

Sally J. Rogers and Geraldine Dawson: Review of Early Start Denver Model for Young Children with Autism: Promoting Language, Learning and Engagement

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Among the crowd of treatments, interventions, and purported cures that proliferate around autism spectrum disorders, the Denver Model has long stood as a beacon of empirical rigor and developmental sensitivity. In their new book, *Early Start Denver Model for Young Children with Autism: Promoting Language, Learning and Engagement*, Sally Rogers and Geri Dawson, two of the most experienced and accomplished psychologists working in autism today, have laid out the details of a modification of their program designed for toddlers and very young children. Perhaps the most impressive aspect of the appearance of this book is its timing. It follows the publication of the authors' paper in *Pediatrics* (Rogers et al. 2010), which describes a randomized controlled trial comparing the ESDM to standard community treatment. The study finds significant advantage for ESDM in terms of adaptive outcomes and reduction in autistic severity after 2 years of treatment. Unlike so many other treatment programs for ASD, for which authors attempt to disseminate intervention approaches BEFORE collecting data on their efficacy, Rogers and Dawson have taken the opposite course. By conducting a carefully designed study before publishing their program, they have established an empirical basis for it that provides a high level of added value. Parents and educators who use the program have not just its authors' endorsement, but a scientific basis for its validity.

The book is written in an engaging and accessible way. One of its best features is its excellent first chapter, which explains in lay terms what is known about brain development and ASD. In clear, succinct, and readable language,

the authors summarize a broad swath of research on brain development, discuss the brain areas thought to be most affected in ASD, and highlight the role that early intervention can play in brain development and its behavioral outcomes. This chapter alone is worth the price of the volume.

The next chapter lays out the characteristics of ESDM, which include intensive, one-to-one instruction with a trained "generalist" intervention provider, usually in a home setting. An overview of the curriculum and basic teaching procedures is provided. Comparisons to other programs in the literature are made and the evidence for its efficacy is discussed. Chapter 3 sets out some basic implementation principles, including delivery settings, agents, and procedures, as well as the role played by families. Some discussion of the transition from ESDM to other community-based services is included.

Chapters 4, 5, and 6 present detail on the program's learning objectives, daily teaching plans, and contexts for instructional activities. These chapters include case examples, as well as data tracking forms for individual toddlers, guidelines on selecting objectives, and methods for assessing behavioral change and dealing with children who do not show adequate progress. Chapters 7, 8, and 9 discuss each of the major domains of learning objectives for the program: imitation, play, communication, and language. Within each chapter, information on typical development and methods for embedding the targeted skills in naturalistic teaching "frames" that focus on joint attention are provided. A carefully sequenced set of steps involved in moving from lower to higher levels of behavior within each domain is discussed, again with case examples. Chapter 10 gives a brief discussion of how the ESDM might be implemented in group settings. There are also very useful Appendices containing forms and checklists.

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Apart from its solid base in evidence, accessible writing style, and comprehensive overview of early intervention goals and methods, this book has several additional strengths. It is clearly targeted to practitioners, parents, and program administrators with the goal of expanding the impact of this well-designed program. Those who work in early intervention, and parents of young children with ASD, could derive great benefit from the study of its content in helping to organize thinking about the skills that should be addressed in early intervention, the sequence of objectives to be targeted, the methods that can be used to address each goal, and the process of monitoring progress and adjusting goals and activities to individual needs. Anyone who works with young children with ASD, regardless of level of experience, would find much to learn and apply to daily practice in this book.

The question that arises, however, is the degree to which the program presented in this volume is “scalable.” That is, could a community agency, without the support of the highly trained supervisory staff and consultation resources available in an academic setting, independently implement this program on a large scale, with adequate fidelity? One key to the success of ESDM would appear to be the depth of knowledge and experience available to its intervention staff, through ongoing supervision and collaboration with active scholars, to think through the individualization of the program to meet the needs of a wide range of toddlers with symptoms of ASD. This is, in the end, an empirical question; one that merits testing by concerted attempts to implement ESDM in large-scale community settings.

Apart from this big question, one could find a few elements with which to quibble in this excellent volume. There is sometimes a paucity of credit given to the part played by other naturalistic behavioral interventionists who contributed to the development of many of the approaches used here. In their Background section, the authors credit Schreibman and Kogel with the creation of Pivotal Response Training, but do not mention any of the other contributors to the growth of naturalistic behavioral programs at about the same time, such as Mand-Modeling (Rogers-Warren and Warren 1980), Incidental Teaching (Hart and Risley 1975), Prelinguistic Milieu Teaching (Warren and Yoder 1998), and Social Modeling (Leonard 1975) to name just a few. In addition, many of the teaching practices claimed to be developed by the Denver model, such as use of positive affect, multiple communicative opportunities, and the use of a “one-up” rule (or “upping the ante” as Bruner [1975] called it), have roots in older developmental interventionist traditions. Facilitated Play (Seitz and Marcus 1976), Transactional Intervention (McLean and Snyder-McLean 1978), and Environmental Arrangement (Constable 1983) serve as just a few

examples. This is not meant to diminish the innovation involved in carefully integrating these approaches into a unified program, but only to remark that the Denver model did not spring full-blown from the heads of its creators, but represented their thoughtful participation in an emerging *zeitgeist* about intervention for young children with disabilities.

A speech-language pathologist might also quibble with their relegation of the role of speech-language pathology to dealing solely with problems of speech, rather than being integrated into the development of intervention to increase preverbal communication and first words. We might also question the authors’ decision to recommend PROMPT, an intervention that makes use of tactile cues for motor behaviors which has very limited empirical support outside the field of ASD, as the only treatment to be used for children who do not spontaneously progress to spoken language with ESDM, since the authors’ own research on this program (Rogers et al. 2006) shows no significant advantage for it. Nevertheless, the authors’ strong focus on the development of spoken language—through reciprocal vocal imitation and play, interpreting vocal productions “as if” they were meaningful, and encouraging the development of first words not only for object labels and simple requests but in such a way that they can be combined to form multiword utterances—is an orientation any language development specialist would endorse.

In sum, this book adds greatly to the growing literature on evidence-based naturalistic behavioral treatments for children with ASD. Its attention to the needs of children under three, now frequently diagnosed with the syndrome, as well as its comprehensive scope and reader-friendly style should guarantee it a well-deserved place on the bookshelves of all who are engaged in the difficult task of optimizing the developmental trajectory of young children with this syndrome.

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