorder (ASD). The findings also provide support for using AAI as an intervention to facilitate the social communication of children with autism. The role of AAI may be to help in this discovery and to enable persons with ASD in leading more independent and fulfilling lives. However the early application of an AAI is feasible and seems to improve communication and social interaction skills, both essential elements for social participation. Most finding agreed that AAI intervention may be a beneficial non-pharmacological therapy as a complementary approach within community care for children with ASD in the early years of their life. It is important to note that the effectiveness of interventions can vary depending on the individual needs of each child with autism. It's always recommended to consult with professionals and experts in the field when implementing interventions for students with autism. In conclusion, a comprehensive and individualized approach, involving collaboration among parents, teachers, therapists, and professionals, is crucial for tailoring interventions to specific circumstances and maximizing their effectiveness in managing tantrum behaviors.

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