Editorial: The Importance of Early Intervention

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This issue of the Journal includes a study of autism treatment implemented during the first year of life (Rogers et al. 2014). This work pilot tested a relatively short-term, low-intensity intervention with a group of infants already displaying symptoms of autism. At 36 months, the treatment groups exhibited lower rates of autism symptomatology and intellectual disability. As the authors rightly note, the results await replication in a larger, randomized trial. This single study does, however, raise several important issues with potential implications for social policy and important research directions

Since the report on educating young children with autism from the National Research Council (2001), we have known that for many—though not all—preschoolers with autism evidence-based interventions with slightly older preschool children are associated with improved outcomes. As the NRC report noted, the programs evaluated all had some degree of evidence base, and the program used in the current study was built on Dr. Roger’s model (see Rogers et al. 2012). The results suggest that with earlier identification and a developmentally informed treatment of relatively low intensity significant gains can be made early in life when it seems likely that the potential for change is greatest. This is presumably the case given that, as time goes on, symptoms of autism progressively interfere with normative learning. Work from other centers, including my own, has similarly shown potential for intervention to have significant impact on both overall developmental gains,

lessening of autism symptomatology, and even changes in the social brain in tasks that involve social activities using EEG and fMRI technology (Voos et al. 2012). It clearly will be important for the field to build on these exciting developments.

The paper does raise other issues that should be mentioned, at least in passing. One is the issue/problem of early diagnosis, which may be less reliable until children approach their third birthday (Chawarska et al. 2014). Data on the crucial issue of early diagnosis and risk assessment have been somewhat conflicting (Chawarska et al. 2012; Ozonoff et al. 2010), perhaps reflecting differences in methods used. Although even significant risk for autism is clearly enough to prompt clinical attention, it will be important to implement innovative approaches to assessment of risk in this young population. While implementation of screening tests/checklists remains important the development of more performance based approaches will be of great interest (Volkmar et al. 2014a).

Finally, and perhaps somewhat paradoxically, this paper focused on young children also should remind us of the need to focus on adolescents and adults with autism or a history of autism. Early intervention seems to be significantly improving the outcomes for many individuals who are now going to college and becoming more independent adults (Fein et al. 2013); however, at the same time, vulnerabilities may persist in various areas, including adaptive and social skills as well as potentially increased risk for some mental health problems (Volkmar et al. 2014b). Although potential supports are available (Brown 2010), many gaps remain in our knowledge with few data on issues like employment and mental health status and need (Piven et al. 2011). It is clear that work across the entire age span is critically needed.

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References

- Brown, J. T. (2010). Review of realizing the college dream with autism or Asperger syndrome. [Authors: Palmer, Ann Title: Realizing the college dream with autism or Asperger syndrome Year: 2006 Other Info: Jessica Kingsley Publishers, Philadelphia, PA., 176 pp., \$19.95]. *Journal of Autism and Developmental Disorders*, 40(6), 782. doi:[10.1007/s10803-009-0846-9](https://doi.org/10.1007/s10803-009-0846-9).
- Chawarska, K., Macari, S., Volkmar, F. Kim, S. H., & Shic, F. (2014). Autism in infancy and early childhood. In F. Volkmar, S. Rogers, R. Paul, K. Pelphrey (Eds.), *Handbook of autism and pervasive developmental disorders*. Hoboken, NJ: Willey.
- Chawarska, K., Macari, S., & Shic, F. (2012). Context modulates attention to social scenes in toddlers with autism. *Journal of Child Psychology and Psychiatry*, 53(8), 903–913. doi:[10.1111/j.1469-7610.2012.02538.x](https://doi.org/10.1111/j.1469-7610.2012.02538.x).
- Fein, D., Barton, M., Eigsti, I.-M., Kelley, E., Naigles, L., Schultz, R. T., Tyson, K. (2013). Optimal outcome in individuals with a history of autism. *Journal of Child Psychology and Psychiatry*, 54(2), 195–205. doi:[10.1111/jcpp.12037](https://doi.org/10.1111/jcpp.12037).
- National Research, C. (2001). *Educating young children with autism*. Washington, DC: National Academy Press.
- Ozonoff, S., Iosif, A.-M., Baguio, F., Cook, I. C., Hill, M. M., Hutman, T., Young, G. S. (2010). A prospective study of the emergence of early behavioral signs of autism. *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(3), 256–266.e251–252.
- Piven, J., Rabins, P., & Autism-in-Older Adults Working Group. (2011). Autism spectrum disorders in older adults: Toward defining a research agenda. *Journal of the American Geriatrics Society*, 59(11), 2151–2155. doi:[10.1111/j.1532-5415.2011.03632.x](https://doi.org/10.1111/j.1532-5415.2011.03632.x).
- Rogers, S. J., Estes, A., Lord, C., Vismara, L., Winter, J., Fitzpatrick, A., Dawson, G. (2012). Effects of a brief Early Start Denver Model (ESDM)-based parent intervention on toddlers at risk for autism spectrum disorders: A randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, 51(10), 1052–1065. doi:[10.1016/j.jaac.2012.08.003](https://doi.org/10.1016/j.jaac.2012.08.003).
- Rogers, S. J., Vismara, L., Wagner, A. L., McCormick, C., Young, G., & Ozonoff, S. (2014). Autism treatment in the first year of life: A pilot study of infant start, a parent-implemented intervention for symptomatic infants. *Journal of Autism and Developmental Disorders*. doi:[10.1007/s10803-014-2202-y](https://doi.org/10.1007/s10803-014-2202-y).
- Volkmar, F., Reichow, B., & McPartland, J. (2014a). *Adolescents and adults with autism spectrum disorders*. New York: Springer.
- Volkmar, F., Siegel, M., Woodbury-Smith, M., King, B., McCracken, J., & State, M. (2014b). Practice parameter for the assessment and treatment of children and adolescents with autism spectrum disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 53(2), 237–257.
- Voos, A. C., Pelphrey, K., Tirrell, J., Bolling, D. Z., Vander Wyk, B., Kaiser, M. D., et al. (2012). Neural mechanisms of improvement in social motivation after pivotal response treatment: Two case studies. *Journal of Autism and Developmental Disorders*. doi:[10.1007/s1083-012-1683-9](https://doi.org/10.1007/s1083-012-1683-9).