Background:

Kindergarten is a time for playing, learning to get along with others, and it is the first step in a child's educational experience. However, this experience and the transition to kindergarten can be challenging for any parent and student, but even more so for a family whose student has Autism Spectrum Disorder (Starr et. al., 2014). Research indicates that with the proper assessments and interventions students can experience greater outcomes. One of the most effective ways to assess and support students with ASD includes using Applied Behavior Analysis or (ABA). "According to the U.S. Surgeon General's Report, Thirty years of research demonstrated the efficacy of applied behavioral methods in reducing inappropriate behavior and in increasing communication, learning, and appropriate social behavior." (ABA Basics, 2009 - 2013). This case study will demonstrate the assessment process and the function of behavior for Johnny, a general education kindergarten student diagnosed with Autism Spectrum Disorder.

According to teachers and staff, "Johnny is a sweet and affectionate child who loves getting and giving hugs and high-fives." He is new to the state and there is limited paperwork on his present levels. His teacher reports, Johnny enjoys being read to. He is able to sit quietly on the carpet during story time if seated directly next to her, can follow 1 and 2 step directions with multiple prompts and he is able to complete some grade level math programs on the computer. Johnny also enjoys playing on the playground specifically on the swings and monkey bars. Parent report states he is a beginning reader with knowledge of the alphabet, but there is no assessment information at this time. His teacher also reports Johnny is struggling compared to his peers. Johnny at times can be disruptive by crying and throwing his materials

when feeling frustrated. In addition, he demonstrates limited expressive language with inconsistent responses to peers and teachers including repeating words referred to as "echolalia." His teacher also reports fine motor difficulties, noting a fist grip when coloring with crayons and that Johnny does not complete paper and pencil tasks. She states, he demonstrates a preference for the computer versus writing. Johnny also demonstrates difficulty with his peers and has not yet learned to share toys appropriately, which is not developmentally unusual for this age group, but it is noted that he also pokes and pushes his classmates and has demonstrated inappropriate playground behavior that could be dangerous to himself and/or others. Furthermore, his teacher also reports that Johnny puts his hands over his ears and cries occasionally during class and has difficulty staying in his seat.

Intended Outcome:

Students with Autism Spectrum Disorder may experience a multitude of development impairments including difficulty with communication, social anxiety, cognitive deficits, and lack of adaptive skills and behavior difficulties just to name a few. Each individual may also demonstrate different levels of severity with those impairments and it is because of these factors, a team based collaborative approach to assessments and providing research based interventions is the key to creating improved long term outcomes. According to Donaldson and Stahmer, "Given the prevalence of ASD at 1 in 68 children (Centers for Disease Control and Prevention, 2014) and the high cost of serving these children within schools, the need for effective, comprehensive service provision and efficiency within interdisciplinary teams is paramount" (2014). It is the intent of this case study to provide appropriate support and recommendations for collaboration and the best outcome for the learner.

Collaboration and Assessment:

The first step in the assessment process for Johnny is to have his teacher and/or his case manager (Education Specialist) meet with the family to discuss their concerns and vision for Johnny's success. Because Johnny is already building a relationship with his teacher by sitting with her during story time, she is able to leverage this to continue building trust with him. Relationship building is an important first step in the process. One of the most important aspects of developing a strategy to support a student with ASD is to concentrate on the individual and identify his or her strengths, needs, challenges, and preferences (Community-based Skills Assessment, 2022). In addition, the quality of a child's transition to kindergarten has regularly been shown to influence their subsequent academic success (Starr et. al., 2014).

The next step in the process for Johnny and his family is for the teacher and education specialist to take a team based approach to assessment and intervention based on teacher reports. According to Johnny's teacher, it appears Johnny demonstrates difficulty in the following areas: fine motor skills and possible sensory sensitivities, expressive and receptive language, social skills, functional behavior, and academics. According to research, autism spectrum disorders are characterized by impaired social communication, repetitive behaviors, and restricted interests, and can include intellectual disabilities and language deficits. Furthermore, because the disorder is pervasive across all areas of development, communication, social, cognitive, play, motor, and adaptive skills, a team based approach necessitates the involvement of multiple disciplines in effective intervention (Donaldson & Stahmer, 2014).

Areas of Assessment:

After the initial meeting with parents, the case manager should set up a second meeting to discuss Johnny's unique needs as a student with ASD. This second meeting should include the school psychologist and service providers that may become part of Johnny's team. During this meeting each service provider can discuss their area of assessment and can then ask for and obtain parent consent to complete the appropriate evaluations. Once the team has completed their assessments, the next meeting would be the Multidisciplinary meeting or the Initial IEP meeting to discuss whether or not Johnny qualifies for services and which ones. This meeting would be scheduled with service providers and parents so that collaboration of appropriate interventions and goals can be created. The Multidisciplinary Team members and their assessments are as follows:

I. Speech and Language Assessment completed by a Speech-language pathologist (SLP); According to Donaldson & Stahmer, "Social communication deficits are a core feature of ASD. Certified and licensed SLPs, with their specialized background and expertise in social and communication skills, are particularly well qualified to provide services for these students" (2014.) Johnny demonstrates limited and inconsistent responses to peers and teachers as well as exhibits "echolalia." He also demonstrates difficulty with peer interactions and also puts his hands over his ears and cries occasionally in class. The SLP will provide screening for expressive and receptive language that can support the team with why Johnny demonstrates inconsistent responses, as well as completing an assessment in social skills communication, to identify reasons for Johnny's echolalia. The SLP will complete parent and teacher interviews and observations for identification of any sensory sensitivities that Johnny may be experiencing

using the antecedent, behavior, consequence model of applied behavior analysis to determine why Johnny may be placing his hands over his ears and crying during class. This may also include but not limited to, interviews with parents, teachers, caregivers and if possible with Johnny also about his behaviors noticed both at school and at home. During direct observations of Johnny's activity, the SLP will be taking language samples and recording conversations and interactions that he has with others to identify if he is following instructions and if he is reciprocating. In addition to observations and interviews, the SLP will complete standardized assessments and clinical evaluation of language fundamentals using the (CELF-5) to assess the student's ability to understand language and the (CASL-2) to assess expressive and receptive language.

II. Functional Behavior Assessment completed by a Board Certified Behavior Analyst (BCBA); The BCBA will look to identify the function of Johnny's behavior. According to Leaf et. al., "One of the biggest advancements in the last 40 years in the field of behavioral intervention for individuals diagnosed with ASD is the development and evolution of functional analyses. The purpose of a functional analysis is to determine the conditions under which problem behavior occurs (e.g., to obtain teacher attention) and inform intervention to teach a function-based replacement behavior (e.g., teaching the individual to gain attention appropriately)" (2020). The BCBA will complete parent, caregiver and teacher interviews and specifically look at Johnny's behaviors to identify the function of those behavior(s). Once the interviews are complete the next step will be to use a function of behavior matrix to determine if Johnny is trying to avoid and/or obtain attention, tangibles or activities and/or sensory conditions or stimuli. Specifically, the BCBA will use the ABC model of the functional analysis to identify

the "A" - antecedent or event setting of each behavior and the "C" - consequence or reinforcers he receives that influence the current behavior either good or bad when Johnny has difficulty staying in his seat, when Johnny disrupts the class by covering his ears, crying and throwing his materials, why Johnny pushes and pokes his peers and why he is demonstrating inappropriate and dangerous playground behavior. Once the target behaviors are defined the BCBA will conduct a series of observations to obtain a baseline and track the frequency and/or duration of the behaviors. The BCBA will then organize a pre-team meeting to discuss replacement behaviors and/or interventions and appropriate reinforcements for an FBA and whether or not the interventions will be socially valid and whether the team can implement with fidelity. The team may also want to develop a Behavior Intervention Plan to target Johnny's dangerous behaviors. Some of the activities that Johnny enjoys may also be used as positive reinforcements for the desired behaviors such as, giving high-fives, story time and strategic seating near the teacher as well as computer time and playground time. Once the plan is developed it will be the job of the entire team to progress monitor and keep data on whether or not the intervention and replacement behaviors are effective. The BCBA will then present the information to the family during the formal IEP meeting and will ultimately lead the team during progress monitoring and evaluation of implementation fidelity.

III. Social Skills Assessment will be a team collaboration between the SLP, BCBA, School Psychologist and the Education Specialist to address Johnny's difficulty with his peers and his interactions with others both in the classroom and on the playground. Each team member will be completing observations as well as conducting teacher and parent interviews. Specifically, the School Psychologist will send out a series of parent and teacher rating scales

called the (BASC-3) "The Behavior Assessment System for Children," to help identify areas of behavioral challenges, difficulties with social skills and communication just to name a few. The BCBA will use an assessment called the (VB-MAPP) "Verbal Behavior Milestones Assessment and Placement Program," that will also help to measure social skills along with any other skills that a typical student would need to have to be successful in kindergarten. The VB-MAPP also includes a barrier assessment tool that measures some of the common difficulties that impede a student's learning. Both the VB-MAPP and the BASC-3 are research-based assessments and along with the SLP's assessments and observations will be able to make an informed decision regarding appropriate social skills interventions and goals for Johnny. Another research-based criterion referenced assessment the Education Specialist will administer. The ABLLS-R, "Assessment of Basic Language and Learning - Revised" will review skills in specific target areas including language and social interaction. (Usry et. al., 2019) This assessment will also be a great tool for progress monitoring once the team decides on the appropriate interventions.

IV. Fine Motor Skills and Sensory Assessment to be completed by the Occupational Therapist (OT). The OT will assess and address Johnny's fine motor skills through a series of observations and skills based assessments to determine if Johnny is indeed avoiding using pencil and paper due to difficulties with fine motor skills. The OT will also complete a comprehensive sensory processing assessment using the Winnie Dunn Model of sensory processing. According to Cho, "The Dunn's Model of Sensory Processing proposes four basic patterns of sensory processing which emerged from the interaction of the neurological threshold and self-regulation. Neurological threshold is a personal range of threshold for noticing and responding to different sensory events in everyday life. People who have low sensory threshold would notice and

respond to stimuli more often because their neurological system activates easier and more readily to sensory events" (2007). By assessing and looking at Johnny sensory processing the OT and the team can then use this information to help identify why he demonstrates behaviors such as crying and throwing his materials when feeling frustrated and why he puts his hands over his ears and cries occasionally during class as well as possibilities as to why he has a hard time staying seated.

V. The final area for assessment will be in the area of cognitive functioning and academics and can be completed by both the Education Specialist and the School Psychologist. According to the classroom teacher, Johnny can complete some grade level math programs on the computer, follow 1 and 2 step directions with multiple prompts, and according to parent he is a beginning reader with knowledge of the alphabet. However, Johnny's teacher notes that he is struggling compared to his peers. Johnny's behaviors could be his way of saying the work is too hard and/or there is a need to present the information in ways that Johnny learns best such as either with visual models and schedules, hands on activities and/or auditory directions broken down into one and two steps. The School Psychologist will administer the WIAT-4, "Wechsler Individual Achievement Test-4th Edition" to assess academic performance as well as listening comprehension, oral expression, Orthographic processing, phonological processing and oral language. The Education Specialist will also assess academics both through direct observations and classroom samples and through the KTEA-3 "Kaufman Test of Educational Achievement Third Edition" to look at core academic areas such as reading, writing and mathematics. Together the School Psychologist and the Education Specialist will determine Johnny' academic

strengths and areas of need as well as recommend accommodations and modifications to support Johnny directly in the classroom.

The team will reconvene to discuss their findings after completing Johnny's assessments before presenting the information to the parents and creating an Individual Education Program for Johnny. One benefit to the team collaboration model of assessment allows for greater efficacy and stronger outcomes for students with autism spectrum disorder. According to Donaldson et. al., "Working together can lead to improved outcomes for children with ASD served in schools by improving the developmental appropriateness of communication goals and instructions, addressing functional use of these skills, increasing the use of evidence-based strategies, and improving challenging behaviors. Having a basic understanding of each professional's areas of expertise, clinical skills, and goals can improve collaboration and, ultimately, child outcomes" (2014).

Key points:

- 1. Relationship building is the key to supporting students and families with ASD.
- 2. A team based approach helps provide comprehensive assessment diagnostics.
- 3. A Functional Behavior Analysis can help support the team with appropriate reinforcers and lead to intervention efficacy.
- Collaboration with and among team members helps to support the unique and diverse needs of students with ASD using guidelines of the Applied Behavior Analysis.
- 5. Research based assessments lead to research based interventions.

Conclusion:

According to studies, children like Johnny with ASD, achieve better outcomes with the right assessments and interventions. Applied Behavior Analysis (ABA) is one of the most successful methods for evaluating and supporting students with ASD. Although each of the above assessments look at specific skills for Johnny it is the goal of the team to develop a plan that follows the guidelines of the applied behavior analysis. According to Donaldson et. al., "Applied behavior analysis is a scientific approach to examining behavior and has been widely applied to intervention for individuals with special needs from its inception, many everyday interactions and explanations for human behavior are based on these principles. Interventions based on ABA adhere to an operant model, which holds that learning is the result of consequences that follow a behavior, and these consequences determine the likelihood of a behavior occurring again in the future." (2014) When the team reviews Johnny's assessment information they will be able to identify antecedents (setting events) such as is the work to hard, does Johnny have sensory sensitivities, does he understand and have receptive language that affect his behavior and what are the consequence that drives the continued behavior. Once the team reviews the data they can then identify appropriate replacement behaviors, accommodations and modifications, appropriate positive reinforcers and develop a plan.

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