Helping Answer Needs by Developing Specialists in Autism: Year Two Training Outcomes

Naomi Swezy, Melissa Maynard, Patricia Korzekwa, Stacie Pozdol, Kara Hume, Megan Grothe, & Gary Miller

HANDS in Autism Team, Indiana University School of Medicine

Abstract

The mission of HANDS in Autism (Helping Answer Needs by Developing Specialists in Autism) is to provide practical and applicable information to a variety of caregivers from an ABA-based framework and to provide an option for training that promotes practical learning opportunities through an intensive and intensive hands-on and coaching experience. The primary goals and objectives of the model are to provide:

- a focus on individual strengths of each student
- a focus on comprehensive training (i.e., assessment to goal development)
- hands on learning with children of various levels of functioning and challenge
- training in a model of didactics combined with modeling, practice, and feedback in a supportive coaching environment
- training to multiple caregivers working hands on with individuals with autism in various environments
- provision of training based on a “best practices” approach to assessment and intervention
- development of curriculum and comprehensive planning based on data driven decision making.

On the first day of training, participants were asked to complete two measures: one assessing general knowledge of autism spectrum disorders, and the other an open-ended vignette designed to assess the appropriate application of skills used with children on the spectrum. These measures were repeated again at the conclusion of the final training day. Results regarding change in quantity and quality of skills and knowledge obtained through training are presented. The goal was to use these measures to assess the efficacy and effectiveness of the HANDS in Autism Training Program.

Introduction

The HANDS in Autism model of training was developed in 2004, as a result of project funding from the CDC. Through this clinical experience, it was noted that caregivers coming from traditional educational conferences with excitement to implement what they had learned were not appropriately equipped to apply the knowledge they had gained. They became quickly discouraged with the methodologies and processes as they struggled to effectively apply and individualize the principles in their naturalistic setting. It was hypothesized that caregivers would benefit most from a more active learning process that would allow them to better comprehend, envision the application, and generalize information. The framework and beginnings of this intensive training model were developed over the past 1 ½ years, with primary consideration provided to the HANDS lead trainers and staff. Current projects are underway to determine the factor structure of this 20-item measure as well as to obtain the robustness of the scale. For this project, it does not cover all material covered in the curriculum nor does the curriculum cover all the aspects included in the measure.

Hypotheses

The training program would demonstrate efficacy and effectiveness by the increased knowledge and understanding demonstrated by participants across both measures. Specifically, participants would obtain better scores at the follow-up assessment compared to their scores obtained at baseline.

Methods and Participants

Twenty-eight educator/professional participants attended eight hours of training per day for a five-day period in one of three training sessions. Ratings were obtained prior to the start and at the conclusion of the training week.

Table 1. Mean scores and mean discrepancies from the model response (N=28).

<table>
<thead>
<tr>
<th>Question</th>
<th>Pre</th>
<th>Post</th>
<th>Discrepancy Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism is an educational disorder</td>
<td>4.97</td>
<td>4.64</td>
<td>0.33</td>
</tr>
<tr>
<td>Early intervention can lead to significant gains in children's social and communication skills</td>
<td>3.03</td>
<td>2.41</td>
<td>0.62</td>
</tr>
<tr>
<td>All children with autism display poor eye contact.</td>
<td>3.63</td>
<td>3.15</td>
<td>0.48</td>
</tr>
<tr>
<td>Problems with social relations that are present in autism are different from social problems seen in other psychiatric conditions.</td>
<td>4.04</td>
<td>4.15</td>
<td>0.11</td>
</tr>
</tbody>
</table>


Participants did show significant improvements overall and across several areas in both the knowledge and application assessments during a one-week training program. More specifically, there appeared to be a great increase in the ability to apply the knowledge across settings, and promote social skills. Despite problems with both measures, these results are encouraging and speak to the effectiveness of this training program in being able to enact immediate change in its participants.

Conclusions & Future Directions

Overall, these data appear to be evidence of efficacy and effectiveness of this training program on being able to enact change in the short-term. Long-term follow-up is planned for future trainings to assess retention of knowledge and skills. Part of the growing nature of this program is to develop an appropriate assessment of intervention and skills. Based on data obtained at each training session, the pre-post vignette measure is continuously revised and reformatted to better achieve its goal. There are several limitations to this measure. First, participants often noted that the measure was long and somewhat redundant. This may have led some participants to rush through answers. Additionally, because of the open-ended nature of the responses, this measure is very difficult and time-consuming to score. To this end, we have revised the measure yet again as a more objective multiple-choice test that can be used to assess training effectiveness. This measure will be used in subsequent trainings.