What Happens after the Workshop? Factors Associated with Sustained Use of an Evidence-Based Intervention for Children with ASD in Community Practice

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Abstract

This study examined factors associated with the sustained use of an evidence-based intervention for children with autism spectrum disorder (ASD) by community providers from geographically and ethnically diverse communities across Washington State. Providers attended one-day workshops on Reciprocal Imitation Training (RIT; Ingersoll, 2008) and rated the acceptability and feasibility of RIT and the implementation climate of their workplace immediately post-training and at 3- and 6-month follow-up. At follow-up, providers also reported whether they used RIT with children in their caseload. Provider ratings of RIT acceptability, feasibility, and implementation climate declined between post-training and follow-up but remained positive for RIT users. Ratings declined more steeply for providers not using RIT at follow-up. These results highlight the importance of understanding the environment in which an intervention is delivered. By identifying factors associated with intervention use, we can determine how to best support community providers in the use of evidence-based interventions.

Background

State-implemented early intervention programs are a first line of treatment for many children with, or at risk for ASD, making them an ideal setting for implementing ASD-specialized evidence-based interventions (EBIs) such as Reciprocal Imitation Training (RIT; Ingersoll, 2008). However, sustained use of EBIs requires that the setting supports their delivery (Chambers et al., 2013).

Three factors are associated with provider use of EBIs in community practice: (1) Acceptability, the perception that an intervention is agreeable, palatable, or satisfactory (Proctor et al., 2011); (2) Feasibility, the extent that an intervention can be used successfully within a given setting (Proctor et al., 2011); and (3) Implementation climate, the extent that an intervention is perceived as supported and rewarded in the work setting (Klein & Sorra, 1996). Little is known about how these factors change over time, and how these changes influence providers' use of EBIs.

Furthermore, one-day professional development workshops are the norm in training community-based providers. However, few studies track provider use of interventions after trainings are delivered and even fewer track providers' sustained use of interventions over time.

Study Objectives

The objectives were to examine changes in ratings of RIT **acceptability**, **feasibility**, and workplace **implementation climate** over three time points (post-training, 3-month follow-up, and 6-month follow-up) between providers who were and were not using RIT with children in their caseload

Method

Sample

Figure 1. Workshop Participants

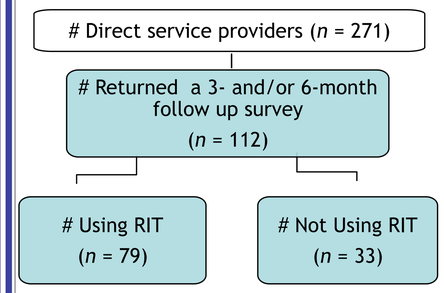


Figure 2. WA State Counties Represented at Trainings

Table 1. Participant Demographics (*n* = 112)

Professional Background	n (%)	Yrs. Experience M (SD)
Early Childhood/Special Educator	35 (31.3)	8.2 (8.5)
Speech-Language Pathologist	34 (30.4)	6.6 (6.5)
Other Provider	18 (16.1)	6.6 (8)
Occupational Therapist	10 (8.9)	9.8 (6.1)
Behavior Therapist/BCBA	8 (7.0)	9.3 (5.8)
Not Reported	7 (6.3)	3.3 (3.3)

Procedure

- Twelve, one-day Reciprocal Imitation Training (RIT; Ingersoll, 2008) workshops were provided in nine counties in WA State. RIT is an evidence-based, 'Naturalistic Developmental Behavioral Intervention' (NDBI; Schreibman et al., 2015).
- RIT trainings consisted of didactic presentations, role plays, live demonstration, and hands-on practice.
- Paper surveys were collected at the end of the training workshop (i.e., post-training) and online surveys were distributed at 3- and 6-month follow-up to assess provider ratings of RIT's acceptability, feasibility, and workplace implementation climate, as well as use of RIT at follow-up.

Measures & Variables

- **Acceptability, Feasibility, & Climate:** Collected at three time points: Post-training, 3-month follow-up, and 6-month follow-up. Survey items were adapted from *Usage Rating Profile – Intervention, Revised* (Briesch et al., 2013). Providers rated their agreement with each item using a 1-4 Likert scale ranging from Strongly Disagree (1) to Strongly Agree (4).

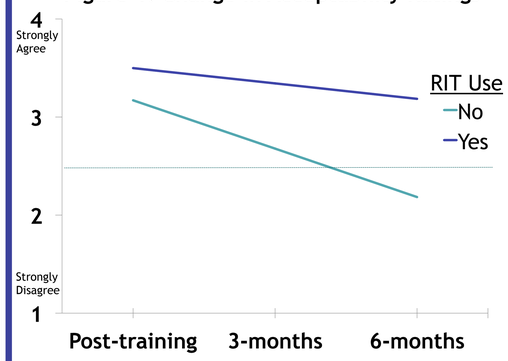
Domain	Sample Item
Acceptability	*"The RIT procedures fit in well with my current practices"*
Feasibility	*"The total time required to use RIT is manageable"*
Climate	*"My supervisor will be/is supportive of my use of RIT"*

- **RIT Use:** Collected at 6-month follow-up; 3-month data (*n* = 52) were used when 6-month data were missing)
  - *"Have you used RIT with any children in your caseload?"* (Yes/No)

Results

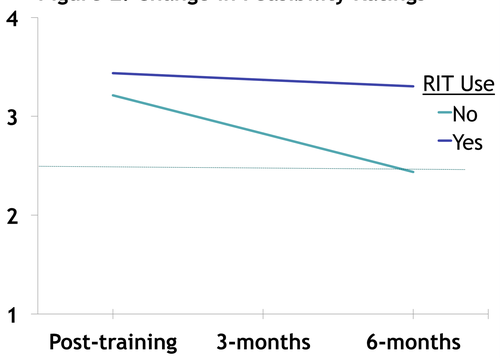
- Hierarchical Linear Modeling (HLM) was used to examine changes in provider ratings of RIT acceptability, feasibility, and workplace implementation climate over time
- Results were similar for all three variables: 1) RIT use at follow-up was a predictor of the intercept; 2) RIT use was a predictor of linear change; 3) Ratings declined for all providers between post-training and follow-up, but declined *more* steeply for providers *not* using RIT at follow-up

Figure 1. Change in Acceptability Ratings



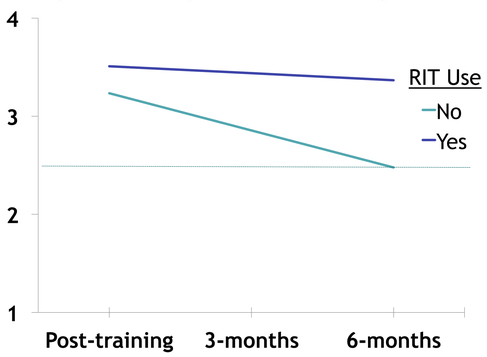
- RIT use at follow-up was a predictor of the intercept for acceptability, B_{01} =. 33, p <. 01
- RIT use was a predictor of linear change for acceptability, B_{11} = .11, p < .01; ratings declined more steeply for non-users, B_{10} = -0.16, p < .01

Figure 2. Change in Feasibility Ratings



- RIT use at follow-up was a predictor of the intercept for feasibility, B_{01} =. 22, p =. 03
- RIT use was a predictor of linear change for feasibility, B_{11} = .11, p < .01; ratings declined more steeply for non-users, B_{10} = -0.13, p < .01

Figure 3. Change in Climate Ratings



- RIT use at follow-up was a predictor of the intercept for climate, B_{01} =. 28, p <. 01
- RIT use was a predictor of linear change for climate, B_{11} = .10, p < .01; ratings declined more steeply for non-users, B_{10} = -0.13, p < .01

Summary and Conclusions

- Immediately after the training, providers who went on to use RIT rated it as more acceptable and feasible and their workplace implementation climate as more supportive than did non-users.
- Provider ratings of RIT acceptability and feasibility and implementation climate declined between post-training and follow-up, but declined *more* steeply for providers *not* using RIT at follow-up.
- Overall, ratings of RIT acceptability, feasibility, and implementation climate remained positive for providers using RIT at follow-up.
- Though providers find RIT to be acceptable and feasible and rate their implementation climate as supportive immediately after the workshop, real world application of the intervention may present challenges that temper these ratings and providers' decision to use RIT.
- Limitations of this study were that we relied on self-reported RIT use, RIT use at follow-up was coded dichotomously (yes/no), and we did not have a measure of RIT fidelity.
- Future research should examine how these factors influence implementation quality (i.e., fidelity).
- Community providers may require additional support within their work settings (e.g., supervisor encouragement, incentives) in order to facilitate their use of EBIs with children in their caseload.

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