Helping Answer Needs by Developing Specialists (HANDS) in Autism: Year Four Training Evaluation and Fidelity

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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 innovative and intensive hands-on and coaching experience. Participants in the second year training program provided daily feedback on several aspects of the training, including rating the thoroughness of information presented, the materials provided, and the hands-on experiences. In addition, both training staff and participants were rated on their fidelity to the training curriculum. During the five days of training topics regarding program design, assessment, environmental control, behavior intervention, and skills teaching were presented. Results pertaining to the participants’ satisfaction with the training and the fidelity of both the participants and training staff are presented. Conclusions regarding implications, future research, and limitations will be discussed.

Methods and Participants

Thirty-one (N = 31) professionals who work with children across the autism spectrum attended and completed training sessions conducted during the summer of 2008: 12 in session I, 17 in session II, and 2 in session III. Across all sessions, 17 special educators, 6 instructional assistants/para-professionals, 4 therapists (speech or occupational), 2 administrators, and 2 general educators attended.

At the end of each training day for a five-day period of each of three training sessions, participants were asked to complete an evaluation of the material covered that day and their overall experience for that day. In addition, two lead HANDS trainers assessed both participant and staff fidelity to the training program curriculum on each specific day.

The following areas were included in the curriculum of every training session:

- Day 1: Diagnosis & Best Practices – Diagnostic criteria for autism spectrum disorders, data-driven and ABA-based practices, and HANDS Philosophy and Model introduction
- Day 2: Structure & Choreography – Visual and physical structure, role distribution and collaboration with classroom staff and other entities in the educational system
- Day 3: Assessment and Behavior Intervention – Informal, curriculum-based, and standardized assessment, data collection and analysis, development of IEP and IEP goals and objectives, feedback/coaching
- Day 4: Teaching – 1:1 teaching, independent work systems, development and adaptation of teaching materials
- Day 5: Social Skills – Social development, assessment of individual strengths and needs, and developing and implementing social skills goals

Background

Since 2004, the HANDS (Helping Answer Needs by Developing Specialists) in Autism training model has been driven to meet the growing need of professionals working with children on the spectrum to deepen knowledge of ABA principles and best practices and to provide their application in school settings. The HANDS Model curriculum allows participants to learn in an active environment through didactic, intensive hands-on practice, coaching, and feedback sessions with further utilization of these principles in real-life situations in the structured HANDS classroom with student participants of different ages and developmental profiles.

To verify that the HANDS training model can effectively meet the needs of the trainees, the ability of the training staff to follow the guidelines outlined in the curriculum, the effectiveness of demonstration of specific strategies taught during the training, and the participant satisfaction with the training were measured. These measures help us understand that the HANDS in Autism model is practical and appreciated by training participants, what enables us to argue for the use of this model in other settings.

Hypotheses

Participants and training staff will be able to demonstrate high fidelity to the training program. Specifically, participants will adhere to the strategies being taught and staff will adhere to the training curriculum.

Both high satisfaction and high fidelity will suggest that this model is both practical and well-received by participants.

Measures & Coding Procedures

Program Evaluation Data

Participants were asked to rate their daily satisfaction with different components of the training and for the overall training on a five-point scale (1 = Not at all satisfied; 5 = Very much satisfied). Factors evaluated for each training day include:

- Outlining goals and objectives
- Hands-on practice activities
- Observing HANDS Staff

Program Fidelity Data

Training Participants. For the duration of the training, participants were divided into three teams of three to five participants for breakout sessions, hands-on activities, brainstorming activities, etc. The HANDS lead trainers rated each team on their fidelity to the program curriculum based on a 5-point scale (0 = Not true; 5 = All true). Factors evaluated for each team included:

- Individual teaching task for child
- Using data to inform task
- Adherence to goals and objectives
- Adherence to daily roles
- Generalization of previous days skills
- Correct prompting used
- Practice in the daily tasks
- Use of behavior strategies

HANDS Staff. Each day, the HANDS lead trainers assessed the staff's fidelity to the training program. The staff as a whole was rated on a 5-point scale (0 = Not Completed; 5 = Completed). Factors evaluated for each training day include:

- Use of daily morning meeting
- Partaking of didactic activities
- Review of schedules/assignments
- Use of multi-media
- Presenting full lessons
- Adherence to training schedule

Rating scores for both participants and staff were then summed across items and divided by the total number of points possible to get a per cent fidelity score, and further averaged between the two raters.

Conclusions & Future Directions

Overall, it appears that participants were highly satisfied with the training program and both participants and staff were able to maintain high levels of fidelity to the training curriculum. Using these results, the HANDS training program was revised again to incorporate more activities and less lecture-based instruction - and more reinforcement of primary principles. As an example of such revision, general didactic information and training (e.g., Diagnoses and Best Practices) will be offered in the form of a web-based application as a pre-requisite prior to an actual summer session in subsequent years. Another anecdotal point is that the participant fidelity increased throughout the duration of the training session, what can serve as an additional support that participants may have considered the training as useful and applicable to their settings, and that they were able to maintain high fidelity throughout the training curriculum.

Results

Across all five days of the training of each of three training sessions, participants reported being greatly satisfied (M = 4.73, SD = .08). While not statistically significant (p > .05), participants generally rated Assessment and Behavior Intervention day lower compared to other days. This day involves intense didactic material and hands-on work with the students. In addition, these are areas of distinct expectation of classroom staff, while little explicit instruction is often provided. As such, this is not a comfort zone for many.

Across all three sessions and all five days of training, both participants (M = 93.79%, SD = 2.64) and training staff (M = 97.07%, SD = 2.45) were able to maintain high rates of fidelity to the training curriculum. Though not statistically significant, it is important to note anecdotally that staff fidelity was lower on the first day of sessions 1 and 2. The former may be explained by the fact that the training flow underwent significant changes from the previous year, what may account for the difference in approach and rating, and the latter, by the fact that more changes were introduced between the first and second sessions to accommodate the needs outlined in evaluation forms by participants.

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