HHS Public Access

Author manuscript

J Appl Behav Anal. Author manuscript; available in PMC 2016 December 01.

Published in final edited form as:

J Appl Behav Anal. 2015 December ; 48(4): 830–844. doi:10.1002/jaba.259.

A Statewide Survey Assessing Practitioners' Use and Perceived Utility of Functional Assessment

Eileen M. Roscoe[1], **Katurri M. Phillips**[2], **Maureen A. Kelly**[1], **Rachel Farber**[3], and **William V. Dube**[3]

[1]The New England Center for Children

[2]Northeastern University

[3]University of Massachusetts Medical School – Shriver Center

Abstract

The field of applied behavior analysis emphasizes the importance of conducting functional assessment prior to treatment development for problem behavior. There is, however, little information regarding the extent to which practitioners are using functional assessment in applied settings for individuals with developmental disabilities (DD). The purpose of the current study was to conduct a survey to assess the degree to which various types of functional assessment are implemented in agencies serving individuals with DD in the state of Massachusetts. Practitioners were asked to indicate their perception about and use of the various categories of functional assessment (e.g., indirect assessment, descriptive assessment, and functional analysis). From the 205 respondents who completed the survey, the most frequently used functional assessment was descriptive assessment. Results indicated that although the majority (67.8%) of practitioners believe functional analysis to be the most informative assessment tool for selecting behavioral treatment, only 34.6% of respondents indicated that they typically use functional analysis to inform the development of a behavior plan.

Keywords

descriptive assessment; indirect assessment; functional analysis; functional assessment; survey

Functional assessment is a process that allows for the identification of variables maintaining problem behavior. There has been an increased emphasis on the use of functional assessment procedures as can be evidenced by mandates such as the Individuals with Disabilities Education Act (2004). This act requires clinicians to conduct a functional (behavioral) assessment prior to a placement change for individuals with intellectual disabilities. Mandates such as these have had an impact on practice by increasing pretreatment functional assessments and reinforcement-based interventions and decreasing reliance on default technologies such as punishment (Kahng, Iwata, & Lewin, 2002).

Correspondence concerning this paper should be addressed to Eileen Roscoe, The New England Center for Children, 33 Turnpike Road, Southborough, MA, 01772. eroscoe@necc.org.

This paper is based on a thesis submitted to the Department of Psychology at Northeastern University by the second author in partial fulfillment of the requirements for a Master's of Science in Applied Behavior Analysis.

Functional assessment is a comprehensive term that includes multiple techniques, including indirect assessment, descriptive assessment, and functional analysis. Indirect assessment includes interviews and questionnaires such as the Motivational Assessment Scale (MAS; Durand & Crimmins, 1988), the Questions About Behavioral Function (QABF; Paclawskyj, Matson, Rush, Smalls, & Vollmer, 2000), and the Functional Analysis Screening Tool (FAST; Iwata, DeLeon, & Roscoe, 2013). Indirect assessment can be quickly implemented and may help identify important client-related information. However, it does not involve direct observation or manipulation of environmental variables, and it has been repeatedly shown to have poor interrater reliability and validity for identifying behavioral function (Iwata et al., 2013; Nicholson, Konstantinidi, & Furniss, 2006; Paclawskyj, Matson, Rush, Smalls, & Vollmer, 2001; Zarcone, Rodgers, Iwata, Rourke, & Dorsey, 1991).

Descriptive assessment involves the direct observation of the target behavior and antecedent and consequent environmental events to identify events that frequently precede or follow the target behavior. After direct observation, data analysis is required to determine correlations between behavior and environmental events. Although such analyses may suggest potential maintaining variables that can be empirically evaluated, they do not identify causal relations. As such, they inform clinicians of only how prevalent events are in relation to problem behavior; they do not indicate how relevant these events are. Numerous studies that have compared descriptive assessment and functional analysis outcomes have shown that they often do not yield the same function, suggesting that descriptive assessment has poor validity for identifying behavioral function (Lerman & Iwata, 1993; Pence, Roscoe, Bourret, & Ahearn, 2009; Thompson & Iwata, 2007).

In contrast to indirect and descriptive assessment, functional analysis involves the manipulation of environmental events combined with direct observation. Because environmental variables are manipulated in a functional analysis, it allows for the identification of cause-effect relations; functional relations are demonstrated rather than inferred. The utility of functional analysis has been shown in hundreds of studies, and it has been replicated across a range of topographies and client characteristics (e.g., Special issue on functional analysis, 2013).

By identifying the function of problem behavior, reinforcement-based interventions that include an extinction component can be developed, reducing the need for punishment. Pelios, Morren, Tesch, and Axelrod (1999) reported increases in the number of studies that have conducted a functional analysis and concomitant decreases in the number of studies that have used punishment during intervention. Kahng et al. (2002) reported similar findings in a review of published functional assessment data sets on self-injury. Specifically, the authors reported increases in the number of published functional analysis data sets and an increase in subsequent reinforcement-based interventions. These findings provide support for the correlation between the reduced reliance on punishment procedures and an increase in the use of functional analysis.

Although functional analysis is the most precise method for identifying behavioral function, two previous surveys found that it was not the most frequently used by practitioners (Desrochers, Hile, & Williams-Moseley, 1997; Ellingson, Miltenberger, & Long, 1999). In a

nationwide questionnaire sent to members of the Psychology Division of the American Association on Mental Retardation, Desrochers et al. (1997) asked respondents to indicate which functional assessment procedures they conducted most often and whether the information was used to inform treatment. Respondents (n = 125) reported that they most frequently conducted indirect and descriptive assessments and that they found descriptive assessment to be most informative for determining behavioral function. Respondents reported functional analysis to be less informative than indirect assessment, descriptive assessment, or clinical judgment.

Desrochers et al. (1997) made a contribution to the literature by reporting individuals' use and perceptions of functional assessment methods. However, because only 30% of the respondents reported spending more than half of their time actually assessing and treating problem behavior, it is unclear the extent to which these findings are representative of clinicians whose primary responsibility is the assessment and treatment of problem behavior. In addition, although the respondents were mostly masters- or doctoral-level practitioners, many of whom had received training in applied behavior analysis, the study was conducted before the standardization of certification requirements in applied behavior analysis. Therefore, the survey outcomes may not reflect the general practices of individuals who have obtained certification and who routinely assess and treat problem behavior.

Ellingson et al. (1999) extended the Desrochers et al. (1997) study by conducting a statewide survey in North Dakota to determine the use and perceived utility of functional analysis among direct care staff at agencies serving individuals with developmental disabilities. The survey included questions regarding how often various types of functional assessment were used, whether respondents found the assessment to be effective for identifying behavioral function, and how useful the assessment was for informing behavioral treatment. Respondents (n = 36) reported that they used indirect assessment with the most clients, followed by functional analysis in the natural environment, and then descriptive assessment. Functional analysis in a controlled environment was reported as the functional assessment used least often. Although respondents indicated that descriptive assessment was most effective in determining behavioral function, they noted that they found functional analysis to be the most useful for informing treatment.

Although the results of Ellingson et al. (1999) are informative, there are some limitations that deserve comment. First, they used a 5-point Likert-type scale to determine the frequency of use for five indirect assessment methods, four descriptive assessment methods, and two functional analysis variations. Therefore, the relative frequency of use for a particular category of assessment (e.g., descriptive assessment) was difficult to determine. Second, the definition for a functional analysis in the natural environment (i.e., "the manipulation of antecedents and/or consequences in the natural environment to measure their influence on the behavior") could have included the implementation of treatment plans, which the authors noted in their discussion as a potential limitation. Third, although the respondents were direct care staff and may have conducted clinical assessments, Ellingson et al. did not report whether respondents were responsible for making clinical decisions for their clients. Finally, the direct care staffs' status regarding the standards for certification in applied behavior analysis could not be determined.

Given the aforementioned limitations, the purpose of the current study was to replicate and extend previous functional assessment surveys in several ways. First, it has been over a decade since a survey of functional assessment practices has been conducted (another survey conducted shortly after the present one will be considered in the discussion; Oliver, Pratt, & Normand, in press). Given research published in the last decade demonstrating the lack of correspondence between indirect assessment or descriptive assessment with functional analysis, it would be helpful to examine current use and perceived utility of these three types of functional assessment. Second, a clear and concise definition for each assessment category was included with each question to increase respondents' discrimination among assessment methods. Third, we attempted to include a large number of individuals who were BCBAs by using a mailing list for a behavior-analytic conference and an online BCBA registry to identify potential respondents.

Method

Participants

We selected respondents by nonrandom sampling. Sources for potential respondents included (a) the mailing list of individuals who attended a regional behavior analysis conference that offered continuing education credits for BCBAs, (b) a list of professionals who worked in public schools or private programs serving individuals with autism and other special needs in Massachusetts (obtained from the first author of Graff & Karsten, 2012), and (c) the online certificant registry of BCBAs on the Behavior Analyst Certification Board website (http://www.bacb.com). The names from these sources were compiled and alphabetized, and duplicate names were deleted. The resulting list included 1483 names and email addresses.

Survey structure and contents

The development process for the survey included pilot testing and content reviews by senior professionals and behavior analysts with advanced graduate degrees and substantial experience. The survey was conducted online via a survey-hosting website. The initial survey screens included a brief introduction stating that the survey would require approximately 15 min (based on pilot testing) and respondents could enter into a raffle for gift cards upon survey completion. The survey included 21 multiple-choice questions. Ten questions (see Table 1) asked for demographic information (e.g., the size and type of agency where they work, the population they serve). Eleven questions (see Tables 2 and 3) were content-based and included questions regarding the functional assessment category used for identifying the function of problem behavior, opinion of which type of functional assessment is necessary or sufficient for determining behavioral function, and perceptions of potential barriers for conducting functional analysis. We did not ask respondents to list age or gender. For the content-based questions, the name and definition for each type of functional assessment were always displayed on the screen. *Functional analysis* was defined as "systematically manipulating environmental events under different conditions while directly observing and measuring problem behavior." *Descriptive assessment* was defined as "direct observation of behavior and environmental events, but no manipulation of

environmental events." *Indirect assessment* was defined as "questionnaire or interview but no direct observation of behavior."

Procedure

We posted the online questionnaire on the SurveyMonkey.com® Internet survey hosting website. The second author sent an email to potential participants asking them to complete a survey about perception and use of functional assessment. Respondents were given a deadline of two weeks for completing the survey. In the email message, potential participants were informed that they could provide an e-mail address to be entered into a raffle for a $100, a $50, or one of two $25 gift cards. These gift cards were awarded to four randomly selected respondents after the survey was closed. The email included a link to the survey. The SurveyMonkey software included controls to permit only one survey response per email address. Completed surveys were electronically and automatically forwarded to the researchers from the website.

Response measurement and data analysis

For each question, the percentage of participants who selected each response option was calculated. If a question allowed respondents to select more than one response, those totals may exceed 100%. Responses to content-based questions were analyzed using a tool included on the SurveyMonkey website. This tool allowed the results of a particular question to be compared to other questions in the survey. In addition, answers could be analyzed according to specific parameters, such as BCBA certification status and employment setting (e.g., what proportion of respondents who answered that they used descriptive assessment most frequently were BCBAs or worked in a public school setting?).

Results

Some email invitations resulted in automated replies announcing deactivated or unrecognizable email addresses or that an individual in the BACB certificant registry had indicated that he or she did not want to be contacted. Disregarding these, the total number of emails successfully sent was 958. SurveyMonkey reported that 281 individuals responded to the survey, for a return rate of 29.3%. Of these, 205 completed the survey, and the data analysis presented below is based on these respondents.

Respondents' answers to the 10 demographic questions are depicted in Table 1. The majority of respondents indicated that they had a master's degree (86.3%), received their degree in behavior analysis (55.1%), and were certified as a BCBA or BCBA-D (83.9%). In addition, the majority of respondents worked as behavior analysts (54.6%), many worked in public schools (47.3%), and the great majority served individuals with an autism spectrum disorder (94.6%). They also reported that most of the individuals served had a moderate (74.1%) or severe (71.2%) level of special needs, and that most of the programs served more than 10 individuals (86.8%). Nearly half of respondents (45.4%) reported that they had 1 to 15 individuals on their caseload, and all respondents reported that they had developed or written a program for decreasing an individual's problem behavior within the past 5 years.

Responses to the six questions regarding respondents' knowledge and use of the functional assessment methods are depicted in Table 2. Almost all of the respondents (over 90%) reported that they had heard of the terms functional analysis, descriptive assessment, or indirect assessment, and 82.4% of respondents reported that they had prior experience serving as the primary therapist or a data collector during a functional analysis. When asked how many of the individuals on their caseload had received a functional analysis for their problem behavior that was in need of an intervention, 61.9% of respondents reported none or almost none.

When asked what type of functional assessment they typically use to inform the development of a behavior plan, 62% reported that they conducted a descriptive assessment either alone or in combination with an indirect assessment (37.6% typically conducted a descriptive assessment alone), whereas only 34.6% reported that they typically conducted a functional analysis either alone or in combination with either a descriptive assessment or an indirect assessment. Of those respondents who reported that they typically conducted a functional analysis (either alone or in combination with other methods), the large majority (80.3%) reported that they had received a variety of training components including instruction, direct observation, and performance feedback. When asked which functional assessment method they used most frequently, 84.4% reported descriptive assessment and only 10.2% reported functional analysis.

Respondents' answers to the five questions on perceptions about functional assessment are depicted in Table 3. In the first perception-based question, respondents were asked to select the statement that most accurately reflects their current beliefs regarding behavioral assessment. The majority of respondents (67.8%) responded that a functional analysis is the most informative tool for treatment development, whereas a much smaller percentage of respondents (26.8%) responded that descriptive assessment is the most informative tool. When asked whether descriptive assessment was sufficient for determining the function of problem behavior, 53.7% of responses were affirmative. When asked whether indirect assessment was sufficient for determining the function of problem behavior, only 4.9% of respondents answered affirmatively.

When respondents were asked which functional assessment method they felt was absolutely necessary for determining the function of an individual's problem behavior, only 37.6% reported that a functional analysis alone or in combination with a descriptive assessment or indirect assessment was necessary (14.1% reported that a functional analysis alone was necessary). When asked what they viewed as the biggest barriers to conducting a functional analysis, the top four responses included a lack of space (57.6%), a lack of trained staff (55.6%), lack of support or acceptance of the procedure (46.3%), and lack of adequate time or client availability (42.4%).

When asked about current belief regarding which functional assessment was most informative for selecting treatment, the majority of respondents answered that a functional analysis was most informative (67.8%, Table 3, item 1). This finding held true across education level (Figure 1, top panel), certification status (Figure 2, top panel), and clinical setting (Figure 3, top panel). When asked which type of assessment they used most

frequently, the majority of respondents answered that they used descriptive assessment (84.4%, Table 2, item 6) and only 10.2% used functional analysis most often. Again, this finding held true across educational level (Figure 1, bottom panel), certification status (Figure 2, bottom panel), and clinical setting (Figure 3, bottom panel); regardless of these factors, the majority of informants indicated that they were not typically conducting a functional analysis.

Discussion

Results of the current survey indicated that the majority of respondents reported using descriptive assessment more often than functional analysis for identifying the function of problem behavior. Although this finding replicates previous survey outcomes (Desrochers et al., 1997; Ellingson et al., 1999), the finding seems surprising given research published since those surveys demonstrating that results from functional analysis often differ from those of descriptive assessment (e.g., Lerman & Iwata, 1993; Pence et al., 2009; Thompson & Iwata, 2007). Although descriptive assessment can be useful for identifying antecedent and consequent events that may be correlated with problem behavior, it does not always provide valid information regarding behavioral function and may result in false-positive outcomes for attention (St. Peter et al., 2005; Thompson & Iwata, 2007). For example, when comparing functional analysis and descriptive assessment results for 12 individuals, Thompson and Iwata (2007) found that attention was identified as the most common consequence for problem behavior in the descriptive assessment for 10 individuals but shown to maintain problem behavior for only two individuals in the functional analysis. Given that descriptive assessment provides information on structural characteristics of the environment, it is not surprising that attention is often identified because it is commonly delivered in many contexts irrespective of the occurrence of problem behavior. Furthermore, some forms of behavior are difficult and unethical to ignore. Therefore, descriptive assessment may often indicate attention as a consequence regardless of whether attention maintains problem behavior.

Although participants reported using functional analysis less often than descriptive assessment, 67.8% of respondents reported that functional analysis is the most informative assessment tool for selecting a behavioral intervention, whereas only 26.8% of respondents reported that they believe descriptive assessment is the most informative assessment tool (Table 3, item 1). However, when asked which type of assessment was absolutely necessary for determining behavioral function, 58.5% reported descriptive assessment alone or in combination with an indirect assessment, whereas only 37.6% reported functional analysis alone or in combination with a descriptive assessment or an indirect assessment (Table 3, item 4). Therefore, there seems to be a lack of correspondence between respondents' perceptions of which type of functional assessment is most important and which type they feel is necessary and actually used for identifying behavioral function in clinical practice.

There are a number of perceived barriers that may account for the discrepancy between perceived importance and actual use of functional analysis. Examples of perceived constraints include: a functional analysis will take too long, will be too difficult or complex, will cause harm, will be not be accepted by constituents, or will not be amenable to certain

types of behavior (i.e., dangerous, low-rate, or covert behavior; see Hanley, 2012; Iwata & Dozier, 2008). Many such perceived barriers that had some merit in the past no longer do so because empirically derived solutions have been reported for each of them (see Hanley, 2012; Iwata & Dozier, 2008 for several examples), although it seems possible that there may be occasional exceptions to this rule (e.g., extremely violent or dangerous behavior that cannot be allowed to occur even one time).

In the current study, two of the most commonly reported barriers were insufficient time or space. This is somewhat surprising because numerous studies have demonstrated modifications for overcoming time and setting constraints. For example, functional analysis can be abbreviated in a number of ways to make it more efficient. Wallace and Iwata (1999) showed that functional analysis session duration could be reduced to 5 min and yield similar outcomes to 10- and 15-min session durations. Bloom, Iwata, Fritz, Roscoe, and Carreau (2011) demonstrated the utility of a trial-based functional analysis that involved 1-min trials incorporated into the typical teaching context. Wallace and Knights (2003) evaluated a 2-min session functional analysis that was conducted in a vocational setting. The average assessment duration was just 36 min, and results corresponded with those of an extended analysis. Therefore, functional analysis can be conducted quickly and in a variety of contexts. Finally, Thomason-Sassi, Iwata, Neidert, and Roscoe (2011) demonstrated the use of a latency-based functional analysis that involved terminating sessions immediately following the delivery of the consequence for the first occurrence of problem behavior. As such, some sessions were ended in less than 1 min.

Another reported barrier from the current study was a lack of trained staff (also reported in Desrochers et al., 1997). This reported obstacle is also surprising for two reasons. First, studies have shown that individuals can be taught to implement functional analysis with minimal training (e.g., Iwata et al. 2000; Moore et al., 2002). Second, as noted by Hanley (2012), if individuals are competent in conducting treatment assessments and in evaluating the effects of behavior change programs, then they can implement a functional analysis. A functional analysis test condition is akin to implementing a relevant baseline condition, and a functional analysis control condition (removing the contingency present in the test condition) is akin to a treatment condition.

Another reported obstacle in the current study was a lack of support or acceptance. Hanley (2012) suggested overcoming this constraint by helping individuals to understand the rationale for reinforcing problem behavior with various environmental events to determine which one is maintaining it. Strategies for doing this include conducting an interview to establish a relationship and obtain constituent input in the functional analysis process, explaining the humanistic and practical reasons for conducting a functional analysis (i.e., testing to see which environmental variables cause the problem behavior which will allow you to develop a more precise and effective intervention), and providing medical analogies (e.g., an allergy test that involves injecting substances into the arm to see which one results in a reaction).

The current study extended previous functional assessment surveys conducted by Desrochers et al. (1997) and Ellingson et al. (1999) in a number of ways. First, it was the

first functional assessment survey to be administered in over a decade to determine current use and perceptions of functional assessment. Second, clear and concise definitions for each assessment category were included with every question to facilitate discrimination among assessment methods. Third, a large number of individuals who were BCBAs were targeted as respondents. In addition, many of the respondents reported that they had written a behavioral program in the last five years and worked in a public school setting. This differed from the respondents in the Desrochers et al. survey, the majority of whom did not routinely perform clinical duties or work in the public school system.

A limitation of the current study was that the survey was limited to practitioners in the state of Massachusetts. Because Massachusetts has a high concentration of practicing behavior analysts as well as behavior analytic clinical programs and graduate programs, it is possible that the outcomes reported here are not representative of other locations, particularly those that have fewer behavior analysts. Although it is unlikely that we would have seen increased use of functional analysis in other settings with fewer behavior analysts and BCBAs, it is possible that the results would show lower perception of functional analysis as an important tool. Oliver et al. (in press) conducted a more recent FA survey that included a wider range of geographic locations. Similar to our findings, Oliver et al. also found that respondents reported using descriptive analysis more frequently than functional analysis. However, Oliver et al. found that a lower percentage of their respondents indicated that they found functional analysis to be the most informative functional assessment method. Some potential explanations for these differential findings include the wording of the Oliver et al. questions, the fact that they used a Likert-type scale rather than simple yes or no answers, or the fact that functional assessment terms were not defined in their survey. Future research could evaluate whether different features of the survey method impact outcomes obtained. In addition, research could compare outcomes across geographical locations or years of experience implementing behavior change programs to determine whether certain locations or increased experience positively correlate with adoption and use of functional analysis.

In summary, respondents' perceptions about functional analysis have changed in the past decade as evidenced by the large number of respondents who noted that functional analysis is an important assessment tool. In a recent review of functional analysis research, Beavers, Iwata, and Lerman (2013) reported that during the 30 years since the original publication of the functional analysis model (Iwata, Dorsey, Slifer, Bauman, & Richman,1982/1994) there has been an increase in the number of traditional journals in which studies using functional analysis are published. However, results of the current study suggest that publication trends do not necessarily reflect practice. Looking forward, one optimistic possibility is that techniques for making functional analysis more practical in clinical settings may become more widely adopted and thus increase its use (e.g., Bloom et al., 2011, Bloom, Lambert, Dayton, & Samaha, 2013; Thomason-Sassi, et al., 2011; Wallace & Iwata, 1999). The continued search for such techniques remains an important goal for further research.

Acknowledgments

We acknowledge support by the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development Grant P01HD055456. The contents of this paper are solely the responsibility of the authors and do not necessarily represent the official views of NICHD.

References

Beavers GA, Iwata BA, Lerman DC. Thirty years of research on the functional analysis of problem behavior. Journal of Applied Behavior Analysis. 2013; 46:1–21. [PubMed: 24114081]

Bloom SE, Iwata BA, Fritz JN, Roscoe EM, Carreau AB. Classroom application of a trial-based functional analysis. Journal of Applied Behavior Analysis. 2011; 44:19–31. [PubMed: 21541140]

Bloom SE, Lambert JM, Dayton E, Samaha AL. Teacher-conducted trial-based functional analyses as the basis for intervention. Journal of Applied Behavior Analysis. 2013; 46:208–218. [PubMed: 24114095]

Desrochers MN, Hile MG, Williams-Moseley TL. Survey of functional assessment procedures used with individuals who display mental retardation and severe problem behaviors. American Journal on Mental Retardation. 1997; 101:535–546. Retrieved from http://www.aaiddjournals.org/loi/ajmr.1. [PubMed: 9083609]

Durand VM, Crimmins DB. Identifying the variables maintaining self-injurious behavior. Journal of Autism and Developmental Disorders. 1988; 18:99–117. [PubMed: 3372462]

Ellingson SA, Miltenberger RG, Long ES. A survey of the use of functional assessment procedures in agencies serving individuals with developmental disabilities. Behavioral Interventions. 1999; 14:187–198.

Graff RB, Karsten AM. Assessing preferences of individuals with developmental disabilities: A survey of current practices. Behavior Analysis in Practice. 2012; 5:37–48. [PubMed: 23730465]

Hanley GP. Functional assessment of problem behavior: Dispelling myths, overcoming implementation obstacles, and developing new lore. Behavior Analysis in Practice. 2012; 5:54–72. [PubMed: 23326630]

Individuals with Disabilities Education Act. 2004 20 U.S.C. § 1400.

Iwata BA, DeLeon IG, Roscoe EM. Reliability and validity of the Functional Analysis Screening Tool. Journal of Applied Behavior Analysis. 2013; 46:271–284. [PubMed: 24114099]

Iwata BA, Dorsey MF, Slifer KJ, Bauman KE, Richman GS. Toward a functional analysis of self-injury. Journal of Applied Behavior Analysis. 1994; 27:197–209. (Reprinted from *Analysis and Intervention in Developmental Disabilities*, 2, 3–20, 1982). [PubMed: 8063622]

Iwata BA, Dozier CL. Clinical application of functional analysis methodology. Behavior Analysis and Practice. 2008; 1:3–9.

Iwata BA, Wallace MD, Kahng S, Lindberg JS, Roscoe EM, Conners J, Worsdell AS. Skill acquisition in the implementation of functional analysis methodology. Journal of Applied Behavior Analysis. 2000; 33:181–194. [PubMed: 10885526]

Kahng, S.; Iwata, BA.; Lewin, AB. The impact of functional assessment on the treatment of self-injurious behavior. In: Schroeder, S.; Oster-Granite, ML.; Thompson, T., editors. Self-injurious behavior: Gene-brain-behavior relationships. Washington, DC: American Psychological Association; 2002. p. 119-131.

Lerman DC, Iwata BA. Descriptive and experimental analyses of variables maintaining self-injurious behavior. Journal of Applied Behavior Analysis. 1993; 26:293–319. [PubMed: 8407680]

Moore JW, Edwards RP, Sterling-Turner HE, Riley J, DuBard M, McGeorge A. Teacher acquisition of functional analysis methodology. Journal of Applied Behavior Analysis. 2002; 35:73–77. [PubMed: 11936549]

Nicholson J, Konstantinidi E, Furniss F. On some psychometric properties of the Questions About Behavioral Function (QABF) scale. Research in Developmental Disabilities. 2006; 27:337–352. [PubMed: 16043323]

Oliver AC, Pratt LA, Normand MP. A survey of functional behavior assessment methods used by behavior analysts in practice. Journal of Applied Behavior Analysis. (in press).

Paclawskyj TR, Matson JL, Rush KS, Smalls Y, Vollmer TR. Questions About Behavioral Function (QABF): A behavioral checklist for functional assessment of aberrant behavior. Research in Developmental Disabilities. 2000; 21:223–229. [PubMed: 10939320]

Paclawskyj TR, Matson JL, Rush KS, Smalls Y, Vollmer TR. Assessment of the convergent validity of the Questions About Behavioral Function scale with analogue functional analysis and the

Motivation Assessment Scale. Journal of Intellectual Disability Research. 2001; 45:484–494. [PubMed: 11737535]

Pelios L, Morren J, Tesch D, Axelrod S. The impact of functional analysis methodology on treatment choice for self-injurious and aggressive behavior. Journal of Applied Behavior Analysis. 1999; 32:185–195. [PubMed: 10396771]

Pence ST, Roscoe EM, Bourret JC, Ahearn WH. Relative contributions of three descriptive methods: Implications for behavioral assessment. Journal of Applied Behavior Analysis. 2009; 42:425–446. [PubMed: 19949536]

Special issue on functional analysis: Commemorating thirty years of research and practice. Journal of Applied Behavior Analysis. 2013; 46:1–353. [PubMed: 24114081]

St. Peter CC, Vollmer TR, Bourret JC, Borrero CSW, Sloman KN, Rapp JT. On the role of attention in naturally occurring matching relations. Journal of Applied Behavior Analysis. 2005; 38:429–443. [PubMed: 16463525]

Thomason-Sassi JL, Iwata BA, Neidert PL, Roscoe EM. Response latency as an index of response strength during functional analyses of problem behavior. Journal of Applied Behavior Analysis. 2011; 44:51–67. [PubMed: 21541141]

Thompson RH, Iwata BA. A comparison of outcomes from descriptive and functional analyses of problem behavior. Journal of Applied Behavior Analysis. 2007; 40:333–338. [PubMed: 17624074]

Wallace MD, Iwata BA. Effects of session duration on functional analysis outcomes. Journal of Applied Behavior Analysis. 1999; 32:175–183. [PubMed: 10396770]

Wallace MD, Knights DJ. An evaluation of a brief functional analysis format within a vocational setting. Journal of Applied Behavior Analysis. 2003; 36:125–128. [PubMed: 12723876]

Zarcone JR, Rodgers TA, Iwata BA, Rourke DA, Dorsey MF. Reliability analysis of the Motivation Assessment Scale: A failure to replicate. Research in Developmental Disabilities. 1991; 12:349–360. [PubMed: 1792361]

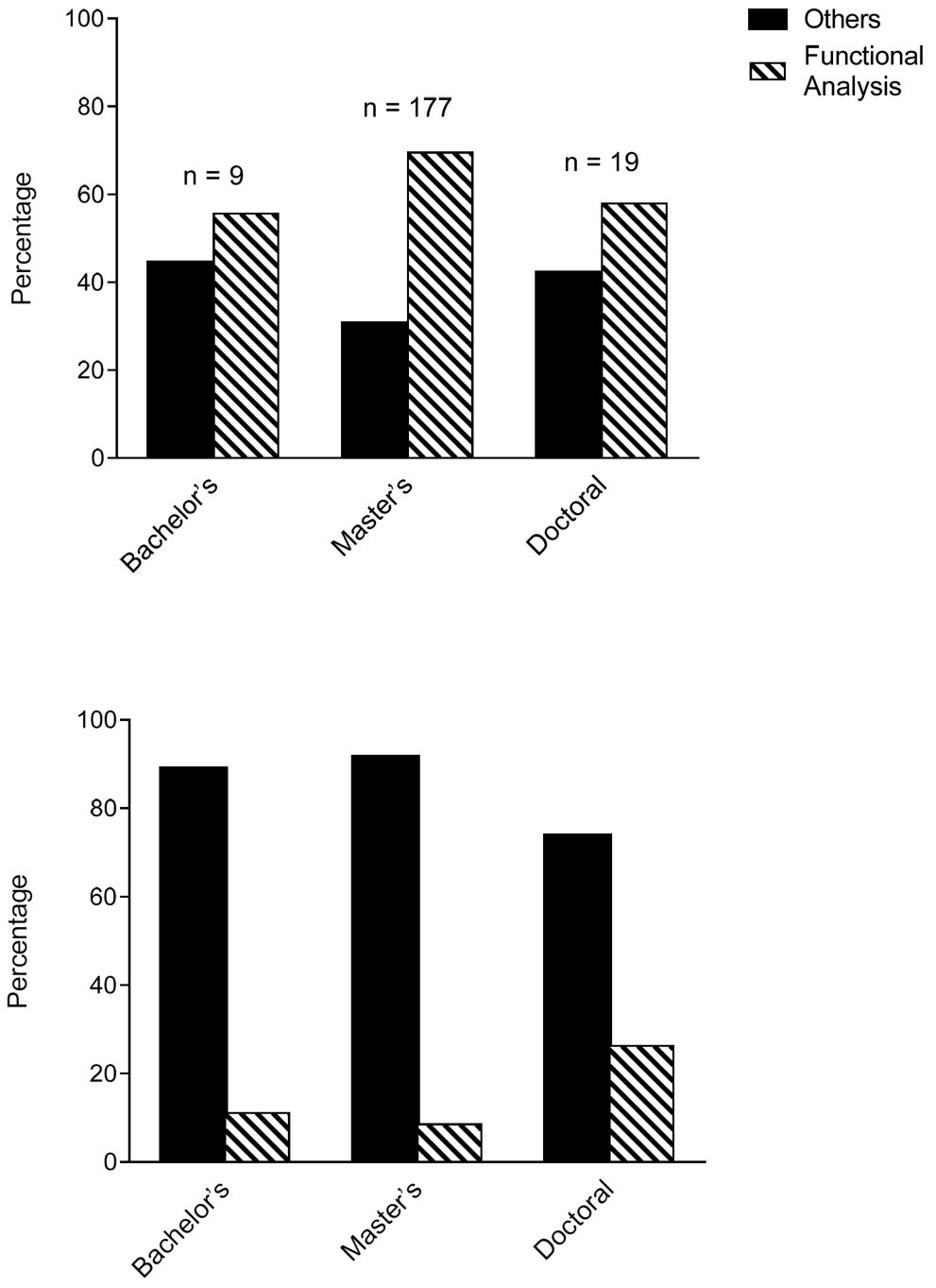

Figure 1.

Top panel: Percentage of respondents within each education level who reported the most informative assessment tool was a functional analysis or another assessment method. Bottom panel: Percentage of respondents within each education level who reported the most frequently used assessment tool was a functional analysis or another assessment method. n = the number of respondents within in each level of education.

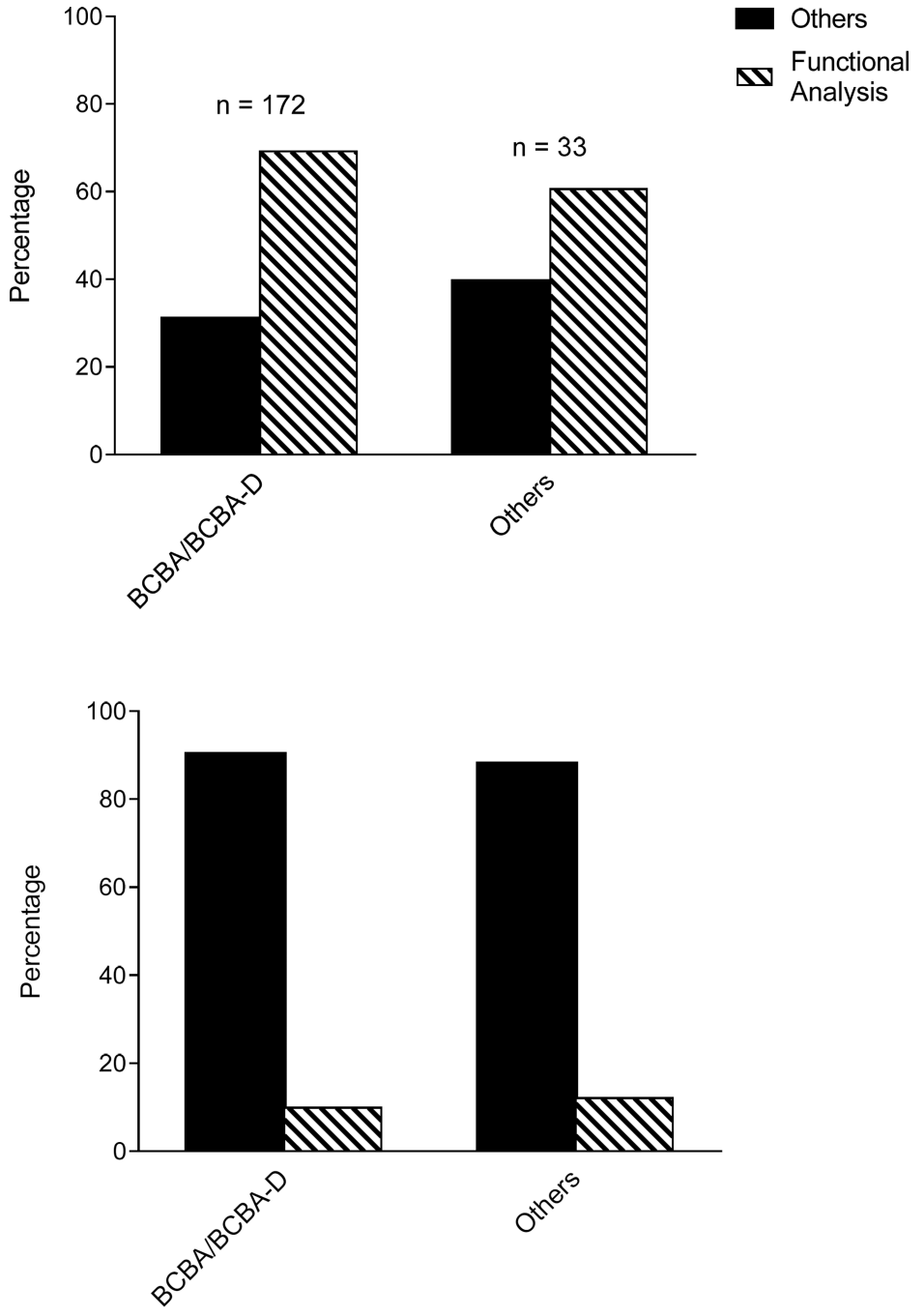

Figure 2.

Top panel: Percentage of respondents with or without a BCBA/BCBA-D certification who reported the most informative assessment tool was a functional analysis or another assessment method. Bottom panel: Percentage of respondents with or without a BCBA/BCBAD certification who reported the most frequently used assessment tool was a functional analysis or another assessment method. n = the number of respondents with or without a BCBA/BCBAD certification.

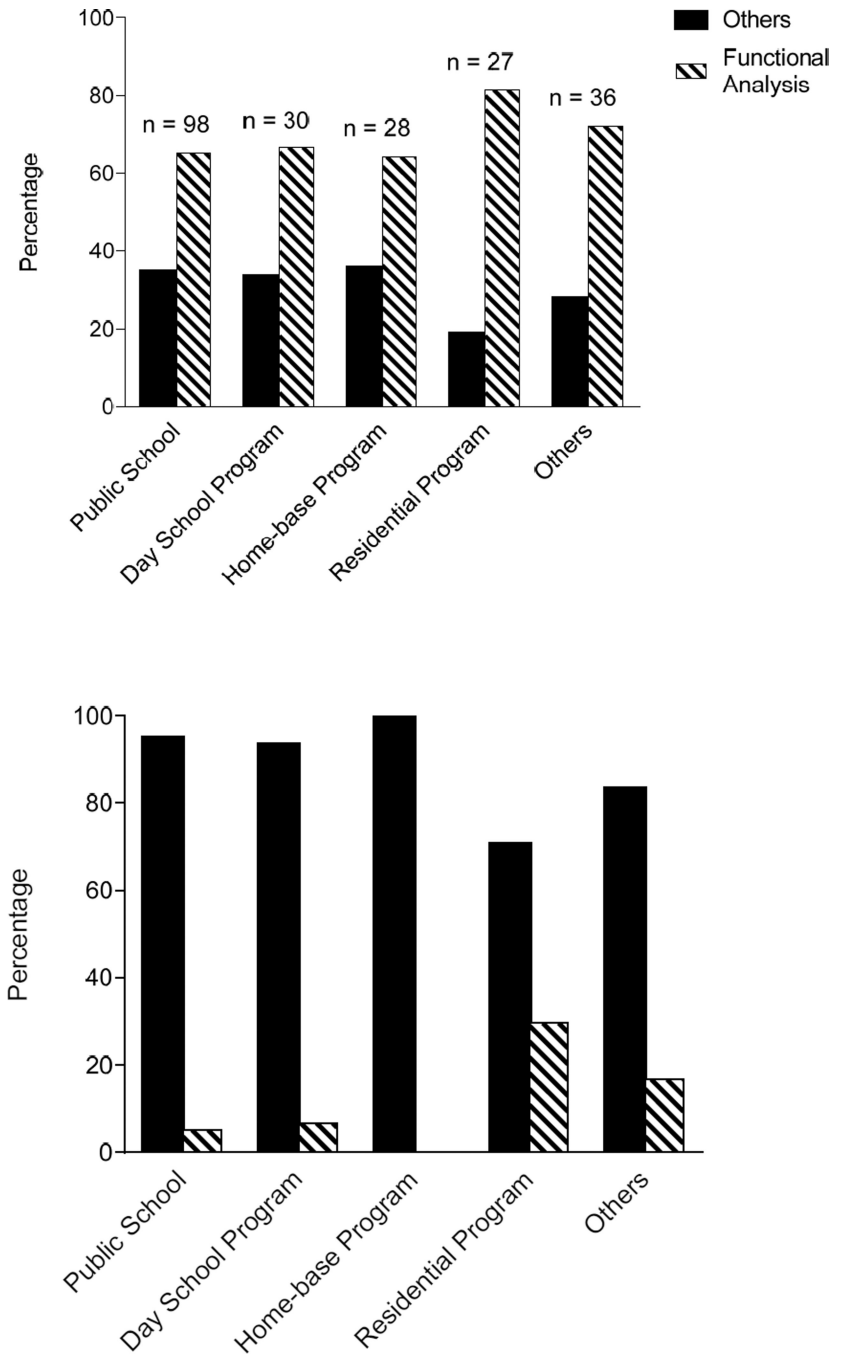

Figure 3.

Top panel: Percentage of respondents within each type of agency who reported the most informative assessment tool was a functional analysis or another assessment method. Bottom panel: Percentage of respondents within each type of agency who reported the most frequently used assessment tool was a functional analysis or another assessment method. n = the number of respondents within each type of agency. *Note*. Responses within each type of agency were not mutually exclusive; respondents could select all agencies that applied.

Table 1

Demographic Questions

	N	%
1. What is the highest degree you hold? (Select one)		
Master's Degree	177	86.3
Doctorate	19	9.3
Bachelor's Degree	9	4.4
Associates Degree-High School Diploma	0	0.0
2. In which discipline did you receive your degree? (Select all that apply)		
Behavior Analysis	113	55.1
Special Education	63	30.7
Education	53	25.9
Psychology	33	16.1
Other (please specify)	13	6.3
3. Are you currently a Board Certified Behavior Analyst? (Select one)		
BCABA, BCBA, & BCBA-D	182	88.8
Yes-BCBA	158	77.1
No	23	11.2
Yes-BCBA-D	14	6.8
Yes-BCABA	10	4.9
4. Which best describes your current position? (Select one)		
Behavior Analyst	112	54.6
Licensed Special Education Teacher	40	19.5
Consultant	25	12.2
Other (please specify)	23	11.2
Direct Care Provider/School Psychologist - Line therapist/Parent/Social Worker/Teacher Asst/Paraprofessional	< 4	< 2.0
5. What best classifies the agency in which you work? (Select one)		
Public School	97	47.3
Day School program	29	14.1
Home-based program	28	13.7
Residential program	27	13.2
Other (please specify)	18	8.8
Adult services/early intervention program, inpatient clinic, outpatient clinic	< 10	< 5
6. What best describes the population your agency serves? (Check all that apply)		
ASD (Autism, Asperger's, & PDD)	194	94.6
Autism	189	92.2
Pervasive Developmental Disorder, Not Otherwise Specified	124	60.5
Asperger's Disorder	101	49.3
Intellectual Disability	100	48.8
Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder	79	38.5
Anxiety Disorders	70	34.1
Communication Disorders	69	33.7
Oppositional Defiant Disorder or Conduct Disorder	66	32.2

Learning Disorders	66	32.2
Disruptive Behavior Disorder, Not Otherwise Specified	55	26.8
Mood Disorder	55	26.8
Bipolar Disorders	52	25.4
7. What best describes the general functioning level of the population your agency serves? (Check all that apply)		
Mild Special Needs (largely independent on academic, hygiene, and domestic tasks; exhibits conversational language)	115	56.1
Moderate Special Needs (exhibits basic repertoire of comments, requests)	152	74.1
Severe Special Needs (requires extensive assistance with the most basic tasks and has little to no ability to communicate)	146	71.2
8. How many individuals with special needs does your program serve?		
1–10	20	9.8
11–25	29	14.1
26–100	73	35.6
Over 100	76	37.1
Other	8	3.9
9. How many individuals do YOU serve? (i.e., how many clients are in your classroom or are included in your case load?)		
1–15	93	45.4
16–30	59	28.8
31–50	31	15.1
76–100	13	6.3
51–75	9	4.4
0	0	0.0
10. Have you developed or written a program for decreasing an individual's disruptive or challenging behavior (e.g., stereotypy, tantrums, or self injury) within the last 5 years?		
Yes	205	100.0
No	0	0.0

Table 2

Knowledge and Use Questions

	N	%
1. Prior to participating in this survey, have you ever heard of these functional assessments? (Check all the apply)		
Functional Analysis	204	99.5
Descriptive Assessment	190	92.7
Indirect Assessment	188	91.7
No, I have never heard of any of these functional assessments	1	0.5
2. Have you, YOURSELF, conducted a functional analysis? (Select one)		
Yes-primary therapist	138	67.3
Yes-secondary therapist/data collector	31	15.1
No	27	13.2
No-I informally observed the assessment (no data collection)	9	4.4
3. For the individuals you serve who have needed an intervention for problem behavior, how many have received a functional analysis? (Select one)		
Almost none	79	38.5
None	48	23.4
About half	45	22.0
All	19	9.3
Almost all	14	6.8
4. What type of functional assessment(s) do you typically use to inform the development of the behavior plan?		
Descriptive Assessment (i.e., involves direct observation of behavior and environmental events, but no manipulation of events) alone or in combination with an indirect assessment	127	62.0
Descriptive Assessment alone	77	37.6
Functional Analysis (i.e., systematically manipulating environmental events under different conditions while directly observing and measuring problem behavior) alone or in combination with an indirect assessment or a descriptive assessment	71	34.6
Functional Analysis alone	14	6.8
Indirect Assessment (i.e., involves questionnaire or interview but no direct observation of behavior) alone	4	2.0
None of the above	3	1.5
5. If you checked functional analysis (either individually or as part of a combination) in the previous question, how did you learn the skills necessary to conduct an experimental functional analysis? (Check all that apply)		
Training that included instruction, direct observation and performance feedback (e.g., part of on-the-job training, part of a bachelor's/master's class, etc.)	57	80.3
Training that included only instruction (e.g., class lecture, workshop, or conference) Please list presenter &/or conference, or level of class lecture	18	25.4
I have independently read published manuals or research articles	22	31.0
I have never received training on functional analysis	0	0.0
Other	2	2.8
6. Which functional assessment method do you use most frequently? (Select one)		
Descriptive Assessment (i.e., involves direct observation of behavior and environmental events, but no manipulation of environmental events)	173	84.4
Functional Analysis (i.e., systematically manipulating environmental events under different conditions while directly observing problem behavior)	21	10.2
Indirect Assessment (i.e., involves questionnaire or interview but no direct observation of behavior)	11	5.4

Table 3

Perception Questions

	N	%
1. Which of these statements most accurately reflects your current belief regarding functional assessment methods? (Select one)		
Experimental functional analysis (i.e., systematically manipulating environmental events under different conditions while directly observing and measuring problem behavior) is the most informative assessment tool for selecting behavioral treatment	139	67.8
Descriptive Assessment (i.e., involves direct observation of behavior and environmental events, but no manipulation of environmental events) is the most informative assessment tool for selecting behavioral treatment	55	26.8
A strong working history and general experience with an individual is the most informative assessment tool for selecting behavioral treatment	10	4.9
Indirect Assessment (i.e., involves questionnaire or interview but no direct observation of behavior) is the most informative assessment tool for selecting behavioral treatment	1	0.5
2. In your opinion, is functional assessment in the form of descriptive assessment (i.e., involves the direct observation of behavior but no manipulation of environmental events) sufficient for determining the function of problem behavior? (Select one)		
Yes, descriptive assessment is sufficient for determining the function of problem behavior	110	53.7
No, descriptive assessment is not sufficient for determining the function of problem behavior	95	46.3
3. In your opinion, are functional assessments in the form of indirect assessment (i.e., does not involve any direct observation of behavior) sufficient for determining the function of problem behavior?		
No, indirect assessment is not sufficient for determining the function of problem behavior	195	95.1
Yes, indirect assessment is sufficient for determining the function of problem behavior	10	4.9
4. Which do you feel is absolutely necessary for determining the function of an individual's challenging or disruptive behavior?		
Descriptive Assessment (i.e., involves direct observation of behavior and environmental events, but no manipulation of environmental events) alone or in combination with an indirect assessment	120	58.5
Descriptive Assessment alone	87	42.4
Functional Analysis (i.e., systematically manipulating environmental events under different conditions while directly observing problem behavior) alone or in combination with an indirect assessment or a descriptive assessment	77	37.6
Functional analysis alone	29	14.1
None of the above	7	3.4
Indirect Assessment (i.e., involves questionnaire or interview but no direct observation of behavior) alone	1	0.5
5. What do YOU view as YOUR biggest barriers to conducting a functional analysis? (Check all that apply)		
Lack of space to conduct functional analysis (i.e., lack of space away from other students, breakable items, and hard or dangerous surfaces)	118	57.6
Lack of trained staff to assist in conducting functional analysis	114	55.6
Lack of support or acceptance of procedure (e.g., from administration, from parents/caregivers, from teachers/clinicians, etc.)	95	46.3
Lack of client availability or time to complete functional analysis	87	42.4
Other (please specify)	46	22.4
Lack of funds to purchase materials needed for a functional analysis	34	16.6
Other behavior(s) or IEP objectives take priority	34	16.6
I don't think functional analysis is necessary for determining a behavioral function	14	6.8
I don't feel that it is ethically appropriate to potentially reinforce challenging or disruptive behavior in the process of identifying the function	14	6.8
Personal lack of knowledge of functional analysis procedures	13	6.3
I don't feel it is safe to conduct a functional analysis	10	4.9