The TEACCH Autism Program

Lee M. Marcus, Ph.D.
Clinical Professor
TEACCH Autism Program
University of North Carolina

Abstract

The history, philosophy, program structure and components, research and dissemination of the TEACCH Autism Program (formerly known as Treatment and Education of Autistic and related Communication-handicapped CHildren) are described. TEACCH is the North Carolina statewide program mandated in 1972 to provide services for individuals, their families, and professionals in the community. The program is administered in the University of North Carolina School of Medicine, as a University-based program, and carries out research and teaching and training activities. TEACCH provides a wide range of diagnostic, treatment, training and consultation programs serving the entire age and ability spectrum. The mission of TEACCH is to create and cultivate the development of exemplary community-based services, training programs and research to enhance the quality of life for individuals with autism spectrum disorder and for their families across the lifespan. It values the culture of autism and builds its services on individualized assessment, structured teaching, close partnerships with parents, community involvement, and evidence-based practices. As TEACCH looks to the future, its plans are to continue to be a leader in the development of programs and services by integrating what is new and empirically sound while maintaining the adherence to its core philosophy, values and methodologies.

Introduction

For more than forty years, the TEACCH Autism Program (formerly known as Treatment and Education of Autistic and related Communication-handicapped CHildren) has provided comprehensive service, consultation and training, and research in the field of autism. With its origins during the period of parent-blaming and psychodynamic treatment through to the current emphasis on neurobiological etiologies and internet-based, social media exchange of tested and untested ideas, TEACCH has continued to support individuals, their families and the professionals who serve them, sustained by its values and evidenced-based approaches (1,2). In this article, the history, philosophy, program structure and components, research and dissemination of the TEACCH Autism Program will be described. As the field of autism has dramatically changed over the past five decades, TEACCH has adjusted and kept pace, while maintaining its adherence to its core principles and practices. The final section will touch upon some future directions of the program.

Brief History

The story of TEACCH is partly the serendipitous pairing of a young psychologist, Eric Schopler, and a young psychiatrist, Robert Reichler, who met at the University of North Carolina. They quickly realized they had common values and innovative thinking. Both were mavericks in their fields and were at ease swimming against the tide, in this case the stranglehold on autism by mental health professionals who held parents responsible for the problems of their children with autism. Although Schopler and Reichler did not know exactly what caused autism, they knew it was not parental psychopathology and that it had to be neurobiologically-based. They pioneered the concept that parents could be brought directly into the treatment process as co-therapists (3), recognizing that they were more the victims than the cause of their child's condition, demonstrating that they understood their child's problems as well as the professionals did, and that they could effectively teach and advocate. Schopler and Reichler's initial positive experience with a treatment case led to a NIMH-funded project which ultimately resulted in the establishment of the statewide North Carolina autism program called TEACCH, created by the legislature and administered within the University of North Carolina

School of Medicine in 1972. The importance of the role of parents and the partnership needed with professionals has been a cornerstone of the program (4).

Philosophy and Principles

As described in its recent mission statement, the TEACCH Autism Program "creates and cultivates the development of exemplary community-based services, training programs, and research to enhance the quality of life for individuals with Autism Spectrum Disorder and for their families across the lifespan". Among its core principles is the respect for and understanding of the individual, based on the concept of the "culture of autism", embodied in the following learning features (5,6).

1. Markedly scattered cognitive skills, with relative strength in visual understanding and relative weakness in auditory processing.
2. Focus on details rather than on the underlying, integrated meaning of the details.
3. Distractibility or other atypical patterns of focusing and disengaging attention.
4. Limited ability to understand the perspectives and experiences of other people.
5. Difficulties with generating organizational strategies.
6. Difficulties with time concepts and sequencing in time.
7. Difficulties with generalizing from one situation to another.
8. Strong interests and impulses.
9. Sensory and perceptual differences.

These characteristics are grounded in empirical research (e.g. 7,8) and serve as the foundation for the Structured TEACCHing model (see below).

In addition to the understanding of the culture of autism, TEACCH adheres to the following core values (www.teacch.com).

"**TEACHING**. We share our knowledge of Autism Spectrum Disorder and increase the skill level of others through innovative education, teaching, and demonstration models.
EXPANDING. We are committed to expanding our own knowledge and that of others to ensure that we offer the highest quality, evidence-based services for individuals with Autism Spectrum Disorder and for their families across the lifespan.
APPRECIATING. We understand and appreciate the unique strengths of people with Autism Spectrum Disorder and their families.
COLLABORATING AND COOPERATING. We embody a spirit of collaboration and cooperation in our interactions with colleagues, individuals with Autism Spectrum Disorder and their families, and members of the larger community.
HOLISTIC. We stress the importance of looking at the whole person, their families and their communities throughout the lifespan."

Program Structure and Components

TEACCH provides a comprehensive set of services to individuals with autism and their families across the entire age and ability spectrum. These services are based in seven regional centers across the state of North Carolina, allowing families relatively easy access. Although there are some variations across centers, the core services include diagnosis and assessment, individual and group interventions, and support groups. Over the years, the role of TEACCH has shifted because of the vast increase in the number of referrals (at least fifteenfold over the past 4 decades), so it is impossible to meet every need equally. Diagnostic evaluations now focus on those cases that are difficult to diagnose (e.g., complex, co-morbid cases). Intervention sessions are time limited, often using a group format, partly to serve more families, although the program provides opportunities to stay connected with TEACCH through support groups or services as their child grows older. Families can also participate in workshops and conferences organized by TEACCH. The intervention programs, based in part on the Structured TEACCHing model, also incorporate a variety of strategies built on an understanding of developmental psychology principles and consistent with other established methods such as PECS (the picture

exchange communication system) (9), functional behavioral assessment, social skills training, social narratives (10), and Pivotal Response Training (11). A recent example of an active partnership is Face Your Fears, a group model for dealing with anxiety in children with ASD (12). TEACCH staff have incorporated visual supports to enhance the effectiveness of this basic program.

TEACCH Centers also provide consultative support to programs and professionals serving individuals with ASD. Since the early 1970s when TEACCH was established, there has been a longstanding relationship with the public schools in North Carolina. Along with the state public school system, some of the first classrooms were formed pre-dating the national law mandating public education for all exceptionalities. In these early classrooms, TEACCH anticipated many of the requirements of the national law such as individualized instructional planning, education in least restricted environments and family involvement. Although the amount of consultation has decreased for various reasons, TEACCH remains a fixture as a consultant for the public schools. Along with consultation, TEACCH has developed an elaborate and extensive training program for professionals across the United States and around the world (13). For example, every summer, several hundred professionals come to sites across North Carolina for a week of intensive training on Structured TEACCHing in the context of a demonstration classroom. TEACCH faculty and staff have conducted training across the world and have built longstanding partnerships with programs in nearly every continent. TEACCH, through its psychology internship in the Department of Psychiatry at UNC, and postdoctoral fellowship, has provided center-based training for young psychologists, many of whom have become leaders in the field.

Finally, TEACCH, in its efforts both to develop quality services and to model demonstration programs, has Supported Employment, farm-based residential-vocational, and early-intervention programs, which provide direct services to individuals with autism and their families, are available for observation, and offer training on the models.

Structured TEACCHing Model

As noted earlier, a major component of the TEACCH approach is the application of structured teaching principles and practices (14,5). TEACCH was one of the first programs to research the importance of structure (15) and has developed a model that has widespread applicability across ages, levels of functioning, and settings. Briefly stated, Structured TEACCHing is based on our understanding of the unique learning features of autism, noted above, and individualized to the person, starting with a careful assessment. Specific components are physical or environmental structure, individualized schedule, the work system (or activity list), and visual or materials structure. These four components interact with one another and, along with a meaningful and comprehensive curriculum, enable the person with autism to become independent, reduce anxiety due to uncertainty and unpredictability in their world, help with behavior management issues, increase flexibility, and learn effectively.

Research and Dissemination

Research has been an integral part of the TEACCH program from the early years of the NIMH funded project to today. The early research provided empirical support for the major principles underlying the TEACCH philosophy and approach, including evidence for the effectiveness of using structure (15,2), how parents could be effective teachers for their child (3), and helping to disprove the prevailing view at that time that parents were causing the child's autism (16). In this era with emphasis on evidence-based practice, a strong body of research, some of which has been conducted by TEACCH and summarized by Mesibov and Shea (2), many of the components of the TEACCH program have been demonstrated to be effective (see report from the National Professional Development Center on best practices in ASD at http://autismpdc.fpg.unc.edu/content/briefs). Research on two of the diagnostic and assessment instruments developed at TEACCH, dating back to the early research project, the Childhood Autism Rating Scale (17,18) and the Psychoeducational Profile (19) has supported their reliability and validity (20,21). Dissemination of the program's methods has been vast and far reaching. Along with the training program described earlier, over the years TEACCH faculty have been invited to present at conferences around the world, many visitors have come to North Carolina to observe

and learn about the various programs, and TEACCH faculty and staff have served in leadership roles in North Carolina, the United States and internationally.

Future Directions

As the field of autism changes with the ongoing increase in diagnosis and awareness of the professional and general public, TEACCH has been engaged in a self-evaluation and strategic planning process. Included among the short-term and long-term goals for the program are the following.

• To maintain excellence in providing clinical services using current methodologies.
• To address and meet the growing needs of the underserved adult ASD population by expanding service and research efforts.
• By expanding clinical and research programs, to meet the early detection and intervention needs of infants and toddlers with ASD.
• To continue to provide exemplary training programs for students and current professionals to ensure a well-qualified autism workforce to meet the increasing numbers of individuals with ASD across the lifespan.

The expectation is for TEACCH to continue to be a leader in the development of programs and services by integrating what is new and empirically sound, while maintaining the adherence to its core philosophy, values and methodologies.

GP comment.

What have I learned from this paper?

The term TEACCH was derived from "Treatment and Education of Autistic and related Communication-handicapped CHildren". This programme was inspired by two young workers in the University of North Carolina, a psychologist and a psychiatrist, described in the paper as "mavericks in their fields - at ease swimming against the tide, in this case the stranglehold on autism by mental health professionals who held parents responsible for the problems of their children with autism". I found this to be a remarkable statement. That two people can, by their insight and inspiration, effectively change attitudes to autism from something that blames parents to something that enables helpful intervention, is both extraordinary and inspiring. The paper also gave considerable insight into the unusual "learning features" of autism. This list of nine features should help teachers, carers and other professionals in their management of children with autism, an area not often well covered in general practice education. The paper stated that the environmental structure of the learning environment was an important part of the project's work. It would be interesting to know what structural features are important and how they aid the learning process.

Dr Tom Inskip
General Medical Practitioner
Bedford.

References

1. Kroupa S. The TEACCH approach to working with individuals on the autism spectrum: understanding, educating, empowering. In Neurobiology, Diagnosis and Treatment in Autism, Edited by Riva D, Bulgheroni S, Zappella M. Montrouge, Fr: John Libbey Eurotext; 2013, pp. 107–120.
2. Mesibov GB, Shea V. The TEACCH program in the era of evidence-based practice. J Aut Dev Dis 2009; 40: 570-579.
3. Schopler E, Reichler RJ. Parents as cotherapists in the treatment of psychotic children. J Autism Child Schizophr 1971; I:87-I02.

4. Marcus LM, Kunce LJ, Schopler E. Working with families, In Handbook of Autism and Pervasive Developmental Disorders, Third Edition. Edited by Cohen DJ, Volkmar FR. Hoboken, NJ: John Wiley; 2005, pp 1055-1086.
5. Mesibov GB, Shea V, Schopler E. The TEACCH approach to Autism Spectrum Disorders. New York: Kluwer Academic/Plenum; 2005.
6. Shea V. Treatment and Education of Autistic and Related Communication-Handicapped Children. In Encyclopedia of Autism Spectrum Disorders (Online Version), Edited by Volkmar F. New York: Springer; 2013.
7. Boyd BA, Conroy MA, Mancil GR, Nakao T, Alter PJ. Effects of circumscribed interests on the social behaviors of children with autism spectrum disorders. J Aut Dev Dis 2007; 37:1550–1561.
8. Caron MJ, Mottron L, Rainville C, Chouinard S. Do high functioning persons with autism present superior spatial abilities? Neuropsych 2004; 42: 467–481.
9. Frost LA, Bondy AS. The Picture Exchange Communication System Training Manual. Cherry Hill, NJ: Pyramid Educational Consultants; 1994.
10. Gray C. Social stories and comic strip conversations with students with Asperger syndrome and high functioning autism, In Asperger Syndrome or High Functioning Autism? Edited by Schopler E, Mesibov G, Kunce L. New York: Plenum; 1998, pp 167-198.
11. Koegel LK, Koegel RL, Harrower JK, Carter CM. Pivotal response intervention I: Overview of approach. Res Pract for Persons with Sev Dis 1999; 3: 174-185.
12. Reaven J, Blakeley-Smith A, Nichols, S, & Hepburn, S. Facing Your Fears: Group Therapy for Managing Anxiety in Children with High-Functioning Autism Spectrum Disorders. Baltimore: Paul Brookes; 2011.
13. Grandstaff J, Marcus LM. Multidisciplinary training (TEACCH model). In Encyclopedia of Autism Spectrum Disorders (Online Version), Edited by Volkmar F. New York: Springer; 2013.
14. Schopler E, Mesibov GB, Hearsey K. Structured teaching in the TEACCH system. In Learning and Cognition in Autism. Edited by Schopler E, Mesibov GB. New York: Plenum Press; 1995, pp 243-268.
15. Schopler E, Brehm S, Kinsbourne M, Reichler RJ. Effect of treatment structure on development in autistic children. Arch Gen Psych 1971; 24:4l5-42l.
16. Schopler E. Parents of psychotic children as scapegoats. J. Contemp Psych 1971; 4:l7-22.
17. Schopler E, Reichler RJ, DeVellis RF, Daly K. Toward objective classification of childhood autism: Childhood autism rating scale (CARS). J Aut Dev Dis 1980; 10: 91-103.
18. Schopler, E, Van Bourgondien ME, Wellman GJ, Love, SR. Childhood Autism Rating Scale—2nd Edition. Los Angeles: Western Psychological Services; 2010.
19. Schopler E, Lansing MD, Reichler RJ, Marcus LM. Psychoeducational Profile – Third Edition (PEP-3). Austin, TX: Pro-Ed; 2005.
20. Ozonoff S, Boodlin-Jones B, Solomon M. (2005). Evidence-based assessment of Autism Spectrum Disorder in children and adolescents. J Clin Child Adol Psych 2005; 34: 523-540
21. Villa S, Micheli E, Villa L, Pastore V, Crippa A, Molteni M. Further empirical data on the psychoeducational profile-revised (PEP-R): Reliability and validation with the Vineland Adaptive Behavior Scales. J Aut Dev Dis 2010; 40: 334-341.