

Eva Baharav, Ph.D., CCC-SLP

Application for a Summer Research Grant, 2015: Individualized Parent Training in Early Autism via telehealth services

Research Proposal Narrative

This application for a summer research grant titled *Individualized Parent Training in Early Autism via telehealth services* aims to design an individualized parent training program in early autism, based on the Hanen method More Than Words to be delivered via telepractice and examined for effectiveness through a treatment adherence protocol developed especially for this purpose.

Background information for this proposal is given below, along with the methods, staffing and timeline of the study. It is followed by an explanation on the opportunity this project will lend to advancing my professional scholarship, its impact on the discipline, on the students, and on our community.

Background

When children show early signs of autism (ASD), it is their parents who are best positioned to treat them since they spend the most time with their child. Parent-mediated intervention in autism has a large following because of its system efficacy: Within a short period of time, parents are trained in intervention methods which they can apply for an indefinite length of time. More Than Words – The Hanen Program for Parents of Children with Autism Spectrum Disorder - is a manualized parent-implemented intervention (Sussman, Honeyman, & Lowry, 2007). This program trains parents of preschool children with ASD how to interact with their children to effect increased intentional communication. The program teaches strategies to promote the child's development of both joint attention and pragmatic language. Parents are taught to follow their child's lead by involving themselves in the child's interest, arranging the child's environment, implementing predictable routines in the child's schedule and communication, as well as modeling language at the child's level (Girolametto, Sussman, & Weitzman, 2007).

This program has been offered at Western's Department of Communication Sciences and Disorders since the summer of 2009 through an innovative graduate course where students and parents of their clinical clients participate together. The program's implementation is subsequently followed up through a state-of-the-art telepractice service, where parent coaching is conducted from Western's site at the parents' home as they interact with their child. This service modality is particularly relevant in our county- Whatcom County- where some families are geographically remotely located and where access to services is limited for a variety of reasons. The efficacy of using telepractice in parent training has been demonstrated in several studies (Baharav & Reiser, 2010; Koback et al, 2011; Vismara, Young & Rogers, 2012).

The Problem

Recently, several review studies comparing various parent-mediated therapy programs for ASD have disclosed inconsistencies in the way parent-mediated programs are administered. What is missing from most of these studies is "treatment adherence", or "fidelity of implementation" – a measure that assesses how well parents follow the treatment plan. From 33 studies reviewed by McConachie et al. (2014), only two used such a measure, and none correlated program success with performance on the adherence measure.

The Study

The aim of the summer research study is threefold: (a) to develop a treatment adherence measure that assesses how well parents implement strategies they learn through the More Than Words® program, (b) to develop a series of individualized home implementation plans for parents of children with ASD who will be taking the summer parent training workshop in the summer of 2015, to be delivered via telepractice once a week, (c) to carry out reliability studies of scoring

Eva Baharav, Ph.D., CCC-SLP

Application for a Summer Research Grant, 2015: Individualized Parent Training in Early Autism via telehealth services

Research Proposal Narrative

parents' performance, and (d) to conduct correlational analyses examining how treatment outcome measures co-vary with adherence scores.

Parts (a) and (b) of this study will be carried out during the summer quarter in conjunction with the graduate course on autism that incorporates the parent training program.

Parts (c) and (d) will be carried out throughout the academic year 2015-16, when treatment of the children of the subject families will be followed up at Western's Speech-Language Clinic once a week, in conjunction with the administration of the home program conducted through telepractice.

This study will provide two graduate students with two research studies and will lead to collaborative effort to engage in clinical research that will inform future studies of parent-mediated programs in autism.

Methods

Measures of the subjects' children's progress in communication skills and language acquisition will be taken during three points in time over the academic year: In the fall, in the winter and in the spring. Data sources will include video analysis of parents' treatment adherence based on the telepractice sessions; video analysis of child's behaviors taken through on-site clinical sessions, and the administration of two formal instruments: the MacArthur-Bates Communicative Development Inventories (CDI) Words and Gestures (Fenson et al., 1993) and the Communication Matrix (Rowland, 2004; Rowland, 2011).

Expected Outcomes and Evaluation Criteria

This study is based on ongoing research that I have been conducting since 2009, when the innovative use of Telepractice in parent training was first initiated. It will expand our ability to monitor parents' and children's amelioration of skills, helping children with autism become substantially more functional in their home and academic life. It will provide our graduate students with tools to conduct independent research and will hone students' skills in coaching parents of children with ASD as they enter the professional field of speech-language pathology. In addition, it will strengthen Western's reputation for excellent services to families in the community impacted by the devastating disorder of autism, and it will strengthen the evidence-base of research in the area of parent-implemented treatment in autism.

References

- Baharav, E., & Reiser, C. (2010). Using telepractice in parent training in early autism. *Journal of Telemedicine and E-Health, 16* (6), 727-31. doi:10.1089/tmj.2010.0029.
- Fenson, L., Dale, P. S., Reznick, J. S., Thal, D., Bates, E., Hartung, J. P. (1993). *The MacArthur-Bates Communicative Development Inventories: User's guide and technical manual*. Baltimore Brookes.
- Girolametto, L., Sussman, F., & Weitzman, E. (2007). Using case study methods to investigate the effects of interactive intervention for children with autism spectrum disorders. *Journal of communication disorders, 40*(6), 470-92. doi:10.1016/j.jcomdis.2006.11.001
- Koback, K. A., Stone, W. L., Wallace, E., Warren, Z., Swanson, A., & Robson, K. (2011). A web-based tutorial for parents of young children with autism: Results from a pilot study. *Telemedicine Journal and E-Health, 17*(10), 804-808. doi:10.1089/tmj.2011.0060
- McConachie, H., Fletcher-Watson, S. and Working Group 4, COST Action 'Enhancing the Scientific Study of Early Autism' (2014). Building capacity for rigorous controlled trials in

Eva Baharav, Ph.D., CCC-SLP

Application for a Summer Research Grant, 2015: Individualized Parent Training in
Early Autism via telehealth services

Research Proposal Narrative

autism: the importance of measuring treatment adherence. *Child care health dev.* Doi:
10.1111/cch.12185.

Rowland C. (2011). *Communication Matrix Online*. Portland: Oregon Health & Science
University, Design to Learn Projects.

Sussman, F., Honeyman, S., & Lowry, L. (2007). *Making Hanen happen: Leaders guide for More
Than Words—The Hanen Program for Parents of Children with Autism Spectrum
Disorder*. Toronto, Canada: The Hanen Centre.

Vismara, L.A., Young, G.S. & Rogers, S.J. (2012). Telehealth for expanding the reach of early
autism training to parents. *Autism Research and Treatment*. Volume 2012, Article ID
121878, 12 pages. doi:10.1155/2012/121878