

Keeping Current with the Applied Behavior-Analytic Literature in Developmental Disabilities: Noteworthy Articles for the Practicing Behavior Analyst

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Abstract To meet the appropriate standard of care for their clients, practicing behavior analysts must stay in close contact with the scholarly literature. As one step toward this important goal, we provide an annotated bibliography of recent articles that are deemed to have relevance to behavioral practitioners in the area of developmental disabilities.

Keywords Annotated bibliography · Developmental disabilities · Practitioners · Scientific literature

A practitioner's professional repertoires establish the standard of care available to consumers. Maintaining and improving these repertoires requires a multifaceted effort by the practitioner: obtaining continuing education, seeking consultation and feedback from behavioral colleagues, and staying in contact with recently published behavior-analytic literature. Many practitioners likely contact the recent literature indirectly via professional conferences. However, the contemporary literature is typically not comprehensively presented at local or national professional conferences and, of course, such events are often not peer-reviewed.

Carr and Briggs (2010) described three skill sets necessary in making more direct contact with the

behavior-analytic literature: searching the literature, accessing journal content, and contacting the contemporary literature. Unfortunately, there are several barriers associated with completing each task. For example, in order to access journal content, one might need to pay a costly subscription rate to a journal (though individual journal subscription rates vary) or pay for reprints of articles of interest. The authors offered various pragmatic solutions to identified barriers for staying current with the literature. For example, accessing archived articles in PubMedCentral is one way of accessing free journal content.

Parsons and Reid (2011) recently evaluated a workplace intervention for exposing staff to relevant research literature. The authors demonstrated that reading groups established within agencies not only showed promise in increasing practitioner knowledge of the current and relevant literature but also were well received by the participants of the groups.

The aforementioned publications represent an attempt to support practitioners in their efforts to stay in contact with the scholarly literature. Not only is this obligation one critical for establishing the best standard of care, it is also an ethical one. For example, the *Guidelines for Responsible Conduct for Behavior Analysts* of the Behavior Analyst Certification Board (BACB 2010) states that behavior analysts must base professional decisions on the scholarly literature (1.01—Reliance on Scientific Knowledge; 2.10—Treatment Efficacy) and maintain competence by making contact with the scholarly literature (1.03—Professional Development). In an effort to assist practitioners in the initial step in maintaining contact with the contemporary literature, —i.e., what to read—we have reviewed the recent behavior-analytic literature and provide an annotated bibliography of contemporary journal articles that should be relevant

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Table 1 References, URLs, and annotations for recent articles deemed relevant to practitioners. The articles are ordered alphabetically

Reference and article link	Annotation
Ahrens, E. N., Lerman, D. C., Kodak, T., Worsdell, A. S., and Keegan, C. (2011). Further evaluation of response interruption and redirection as treatment for stereotypy. <i>Journal of Applied Behavior Analysis</i> , 44, 95–108. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050456	An experimental evaluation of response interruption and redirection intervention (RIRD), a treatment that was originally designed for vocal stereotypy. The study extends the existing literature by demonstrating that (a) RIRD can be effective in reducing both motor and vocal stereotypy and (b) incorporating either motor or vocal demands in the redirection portion of the intervention are similarly effective. The article is relevant to practitioners who serve individuals with developmental disabilities because vocal stereotypy can be difficult to treat
Ala'i-Rosales, S., and Zeug, N. (2010). Three important things to consider when starting intervention for a child diagnosed with autism. <i>Behavior Analysis in Practice</i> , 3, 54–55. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004693	A collection of four brief articles written by experts in the area of early and intensive behavioral intervention for ASD. The purpose was to provide advice and guidance when beginning an intervention program. Three areas of focus were described across the articles: (1) the intervention team (e.g., level of competency, skills, resources), (2) assessment and treatment planning (e.g., child's profile, early skills of manding, imitation, social responsivity, and need for a curriculum), and (3) progress monitoring (both procedural-level and program-level data systems). The authors also described the importance of assessment after the first year of intervention. These articles are relevant to practitioners because they provide important considerations and guidance to practitioners when implementing best practices for young children with ASD
Taylor, B. A., and Fisher, J. (2010). Three important things to consider when starting intervention for a child diagnosed with autism. <i>Behavior Analysis in Practice</i> , 3, 52–53. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004692	
Vets, T. L., and Green, G. (2010). Three important things to consider when starting intervention for a child diagnosed with autism. <i>Behavior Analysis in Practice</i> , 3, 56–57. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004694	
Weiss, M. J., and Zane, T. (2010). Three important things to consider when starting intervention for a child diagnosed with autism. <i>Behavior Analysis in Practice</i> , 3, 58–60. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004695/	
Bachmeyer, M. H. (2009). Treatment of selective and inadequate food intake in children: A review and practical guide. <i>Behavior Analysis in Practice</i> , 2, 43–50. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2854063	A narrative literature review of 12 studies on the treatment of inadequate food intake. The article is relevant to practitioners because it focuses on research conducted in nonspecialized (i.e., community) treatment environments and treatment packages that do not include the sometimes-controversial escape extinction component. In addition, the author provides practical recommendations for treatment development
Carr, J. E., Wilder, D. A., Majdalany, L., Mathisen, D., and Strain, L. A. (2013). An assessment-based solution to a human-service employee performance problem: An initial evaluation of the <i>Performance Diagnostic Checklist-Human Services</i> . <i>Behavior Analysis in Practice</i> . <i>Behavior Analysis in Practice</i> , 6(1), 16–32. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3297329	An empirical study validating an assessment (the PDC-HS) for determining possible reasons underlying staff performance problems in human service settings. The authors describe the process utilized for adapting the PDC to this context. A concurrent multiple baseline design was implemented to examine the utility and predictive validity of the PDC-HS in a center-based autism intervention setting. The intervention indicated by the PDC-HS improved staff performance and was superior to treatment as usual. A copy of the PDC-HS is included in the appendix of the article. This new assessment shows promise in understanding and improving staff performance in human-service settings
Carroll, R. A., Kodak, T., and Fisher, W. W. (2013). An evaluation of programmed treatment-integrity failures during discrete-trial instruction. <i>Journal of Applied Behavior Analysis</i> , 46, 379–394. http://onlinelibrary.wiley.com/doi/10.1002/jaba.49/abstract	A series of three studies designed to evaluate the effects of specific treatment-integrity problems on discrete-trial teaching (DTT) outcomes. Study 1 (observational) demonstrated that the most common DTT integrity failures of nine teachers and paraprofessionals involved errors in delivering tangible reinforcers, prompts, and instructions. Study 2 (experimental) demonstrated that a DTT condition that included all of the errors identified in study 1 resulted in slowed or no acquisition compared to a perfect-integrity DTT condition with children diagnosed with autism. Study 3 (experimental) evaluated the impact of each integrity error separately and showed that similar learning impairments. The article is relevant to practitioners who employ DTT procedures because it highlights the importance of high treatment integrity and identifies errors that may be likely to occur
Cuvo, A. J., Godard, A., Huckfeldt, R., and DeMattei, R. (2010). Training children with autism spectrum disorders to be compliant with an oral assessment. <i>Research in Autism Spectrum Disorders</i> , 4, 681–696. http://www.sciencedirect.com/science/article/pii/S1750946710000085	An experimental study designed to improve compliance during dental exams in five young children with ASD. The treatment package was successful at improving compliance during all major components of the dental exam. This article is relevant to practitioners because approximately half of children with ASD engage in escape/avoidance behaviors in dental settings, making it a significant healthcare problem.

Table 1 (continued)

Reference and article link	Annotation
<p>Donaldson, J. M., and Vollmer, T. R. (2011). An evaluation and comparison of time-out procedures with and without release contingencies. <i>Journal of Applied Behavior Analysis</i>, 44, 693–705. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3251275</p>	<p>The authors provide a detailed procedure enabling practitioners to easily consider using the procedure with other clients</p> <p>An experimental study that compared two types of time out procedures: a fixed-duration time out (i.e., the child stays in time out for a specified amount of time and no release contingencies are in place) and a release contingency time out (i.e., no problem behavior can occur for a specified amount of time at the end of the time out period). Both procedures were equally effective. This article is relevant to practitioners because time out is a commonly used procedure for decreasing problem behavior. Practitioners may wish to consider fixed-duration time out first as it places less effort on a caregiver/teacher and would likely have better treatment fidelity than release-contingency time out procedures</p>
<p>Grow, L. and LeBlanc, L. (2013). Teaching receptive language skills: Recommendations for instructors. <i>Behavior Analysis in Practice</i>, 6(1), 56–75. http://www.ncbi.nlm.nih.gov/pmc/issues/223940/</p>	<p>A discussion article that serves as a practice parameter for the teaching of receptive language skills. The authors provide five best-practice recommendations for the development of receptive language programs for children with ASD and developmental disabilities in early intensive behavioral intervention (EIBI) settings. A conceptual analysis, specific practice parameters, a review of the empirical literature and descriptions of common problematic response patterns and some potential solutions accompany each recommendation. Receptive language is a common skill area targeted for intervention for early learners in EIBI settings, which underscores the relevance of this article</p>
<p>Hanley, G. P. (2012). Functional assessment of problem behavior: Dispelling myths, overcoming implementation obstacles, and developing new lore. <i>Behavior Analysis in Practice</i>, 5, 54–72. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3546636</p>	<p>A discussion article on the use of functional analysis procedures. The author provides a critical analysis of common notions about functional assessment, including supposed barriers to conducting experimental functional analysis procedures, and concludes that many of these are unfounded. The author also provides recommendations for customizing functional analyses in an effort to prevent undifferentiated results and includes a functional assessment interview that can be used to assist in the development of a functional analysis. The article is relevant to practitioners who are involved in problem-behavior treatment activities and may not have extensive training in functional analysis procedures^a</p>
<p>LeBlanc, L. A., Heinicke, M. R., and Baker, J. C. (2012). Expanding the consumer base for behavior-analytic services: Meeting the needs of consumers in the 21st century. <i>Behavior Analysis in Practice</i>, 5(1), 4–14. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3546640/</p>	<p>This article is relevant because it serves as a guide for behavior analysts considering diversifying their area of practice in an ethically responsible manner. The authors address challenges for behavior analysts wanting to expand their consumer base and pose multiple targeted solutions. They also identify and discuss BACB professional conduct guidelines relevant to practicing in new areas. The article highlights the benefits of consumer base expansion using the traumatic brain injury and aging populations as examples. Moreover, strategies are provided for increasing competence with a new population as well as approaches to identifying and managing employment opportunities</p>
<p>Lerman, D. C., Harper Dittlinger, L., Fentress, G., and Lanagan, T. (2011). A comparison of methods for collecting data on performance during discrete trial teaching. <i>Behavior Analysis in Practice</i>, 4, 53–62. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3196207</p>	<p>A retrospective comparison of continuous (i.e., all trials) and discontinuous (first trial and first three trials) data collection procedures for assessing progress in discrete-trial teaching. The authors demonstrated that collecting data on the first three teaching trials better corresponded with data from all trials more so than did first-trial data collection. This article is relevant to practitioners because discrete-trial teaching is a common teaching procedure and purposely collecting fewer data during teaching sessions has emerged as a common practice</p>
<p>Parsons, M. B., Rollyson, J. H., and Reid, D. H. (2012). Evidence-based staff training: A guide for practitioners. <i>Behavior Analysis in Practice</i>, 5, 2–11. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3592486/</p>	<p>This article describes a protocol for the delivery of group BST followed by on-the-job training for developing and maintaining competence in targeted skills required in a work situation. The staff training protocol, derived from evidence-based strategies, is described in detail along with possible solutions for common pitfalls. In addition, a case demonstration is presented demonstrating the effectiveness of the protocol in training staff on two targeted skills. Lastly, the authors provide practical considerations for implementing the protocol in order to increase effectiveness, efficiency, and acceptability. This article is relevant to behavior analysts who currently conduct staff training and wish to</p>

Table 1 (continued)

Reference and article link	Annotation
Rodriguez, N. M., Thompson, R. H., Schlichenmeyer, K., and Stocco, C. S. (2012). Functional analysis and treatment of arranging and ordering by individuals with an autism spectrum disorder. <i>Journal of Applied Behavior Analysis</i> , 45, 1–22. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3297329	improve their staff training protocols. Likewise, behavior analysts about to begin staff training programs would greatly benefit from this informative article An experimental study in which the authors systematically analyze and treat the ritualistic behavior (i.e., arranging and ordering objects) of children diagnosed with autism. The authors conducted a series of experimental analyses to demonstrate that the problem behavior was not socially reinforced and identify conditions associated with low levels of the behavior. Various combinations of alternative reinforcement and response blocking were then shown to be effective in reducing the problem behavior. The article is relevant to practitioners who treat individuals with autism spectrum disorders because it illustrates a model for carefully evaluating environmental variables during the assessment and treatment of a common, but understudied, problem
Taylor, B. A., and DeQuinzo, J. A. (2012). Observational learning and children with autism. <i>Behavior Modification</i> , 36, 341–360. http://bmo.sagepub.com/content/36/3/341	A review and discussion article on observational learning and its relevance to for children with ASD. The authors identify component skills of observational learning that are commonly deficient in individuals with ASD. These include attending, imitation, and complex discrimination skills. Intervention strategies to teach these skills, at the individual and classroom level, are provided. This article is relevant to behavior analysts because it highlights an under-targeted area and illustrates intervention strategies for those who are looking to increase learning and social opportunities for children with ASD
Thomason-Sassi, J. L., Iwata, B. A., Neidert, P. L., and Roscoe, E. M. (2011). Response latency as an index of response strength during functional analyses of problem behavior. <i>Journal of Applied Behavior Analysis</i> , 44, 51–67. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050468	A three-experiment article in which the authors demonstrated that (a) high response rates are associated with low response latencies, (b) low latencies to problem behavior were correlated with high response rates in existing functional analyses, and (c) traditional and latency-based functional analyses demonstrated similar reinforcement functions for 9 of 10 participants with developmental disabilities. This article is relevant to practitioners because the incorporation of latency measures in a functional analysis results in substantially fewer instances of problem behavior, which might help mitigate concerns associated with increasing response rates during functional analysis

^a See also Anderson and St. Peter (2013) for a published reply. Anderson, C. M. and St. Peter, C. C. (2013). Functional analysis with typically developing children: Best practice or too early to tell? In response to Hanley (2012). *Behavior Analysis in Practice*, 6(2), 62–76

for many practitioners working in the area of developmental disabilities.

Method

The process for developing the annotated bibliography involved (a) determining characteristics of the consumers of the articles to be identified (e.g., on which research populations to focus), (b) identifying a list of journals to review for relevant articles, and (c) agreement on a set of final articles for annotation and dissemination. In 2009, the Association of Professional Behavior Analysts published the results of a professional employment survey, which indicated that the majority of practicing behavior analysts provided services to individuals with developmental disabilities and autism spectrum disorders (ASD). Similar findings were reported in a subsequent survey by the BACB (2011). Thus, the authors

focused their selection of articles on these clinical populations. The authors then consulted the journal list provided in Carr and Briggs (2010), selecting journals that routinely publish applied behavior-analytic content, including research in the common practice area of developmental disabilities. The journals were as follows:

1. *The Analysis of Verbal Behavior*
2. *Behavior Analysis in Practice*
3. *The Behavior Analyst*
4. *Behavior Modification*
5. *Behavioral Interventions*
6. *Child and Family Behavior Therapy*
7. *Education and Training in Developmental Disabilities*
8. *Education and Treatment of Children*
9. *Exceptional Children*
10. *Focus on Autism and Other Developmental Disabilities*
11. *Journal of Applied Behavior Analysis*

12. *Journal of Autism and Developmental Disorders*
13. *Journal of Behavioral Education*
14. *Journal of Organizational Behavior Management*
15. *Journal of Positive Behavior Interventions*
16. *Research in Autism Spectrum Disorders*
17. *Research in Developmental Disabilities*

All articles published from 2009 through 2013 in each of the 17 journals above were reviewed. The primary criterion used when reviewing and selecting articles was that the content would be of direct use to practitioners, with replication studies largely excluded. The authors attempted to select a range of topics (e.g., treatment integrity, receptive language, functional analysis) and article types (e.g., experimental studies, literature reviews, practice guidelines). The authors separately identified 50 articles and then used a consensus approach to identify 15 articles¹ particularly relevant for practicing behavior analysts. References for these articles along with a brief annotation of each are presented in Table 1.

Conclusion

There are numerous historical, current, and ethical reasons why practicing behavior analysts should stay in contact with the scholarly literature. One purpose of this article was to describe a methodology that behavior analysts could use to identify recent and relevant articles for keeping current with the behavioral literature. This method was utilized to identify relevant articles for the majority of practicing behavior analysts. The results of this process yielded a total of 15 relevant articles, which anecdotally seemed to be a digestible amount for a single or group of behavior analysts to consider reading over a short period of time. Although the present analysis included articles relevant to developmental disabilities, others could apply the same process in identifying articles relevant to their area of clinical interest (e.g., traumatic brain injury,

parent training). In addition, the present analysis could be replicated over time to provide practitioners with ongoing reading recommendations.

When considering individual or agency journal subscriptions, cost is certainly an issue. Of the 15 articles identified in this article, 33 % were from *Journal of Applied Behavior Analysis (JABA)* and 53 % were published in *Behavior Analysis in Practice (BAP)*. The individual annual subscription rate for *JABA* is \$40 for online access (\$44 for print and online) and \$50 for *BAP*. In addition, free access to recent publications from both of these journals is available at PubMed Central. Thus, one simple, relatively low-cost option for maintaining contact with the contemporary literature would be subscriptions to *BAP* and *JABA*.

The emphasis for behavior analysts to stay current with the literature is present upon graduation. Leaving an “academic world” presents a challenge to meeting this goal. Ultimately, it is important to establish workplace contingencies to support ongoing contact with the recent literature. We hope that the present analysis of “what to read” is a helpful first step toward this important goal.

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- Parsons, M. B., & Reid, D. H. (2011). Reading groups: A practical means of enhancing professional knowledge among human service practitioners. *Behavior Analysis in Practice*, 4(2), 53–60.

¹ Some excellent articles did not make our list. The identified articles were not solely selected to reflect the best original science, as our goal was primarily direct relevance to the practicing behavior analyst.