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### What Is Joint Attention?

- Joint attention occurs when a child and at least one adult are focusing on the same object. To be considered true joint attention, they both need to be aware that the other person is also focused on that object.
- Joint attention is so important because it is one of the foundational building blocks of language. Without the development of joint attention, other language skills will be delayed or not develop at all. (Baldwin, 1995; Hahn, 2018; Tomasello, 1995)

### Development of Joint Attention

- Joint attention development does not vary among typically developing children. (Hahn, 2018)
- The beginnings of joint attention skills are eye contact and being aware of what others around you are paying attention to.
- Joint attention becomes noticeable around the third month of life.
- At three months old, infants begin to pick up on cues from social partners, such as parents and other infants.
- The child fine tunes their joint attention skills over time by increasing their frequency of interaction and responding to more subtle bids.
- Cues that babies use that are related to joint attention to monitor the behavior of others are emotional signals, eye contact, bodily movements and/or body language.
- By the second year of life, children have progressed to the next step and are using cues to learn about their world. (Striano, 2006)

### What Is Autism Spectrum Disorder?

Autism spectrum disorder (ASD) is a condition related to brain development that impacts many aspects of a person's life, specifically their language and communication abilities. The term "spectrum" in ASD refers to the wide range of possible symptoms and severity between different cases. (Mayo Clinic, 2018)

### Joint Attention in Typically Developing Children and Children with Autism Spectrum Disorder

- Joint attention is thought of as a prerequisite of spoken language, and deficits in joint attention early in life are often used as an indicator of ASD. (Manwaring, 2017)
- Joint attention development will be delayed in all children with ASD, but the severity of the delay will vary.
- A lack of joint attention is one of the earliest indicators of ASD. (Bottema-Beutel, 2016)
- Children with ASD may have joint attention skills and then lose these skills. (Hahn et. al)
- Joint attention is how many typically developing children learn vocabulary.
  - The lack of joint attention that children with ASD have decreases their opportunities to learn that vocabulary. (Adamson, 2019)
- Lack of joint attention will result in a lack of social skills, due to a lack of understanding other's cues. This is because children with ASD tend to have less interest in other people and more interest in objects. Examples of these undeveloped social skills include:
  - Realizing that they are unintelligible/not understood.
  - Realizing which children want to engage with them/ which ones do not. (Adamson, 2010)



### Joint Attention and Overall Language Development

- By 12 months of age babies do not require joint attention for simple tasks, but will benefit from joint attention for more cognitively challenging tasks.
- By 13 months of age babies with typically developing joint attention skills will most likely be able to extract basic information independently.
- By 18 months of age babies are using other people's eye gaze towards objects to learn labels for those objects. (Striano et. al)
- Teaching certain foundational skills such as joint attention, facilitates language learning later in life. (Schreibman, 2015)
- The higher the child's joint attention skills are, the more likely they are to develop expressive and receptive language skills. (Striano et. al)
- When the child becomes preschool age and still has not developed joint attention and related skills, it will have a negative effect on their play with other children. (Adamson et. al)

### Natural Developmental Behavioral Interventions

- The goal of these therapies is to increase foundational language skills, therefore increasing overall speech, language and communication abilities.
- The key for those with ASD is early diagnosis, early intervention, and involvement and support from the family. (Schreibman et. al)
- Having a strong unit between parents, teachers, and other adults around the child involved in targeting joint attention skills are most likely to result in improved language outcomes.
- Therapists have begun using the "Natural Developmental Behavioral Interventions" (NDBI)
- Proven to have the most successful results when the child is young and has not yet developed undesired behavioral patterns.
- Promotes language and social skills development.
- Focus on foundational language skills, such as joint attention, gestural communication and eye contact, rather than rely on verbal imitation.
- This approach combines multiple therapeutic techniques in natural settings, utilizing a variety of behavioral strategies to teach developmentally appropriate and communicative skills.
- Parents are able to implement the techniques and strategies learned through these interventions in regular day activities, such as meal and bath time.
- This intervention emphasizes a client centered approach, as demonstrated by following the child's motivations, utilizing natural contingencies and also implementing positive reinforcement. (Manwaring et. al)

### References

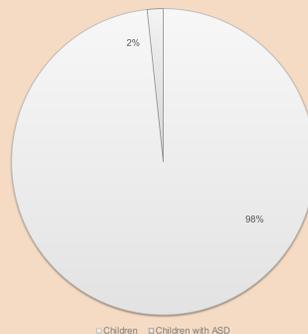
- Adamson, L., Bakeman, R., Suma, K., & Robins, D. (2019). An expanded view of joint attention: Skill, engagement, and language in typical development and autism. *Child Development, 90*(1), 18. doi:10.1111/cdev.12973
- Adamson, L., Deckner, D., & Bakeman, R. (2010). Early interests and joint engagement in typical development, autism, and Down syndrome. *Journal of Autism and Developmental Disorders, 40*(6), 665-676. DOI:10.1007/S10803-009-0914-1
- "Autism Spectrum Disorder." *Mayo Clinic*, Mayo Foundation for Medical Education and Research, 6 Jan. 2018
- Baldwin, D. (1995). Understanding the links between joint attention and language. In C. Moore & P.J. Dunham (Eds.), *Joint attention: Its origins and its role in development*.
- Bottema-Beutel, K. (2016). Associations between joint attention and language in autism spectrum disorder and typical development: A systematic review and meta-regression analysis. *Autism Research, 9* (10), 1021-1035. doi: 10.1002/aur.1624
- Hahn, L. J., Loveall, S. J., Savoy, M. T., Neumann, A. M., & Ikuta, T. (2018). Joint attention in Down syndrome: A meta-analysis. *Research in Developmental Disabilities, 78*, 89-102. doi:10.1016/j.ridd.2018.03.013
- Manwaring, Stacy S., and Ashley L. Stevens. "Does Teaching Joint Attention Improve Language in Children With Autism Spectrum Disorder?" *Perspectives of the ASHA Special Interest Groups*, vol. 2, no. 1, 2017, pp. 11-26., doi:10.1044/persp2.sig1.11.
- Schreibman, L., Dawson, G., Stahmer, A.C. et al. Naturalistic Developmental Behavioral Interventions: Empirically Validated Treatments for Autism Spectrum Disorder. *J Autism Dev Disord 45*, 2411-2428 (2015) doi:10.107/s10803-015-2407-8
- Striano, T., Chen, X., Cleveland, A., & Bradshaw, 2. (2006). Joint attention social cues influence infant learning. *European Journal of Developmental Psychology, 3*(3), 289-299.
- Tomasello, M. (1988). The role of joint attention in early language development. *Language Sciences, 11*, 69-88.
- Zampini, L., Salvi, A., & D'Odorico, L. (2015). Joint attention behaviours and vocabulary development in children with down syndrome. *Journal of Intellectual Disability Research: Jidr, 59*(10), 891-901. doi:10.1111/jir.12191

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Prevalence of ASD



The more joint attention skills a child has, the more likely they will become a verbal speaker one day.

This is because with more joint attention skills, the child will have more social interactions.

Nonverbal Children with ASD

