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Teaching behavioral therapists to conduct brief preference assessments during therapy sessions

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ABSTRACT

The purpose of this study was to examine group classroom instruction and the need for in vivo feedback when teaching 11 behavioral therapists how to conduct a brief paired-stimulus preference assessment, when to conduct preference assessments, and how to interpret the data during regular therapy sessions. Group classroom instruction, consisting of lecture, video modeling, role-play and feedback with a simulated client, was sufficient for seven participants and in vivo feedback was necessary for four participants. Accurate performance was maintained at a 4 week follow-up for 8 participants. Data show that following skill acquisition there was an increase in the variety of stimuli assessed which presents an opportunity to identify diverse preferences. Additionally, each brief paired-stimulus preference assessment took less than 30 s to complete, suggesting that it is practical for therapists to regularly assess preference during their therapy sessions.

The success of an early intensive behavioral intervention (EIBI) program relies heavily on the behavior of therapists who conduct the majority of the one-to-one sessions. Therapists deliver highly preferred stimuli contingent on appropriate responses to teach new skills and minimize problem behavior, making the identification of preferred stimuli an essential component of effective treatment. As such, therapists must be proficient in the evaluation of preference during therapy sessions.

To date, four studies have examined training procedures to teach individuals to conduct single-stimulus (Pace, Ivancic, Edwards, Iwata, & Page, 1985), paired-stimulus (Fisher et al., 1992), and multiple-stimulus without replacement (MSWO; DeLeon & Iwata, 1996) preference assessments (Lavie & Sturmey, 2002; Lerman, Tetreault, Hovanetz, Strobel, & Garro, 2008; Roscoe & Fisher, 2008; Roscoe, Fisher, Glover, & Volkert, 2006). Researchers have successfully used training packages that include a combination of instructions, modeling, rehearsal, and feedback. Results of research conducted by Roscoe and colleagues (Roscoe & Fisher, 2008; Roscoe et al., 2006) indicate that performance feedback is a critical component of preference assessment training procedures. Roscoe and Fisher demonstrated that written instructions alone produced little change in behavioral technicians' ability to perform paired-stimulus or MSWO preference assessments. However, subsequent role-play and feedback sessions resulted in accurate implementation of both preference assessments.

Data presented by Roscoe et al. (2006) suggest that skills learned through practice and feedback with simulated clients generalize to actual clients; therefore, the use of simulated clients may be sufficient for training. However, when therapists are expected to utilize preference assessments in their everyday practice, it may be more expedient to focus on rehearsal and feedback with actual clients. It is possible that simulated clients may not be able to represent all potential responses displayed by real clients.

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Current research on preference assessment training is restricted to teaching individuals how to conduct comprehensive preference assessments: paired-stimulus, MSWO, and single-stimulus. Such comprehensive assessments are typically administered during preference assessment sessions scheduled intermittently throughout the course of treatment. As a result, the narrow focus of training may be sufficient. However, this research excludes two other components necessary for implementation of preference assessments during EIBI therapy sessions (a) identification of when to conduct preference assessments, and (b) interpretation of the data. While training on these additional components was not required for successful implementation of comprehensive preference assessments; instruction on all three components may be needed before therapists can effectively use preference assessments during EIBI therapy sessions.

The issue of when to conduct preference assessments is informed by research examining the stability of preference over time; which consistently indicates that changes in preference are unpredictable (Carr, Nicolson, & Higbee, 2000; Hanley, Iwata, & Roscoe, 2006; Mason, McGee, Farmer-Dougan, & Risley, 1989; Zhou, Iwata, Goff, & Shore, 2001). For instance, Mason et al. conducted 49 brief pre-session paired-stimulus preference assessments across 3 children over 1 month and found that on only four occasions a child selected the same item on two consecutive assessments. Zhou et al. conducted two single-stimulus preference assessments with 22 adults with developmental disabilities over approximately 16 months and found unstable preference for about half the participants. Similarly, Hanley et al. conducted approximately 11 paired-stimulus preference assessments with 10 adults with developmental disabilities over 3–6 months and found unstable preference for three participants. Lastly, Carr et al. conducted eight MSWO preference assessments with three children with autism over 4 weeks and found somewhat stable preference for two participants and variable preference for one participant.

Given that preference is idiosyncratic, it should be assessed regularly during EIBI therapy sessions to detect changes in preference and ensure that highly preferred stimuli are used during teaching programs. As such, therapists should be trained on a quick and easy preference assessment method. The amount of time spent conducting preference assessments should be kept to a minimum, while still allowing for the identification of highly preferred stimuli. The use of comprehensive preference assessments is impractical due to the time required to complete the assessment and interpret the data. Brief preference assessments require less time than comprehensive systematic preference assessments and have been shown to identify effective reinforcers.

Researchers have described a brief free operant preference assessment (Roane, Vollmer, Ringdahl, & Marcus, 1998), a three trial MSWO assessment (Carr et al., 2000) and a brief paired-stimulus preference assessment (Mason et al., 1989). The brief free operant method does not yield a discrete preference hierarchy and requires 5 min to complete. If this method was used to frequently assess preference during EIBI therapy it would consume a substantial proportion of a teaching session and is, therefore, impractical. The brief MSWO method produces a preference hierarchy and requires about the same amount of time to complete as the brief free operant. However, it may be difficult for some children with autism spectrum disorder (ASD) to discriminate between items presented in an array, making the identification of preferred stimuli less reliable.

The brief paired-stimulus method described by Mason et al. (1989) requires the least amount of time to complete, about 1 min, and involves one presentation of two stimuli identified as highly preferred in a single-stimulus preference assessment. The item selected was delivered for correct responses in the teaching session that immediately followed. While one presentation of two stimuli of known preference may be sufficient, the reliance on the inclusion of those sorts of stimuli may limit the variety of items assessed throughout therapy sessions. During EIBI sessions, therapists may include stimuli of unknown preference in an assessment, such as items the child is interacting with, items that caregivers report as preferred, or novel items (Kenzer & Bishop, 2011). Furthermore, since preference may change, there is no guarantee that the stimuli identified as highly preferred in a comprehensive preference assessment will remain highly preferred over time; making it necessary to conduct additional preference assessments. Modifying the brief paired-stimulus preference assessment described by Mason et al. to require a child to select the same item on two consecutive trials would allow one to be more confident that the item selected is, in fact, preferred.

Additionally, researchers have discussed the utility of brief pre-session preference assessments; indicating that stimuli identified during pre-session preference assessments can be used to increase correct responding in a subsequent session (Gast et al., 2000; Mason et al., 1989). An important variable to consider is the length of the session. In Mason et al. each session included one 10 trial teaching lesson, lasting about 10 min. However, EIBI therapy sessions can last several hours and include many teaching lessons. Therefore, it may be beneficial to conduct a preference assessment prior to each teaching lesson to ensure that highly preferred stimuli are used during each lesson throughout a therapy session, regardless of the length of the therapy session.

The purpose of the present study was to extend research on preference assessment training by using a group classroom instruction procedure to teach behavioral therapists how to identify opportunities to conduct preference assessments, how to conduct a brief paired-stimulus preference assessment, and how to interpret the data during regular EIBI therapy sessions. The brief paired-stimulus preference assessment used was similar to the one described by Mason et al. (1989) with two notable differences (a) stimuli included in the brief paired-stimulus preference assessments were not identified using a comprehensive single-stimulus preference assessment, and (b) the same stimulus was selected on two consecutive trials before it was considered preferred and delivered in the subsequent trial block. A secondary purpose was to evaluate the need for individualized in vivo feedback during a therapy session following group classroom instruction comprised of lecture, video modeling, role-play and feedback with a simulated client.