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Animal Assisted Intervention- What is the impact on children with Autism Spectrum Disorder and their social development?

Animal-assisted intervention (AAI) is an 'umbrella' term referring to an animal being incorporated into educational, recreational and therapeutic experiences (O'Haire, 2014). AAI consists of Animal-assisted activities (AAA) and Animal-assisted therapy (AAT); AAT consists of an ongoing goal directed treatment process by trained personnel, whilst AAA consists of activities with animals that do not need to be implemented by trained personnel and the activity can be a 'one-off' (O'Haire, 2014). Recently the implementation of AAI for individuals with autistic spectrum disorder (ASD) has been a burgeoning area of interest (Pavlidis, 2008). Autism spectrum disorder is a complex condition to define as each individual case is unique, therefore symptoms differ from individual to individual (Wall, 2004, p.7). The strategies that early years professionals provide therefore need to be varied and diverse to suit each child's needs. Early intervention can enable a child to lead a richer and more productive life, building them to have a more positive future within the community (Pavlidis, 2008).

When researching AAI I ensured I participated fully with the planning, implementation that AAI's encompass to provide in-depth understanding that could inform my practice. The ultimate goal during the action research process I used was to implement my own AAI; 'the hamster activity' to demonstrate my learning and understanding of AAI. The data taken consists of four observations over a six week period at a special needs school. I recorded three children with varied levels of ASD and their experiences of AAI through a method of narrative observations. The observation recorded the behaviour before, during and after the AAI's. To maintain confidentiality the children are named; Child J, Child H and Child W. For the purposes of this essay not all observations and their analysis will be included, only a brief insight to the project will be shown. To ensure that the information gathered is clear and concise it was necessary to code the data into categories of similar themes and events that contribute to children's social development. The categories are; emotional responses, positive interactions, and communication and language.

Emotional responses

I observed the children demonstrating their pleasure of being in the presence of animals. In all four observations the children are described as exhibiting positive behaviours such as 'smiling and giggling' or demonstrating behaviours of feeling at ease. Ensuring that the psychological well-being of children with ASD is supported is a particularly important factor when providing interventions. De-la-Iglesia and Olivar (2015) state that the nature of ASD can negatively impact on children's psychological well-being due to the isolation and distress that many children with ASD experience, thus a child's disposition for learning and

developing is restricted as they are not in the psychological state to socially develop or interact with others.

Observation two and three taken of Child H highlights how horse riding therapy sessions can reduce a child's anxiety. Before the horse riding session Child H displays behaviour suggesting that he was stressed, 'grinding his teeth, makes a humming noise whilst rocking backwards and forwards, waving his fingers in front of his face'. These behaviours are common in children with ASD; they act as a self-regulatory way for children with ASD to calm themselves down, or to shut out the environment around them (Ambitious about Autism, 2015). When in the presence of the horse Child H 'continues to hum but less loudly', and once he is riding the horse 'he stops humming, sits up straight and clicks his tongue in his mouth', suggesting that he was being stimulated and feeling at ease with the environment around him. The practitioner constantly reassured Child H through methods of communicating verbally and visually through Makaton. The practitioner and the horse is the same each time which ensures consistency. This promoted Child H to develop an attachment with both the practitioner and the horse, aiding Child H to have a secure base. The observation on the bus after the horse riding session suggests that Child H is still feeling at ease and calm and contributing to his behaviour of 'grinding his teeth but only occasionally waving his finger in front of his face' and a positive interaction 'leaning his head on practitioners A's arm for the rest of the bus journey'.

A hypothesis by Levinson (1969, cited in Geist 2011, p.252) provides a possible explanation to Child H's behaviours during horse riding. Levinson (1969, cited in Geist 2011) suggested that the therapeutic tendencies animals possess can act as transitional objects; Transitional objects refers to 'objects' acting as a component for children to self-regulate and provide a sense of security that attachment figures such as parents can provide (Applegate, 1984). Before both observations Child H uses self-stimulatory behaviours common in children with ASD. When riding the horse he does not use these behaviours suggesting the horse is stimulating his needs and sense of security, thus acting as a transitional object. Fine (2010) suggests that non-verbal individuals with ASD need sensory input such as tactile sensations and smells to create a clearer image of the world. Child H perhaps retained the smell and the tactile sensations of a horse, bringing a sense of security and supporting him to begin to understand the world around him.

Positive interactions

Most of the interactions seen in the observations were between the children and their peers, or the practitioners involved. The animals however appear to act as a medium for the children to practise their social skills, or a common ground providing the opportunity for the children to interact with each other.

Cafiero (2010) states that many practitioners working with children with ASD find it challenging to maintain children's interest and engagement in the learning environment. Garretson et al. (1990, p.101) stated that 'autistic children's difficulties in sustaining attention on imposed tasks may be attributable partly to a developmental delay and partly to the motivational contingencies of a task'. Therefore it was fundamental when planning

interventions for children with ASD to motivate and engage them to provide influential and positive learning and developmental outcomes. In all four observations the children demonstrated their desire and interest to interact with animals. Sussman (1985 and Lipsky (2012, cited in Santomauro, 2012) suggest that due to the non-judgemental, and clear intentional behaviour that animals possess they allow children with ASD to have confidence and trust in them, facilitating their understanding of the concept of human interactions.

In the fourth observation I planned the aims and objectives individually for both children according to their stage of development. Child W cooperated well with sharing the hamster's attention with Child J. Several times he allowed me to take the hamster out of his hands so that Child J could have his turn to stroke the hamster. Sharing is a particular prosocial skill that is significant in building successful friendships with his peers (Heriot, n.d)

Child J demonstrates through this activity his awareness of others, he was gentle with the hamster whilst also using positive language about the hamster throughout. Child J demonstrates his desire for friendship and using positive skills such as compassion to form this relationship.

According to the National Autistic Society (n.d) children with ASD need social skills and situations to be simplified, explained and practised so children with ASD can learn and develop at their own pace. The activities planned within the AAI sessions also appear to scaffold the children's learning and understanding of social skills and concepts. The concept of 'scaffolding' children's learning and understanding of concepts through social constructivism is most notably associated with Vygotsky (1978, cited in Walker and Berthelsen, 2008). Vygotsky emphasised the importance of children being active learners, and the role of a more knowledgeable other; Observation four particularly demonstrates the practitioner scaffolding Child W's learning by reinforcing and role modelling positive behaviours, supporting his concept of social skills. Furthermore the planned intervention took into account his tendency to isolate himself in solitary play, therefore the activity was planned accordingly to his needs by providing a practical and broken down concept of shared play. The hamster's role in this activity acted as a motivator and engaged Child W to be actively involved with his peer by providing a common ground for them to share their enjoyment, play together and practice social skills.

Communication and Language

Establishing effective communication skills is essential in facilitating children with ASD to achieve positive life outcomes as it provides the foundations for children to feel connected to others as well as empowering children to express their needs and interests.

The communication and language skills observed in observation four are quite significant regarding Child W's social development. It is mentioned in the brief that Child W has 'limited language skills.' However throughout the activity Child W clearly communicates his desire to interact with the hamster; and uses a wider range of language regarding the hamster; Child W also appeared to develop his listening skills during the activity. At the beginning he held the hamster roughly but after explaining this, Child W held the hamster appropriately and gently. Child W may have developed his communication and language

skills during the activity as he could have felt that there was a purpose to verbally express himself and listen to others.

Child J in observation four demonstrated his ability to interpret others body language; he observes the hamster hiding and suggests that he is scared. Child J then uses constructive ways to communicate with the hamster whilst considering how the hamster is feeling.

Autism Educational Trust (n.d) suggest that many children with ASD do not see a reason to communicate with others; children with ASD are often described as 'being in a world of their own' (Department for Children, Schools and Families, 2009, p.9). Their motivation to interact and learn important communication skills are often hindered. However Child W in observation four appeared motivated to engage with the hamster and others during the activity. Child W used a wide range of verbal language to express his thoughts and interest regarding the hamster. The hamster therefore provided a purpose for Child W to practice his communication skills. Similarly Carter-Johnson (2016) describes in her memoirs the impact that their pet cat began to have on her daughter who has profound autism and limited verbal skills. Carter- Johnson (2016) described how her daughter's speech began to dramatically develop centred around the cat. Her speech then continued to develop to other areas of her everyday life, 'something had stirred- the pathways of her speech were clearing' (Carter-Johnson, 2016, p.233).

Communication and language involves more than just verbal speech. It is a complex system of conveying messages to another through body language, gesture, intonation (Smidt, 2007). Children with ASD often have difficulties with the complexity of communication, often finding it difficult to interpret social behaviour and communication from others (Autism Educational Trust, n.d). However a hypothesis by Cirulli et al. (2011) suggests that body language and behaviour of animals are easier for children with ASD to read and interpret. The simplicity of the movement patterns of body language from an animal may provide a medium for a child to interpret the subtle body language that humans convey (Cirulli et al., 2011). In observation four Child J observes the body language that the hamster is displaying, the hamster is hiding suggesting that he is scared. Child J processes what the hamster's body language is suggesting and constructively changes the tone of his voice. This is significant to Child J's social development; he is understanding social cues and concepts whilst developing his theory of mind by processing the thoughts and emotions of another. The developing skill that Child J displays has the potential to be applied to building his relationships with his peers

The aim of the research project was by no means to find a 'single truth', but generate understanding for my own professional development and to show other early years practitioners of the impact that AAI may possess for improving outcomes for children with ASD. It is important to note that every child is different, the symptoms of ASD affect every child differently, and not every child has an affinity with animals. However It is essential that practitioners have a wide variety of strategies and knowledge that can meet the diverse needs of children. My hope for this study is others may benefit and learn from it as much as I have. The findings from the research suggest that AAI can in fact positively impact children with ASD and their social development. It encompasses key aspects that are fundamental to

improving future outcomes for children on the spectrum such as; promoting independence and a child's autonomy, connecting children to others, motivating their engagement, and providing for children's psychological well-being. The children's emotional reactions were the most promising finding of this study, the joy that children with ASD can find when interacting with an animals should not be disregarded as it creates a healthy and positive disposition for learning and quality of life. Further research into AAI could provide additional insight into its potential but this study has shown it has the potential in connecting practitioners and parents to children on the spectrum into understanding each other's world.

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