RESEARCH ARTICLE





The Need for Greater Training in Consultation for Behavior Analysts

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Abstract

Behavior analysts can be found in a variety of settings including homes, schools, hospitals, workplaces, residential group homes, nursing homes, and universities (Association for Professional Behavior Analysts [APBA], 2019). As the field expands, behavior analysts find themselves performing a variety of tasks outside of traditional service delivery. A role of significant importance is that of the consultant. This article examines the status of training for behavior analysts. Our work finds that relatively few (11% of board certified behavior analyst programs and 3% of board certified associate behavior analyst programs) verified course sequences (VCSs) in behavior analysis include courses devoted specifically to consultation. Compared to other allied professions, there appears to be a disconnect between training and practice, especially when considering that behavior analysts are increasingly engaged in indirect service delivery through consultees. Finally, we discuss the benefits of consultation and why further devotion to and consistent requirements for training in consultation are needed. Several models of consultation appropriate for training behavior analysts are suggested, as well as information regarding how we might examine the effectiveness of consultation training.

Keywords Behavioral consultation · Training · Behavior analytic consultation

Behavior analysts are trained to address a variety of socially significant concerns. These concerns can be addressed by behavior analysts through efforts such as improved access to education for youth with challenging behaviors, supporting individuals who have substance use disorders, enhanced home, workplace, vehicular, and pedestrian safety, designing organizational behavior management interventions, and more (Association for Professional Behavior Analysts [APBA], 2019). As Friman (2010) discussed, the goal of behavior analysis should be to attain mainstream relevance, suggesting this can be accomplished by integrating into other fields such as primary care (i.e., consulting and collaborating with others).

It would seem the field is attempting to answer this call to action. According to the Behavior Analysis Certification Board's ([BACB] 2018) *U.S. Employment Demand for Behavior Analysts* report, the demand for board certified

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behavior analysts (BCBAs) increased by approximately 800% between 2010 and 2017. Of the numerous job postings seeking behavior analysts, there are more requests for skills in collaboration, aligning with the specific job settings and requirements. Of the job postings examined between 2012 and 2014, 85% of job postings were for employment in health-care settings requiring case management skills (46%), educational settings requiring engagement with school psychologists and other education-related professionals (28%), and social assistance settings requiring work with clinical managers and supervisors (11%; BACB, 2015). It is interesting that only approximately 10% of behavior analysts report engaging in consultative services in their work. However, the three quarters of the field that reported to engage in direct service delivery likely also engaged in consultative services to promote integrity of implementation and generalization (APBA, 2015).

The difference in reporting is potentially due to a fundamental lack of understanding of the definition of consultative services. For the purposes of this article, and in keeping with literature related to consultation, consultation is understood as involving a *consultant* (behavior analyst) with expertise and training in a specific skill set (behavior analysis) who indirectly provides services to a *client* (e.g., a student,

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child, employee) through a *consultee* (e.g., a parent, teacher, employer; Kratochwill & Bergan, 1990). Despite the growing demand for work requiring consultative skills, training in consultation procedures within behavior analysis training programs has yet to support the skills needed for this type of collaboration (Shepley et al., 2017).

Calls for greater consultative and collaborative skills training is not new. Prior to the significant increases in demand for behavior analysts, Miller (1991) expressed concern about the lack of collaborative relationships when engaging in behavior analytic services. Jason and Crawford (1991) echoed these concerns when they wrote about a desire for a "kinder and gentler" approach to behavior analytic work in communities. The aim of this article is to update existing information on training in consultation for behavior analysts, as well as to argue for more thorough attention and additional training devoted to the subject matter within behavior analyst programs. In particular, we will build upon literature suggesting that too little coursework is dedicated to training specific to consultation (see Shepley et al., 2017). We will bolster our argument by considering the social significance of consultative skills for behavior analysts, discuss the benefits of consultation for consultees, and explore how we might improve training in consultation for behavior analysts.

The Status of Training in Consultation for Behavior Analysts

At present, formal training in behavior analysis is guided by task lists developed through job analysis that outline common professional activities (Johnston et al., 2014). To determine and finalize these activities, subject matter experts, a psychometrician, and field experts utilize an iterative process. The number of instructional hours required for the BCBA credential has increased from 280 in the 2002 Third Edition Task List (BACB, 2002) to 315 in the 2016 Fifth Edition revision (BACB, 2020). These training hours are largely devoted to the following: philosophical underpinnings, concepts, and principles (90 hr), behavior change procedures including selecting and implementing interventions (60 hr), behavioral assessment (45 hr), measurement, data display and interpretation, and experimental design (45 hr), personnel supervision and management (30 hr), and, finally, BACB Compliance Code, disciplinary systems, and professionalism (45 hr; Association for Behavior Analysis International [ABAI], 2019). Part of these training hours includes, as mentioned, training in the Ethics Code for Behavior Analysts (BACB, 2020). Within this code, various ethical aspects are discussed including assessments, interventions, provision of supervision, involvement in research, and the behavior analyst's responsibility to the field. Within domain 2.0 "Behavior Analysts' Responsibility to Clients," ethical consultation is outlined. In particular, the *Code* explains that behavior analysts should arrange their consultative services based on the best interest of the clients after obtaining appropriate consents and in keeping with legal and contractual obligations. In addition, where appropriate, behavior analysts are instructed to cooperate with professionals from other disciplines in keeping with the principles of behavior analysis, with the clients in mind. It should be noted that despite these ethical obligations, training in consultation procedures is not explicitly included.

In the fall of 2015, Shepley et al. (2017) examined course sequences and corresponding course descriptions for BACB approved courses thought to address consultative skills using terms such as "consultation," "collaboration," "interpersonal communication," "implementation science," "establishing relationships," and "working with families, school personnel, or other practitioners." Of the 187 programs identified for analysis, 13.9% (n = 26) included at least one consultation course and 3.7% (n = 7) included more than one course devoted to consultation. In their analysis of training in consultation for behavior analysts, the authors point out the discrepancy between the field's growing demand for services within school-based systems and other service delivery models and the lack of training in consultative skills necessary for work in these environments. Since that article was published, little additional research or discussion within the literature has been made addressing these concerns.

We were interested in better understanding the current state of training in consultation for behavior analysts since the Shepley et al. (2017) report. To accomplish this, we located the curricula for programs listed by the ABAI (2023) as verified course sequences (VCSs) and determined whether or not courses focused on consultation. Determinations were made based on title and course description found on corresponding program websites. To meet criteria for addressing consultation, the terms "consultation," "collaboration," or "partnership" were required to be present in the course title name.

Programs listed as VCS through ABAI analyzed in the fall of 2019 were reviewed by searching the websites of corresponding universities. There was a total of 276 ABAI VCS programs reviewed. Of these, 211 programs were training at the BCBA level and 65 programs were training at the board certified assistant behavior analyst (BCABA) level. Curricula were located by searching the websites for each university housing the programs. Course descriptions were reviewed where available. In addition, when curricula could not be located online, attempts were made to contact program directors for the program curricula. Despite these efforts, the curricula for 19 programs (7%)—5 BCABA programs (8%) and 14 BCBA programs (7%)—could not be located and are considered missing. The remaining

sample yielded a total of 258 programs, 61 BCABA programs, and 197 BCBA programs for consideration.

Instructional delivery formats of VCS considered within this analysis are presented in Table 1. Of the 258 programs, 77 programs (30%) were delivered in an online format, 91 programs (35%) were delivered in an in-person format, 52 programs (20%) offered courses in both online and in-person formats, 23 programs (9%) were delivered in a hybrid format, and finally, 15 programs were listed as unclassified by ABAI. Program directors could not be reached for further information. Instructional delivery format approaches were similar across BCBA and BCABA programs.

Of the 258 programs examined, only 21 BCBA programs (11%) and 2 BCABA programs (3%) required courses that included the terms "consultation," "collaboration," or "partnership" in the titles. These data are consistent with the findings of Shepley et al. (2017), demonstrating that approximately 13.9% of BACB approved course sequences included a course devoted to consultation. Although consultation is acknowledged within the ethics code, there is a discrepancy between the skills behavior analysts will need to be successful in the broad range of job settings and the limited access to consultation training offered in behavior analysis programs (Shepley et al., 2017). Although it is possible that training in consultation and collaboration is infused throughout training and coursework, given the specific content requirements dictated by the task lists and the number of hours that must be addressed in each of the training areas it remains unclear how much additional content in other skills (e.g., consultation) can be addressed within these courses. Our data in addition to the lack of literature following the Shepley et al. (2017) study suggest that little attention has been given to training in consultative skills for behavior analysts. Again, despite the growing demand for behavior analysts to serve in consultation role.

Consultation Training in Allied Professions

Many professions in psychology acknowledge that consultation is a critical skill related to applied work in the field, often conceptualized as part of the scientist-practitioner

Table 1 Instructional Delivery Formats for Verified Course Sequences

Method	All Programs	BCBA	BCABA
Online	77 (30%)	57 (29%)	20 (33%)
In Person	91 (35%)	71 (36%)	20 (33%)
Both	52 (20%)	36 (18%)	16 (26%)
Hybrid	23 (9%)	20 (10%)	3 (5%)
Unclassified	15 (6%)	13 (7%)	2 (3%)

model (Donahue & Perry, 2014). When comparing behavior analysis to other allied professions, however, it would seem that those professions have more explicit and formalized requirements for training in consultation. For instance, consultation is part of the training standards for school counselors who are expected to demonstrate competency in consultation to support student achievement and success (American School Counselor Association, 2019). In particular, their standards prescribe modeling strategies for (1) supporting student achievement to key stakeholders including families, teachers, educators, and community organizations; (2) promoting change among consultees within a consultation approach; and (3) working with stakeholders to better understand student needs while identifying strategies for promoting achievement.

The National Association of Social Workers ([NASW] 2019) has also identified consultation as a key aspect of training for school social workers. Their standards direct that school social workers serve as leaders and consultants to promote positive school climates and facilitate understanding of ecological factors that influence student educational experiences (NASW, 2019). Further, the American Speech-Language-Hearing Association (ASHA) has outlined comparable standards indicating that graduate programming must include training in consultation, and speech and language therapists must demonstrate competence in providing interprofessional consultation (Council for Clinical Certification in Audiology & Speech-Language Pathology of the American Speech-Language-Hearing Association, 2018). As an additional example, the Accreditation Council for Occupational Therapy Education (ACOTE, 2020) in collaboration with the American Occupational Therapy Association (AOTA) has put forth standards noting that occupational therapists should be trained to use their skills in consultation with other professionals.

Within the field of school psychology, an area with significant parallels to the field of behavior analysis, consultation is regarded as one of the central professional roles (Cummings, 2002). Indeed, the emphasis on behavioral consultative approaches has roots in behavior analysis (Ervin & Ehrhardt, 2000). Calls for formal training requirements in consultation are longstanding, as the 1970s 38% of school psychology training programs offered courses devoted specifically to consultation (see Meyers, 1978). At present, consultation and collaboration are 1 of the 10 general domains of training and practice for school psychologists (National Association of School Psychologists [NASP], 2020). In particular, in order to be credentialed as a school psychologist, candidates must demonstrate competence in the varied methods of consultation used to improve effective service delivery. The emphasis on training in consultation is also clearly reflected in the NASP's (2020) Professional Standards of the National Association of School Psychologists. In other words, when school psychology programs are reviewed for accreditation, they must demonstrate evidence of at least one course devoted to this practice domain and, therefore, every NASP approved program in school psychology requires at least one school consultation course.

Behaviorally Oriented Models of Consultation for Training

The goal of consultation is to "enhance and empower" the consultee and the systems in which they operate through "cooperative partnerships" (Zins & Erchul, 2002). When providing behavioral consultation, it is helpful to consider the perspective of the consultee, begin with rapport building, have the consultee explain their concern(s), determine what has already been tried, have the consultant describe their experience and why a unique approach is needed, and wait for the consultee to ask for suggestions or strategies (Rork & McNeill, 2008). When that occurs, consultants can then present a strategy or intervention as promising but not without limitations, engage in training and feedback, and modify the mutually selected approach based on availability of resources and the feasibility of the intervention.

Over 25 years ago, Neef (1995) highlighted the importance of a train the trainer model and advanced this concept of consultation training within the research paradigms and broad-based program implementation culture of behavior analysis. This emphasized the needs of practitioners and trainers to attend and adapt to the immediate culture or conditions of a program or environment (Neef, 1995). A healthy body of literature exists supporting the roles of behavior analysts in consultation (see Butler et al., 2002; Cautilli et al., 2005). When considering the consultative model related to behavior analysts as consultants, children and individuals with disabilities are common clients, with parents, caregivers, teachers, school systems, and community workers as common consultees, or trainers. Consultation via train the trainer and technical assistance models is also present within the field of behavior analysis in that the training methodology itself utilizes behavioral analytic principles. Variations of these models can be implemented to instruct parents and caregivers in how to address behavioral concerns (e.g., McGimsey et al., 1995), to support instructional staff in schools and school districts in modifying individual or systems-level behavioral and academic outcomes (e.g., Dufrene et al., 2016; Hagermoser Sanetti et al., 2007; Luiselli et al., 2001), as well as to train direct-care providers in community settings such as school buses and residential facilities (e.g., Luiselli et al., 2010; Putnam et al., 2003).

Considering the significant benefits of a consultation framework for service delivery, the expansion of the behavior analyst's role, and the current societal need for the behavior analyst's expertise, it is critical that all certified behavior analysts receive formal, structured training in consultation methods. It is important to note that we argue that a domain be dedicated within future editions of the task list specifically related to training in consultation. If this training were to be outlined, different contexts, consultees, or settings would require a different model of consultation. Thus, training in consultation would need to be broad, requiring use of multiple exemplars of consultation models. Recognizing that a variety of models and consultative approaches have been established, we outline several potential models that may benefit behavior analysts: behavioral consultation, conjoint behavioral consultation, and behavior analytic consultation

Behavioral Consultation

Behavioral consultation is a commonly employed model of consultation. Heavily influenced by an applied behavior analysis framework of understanding, the process of behavioral consultation includes clearly defining objectives and processes (Kratochwill & Bergan, 1990). This model includes a four-stage sequence: problem identification, problem analysis, plan implementation, and plan evaluation (Kratochwill & Bergan, 1990). Problem identification begins with initial interviews to determine a description of the current problem and end goals of the consultation process. An important component of this stage is to objectively define the behavior, gain an initial understanding of the conditions under which the behavior occurs, and measure the discrepancy between current and desired behaviors (Kratochwill & Bergan, 1990). At this stage, data collection is important to establish a baseline level of functioning. The next stage of the process is problem analysis. This illuminates the behavioral sequence by identifying the various antecedents and consequences related to the target behavior. This information leads directly to the development of an intervention plan (Kratochwill et al., 2008). However, collaboration with consultees at this stage is crucial to ensure the plan is acceptable and logistically viable (Kratochwill et al., 2008). Following analysis is plan implementation. Once an evidence-based plan is selected, the intervention is implemented. Critical elements of plan implementation include ongoing data collection and contact with the consultant. This will help to evaluate effectiveness of the intervention plan and support intervention fidelity. Finally, plan evaluation occurs once the intervention stage is complete. This stage evaluates the effectiveness of the intervention by comparing baseline and intervention data. This comparison can help the consultant and consultee determine if the intervention led to incomplete, partial, or full goal attainment according to the plan. Although this model is widely used, it has received notable criticisms. For instance, Witt et al. (1996) described drawbacks of the behavioral consultation model regarding direct observation and intervention fidelity. In particular, lack of direct interaction between the consultant and client whose behavior is being intervened upon may lead to inaccuracies in identification of problem behaviors and behavioral sequences. In addition, success of behavioral consultation requires accurate implementation of an intervention, which may vary depending on an individual's teacher skillset and the follow through of the consultant.

Conjoint Behavioral Consultation

Conjoint behavioral consultation ([CBC] Sheridan et al., 2013) is a model commonly used in educational settings designed to assist students whose emotional, behavioral, or socioeconomic circumstances put them at risk for academic underperformance and related concerns. This model incorporates ecological theory and the principles utilized in behavioral consultation to bridge a student's experience across home and school environments (Sheridan, 1997). In this model, the parents, teachers, and consultant collaborate to design interventions across school and home settings (Sheridan et al., 2013). As such, the responsibility and investment for the student's success is shared among individuals who represent important figures in their respective environments and the student experiences a broader network of support. This model has demonstrated utility with students who demonstrate emotional and behavioral concerns (Wilkinson, 2005), as well as students from varied backgrounds including marginalized racial or ethnic identities, low-income or economic marginalization, as well as membership in diverse family structures (Sheridan et al., 2006).

Behavior Analytic Consultation

Mueller and Nkosi (2007) extend the work of Bergan's (1977) original behavioral consultation model and the Sheridan (1997) model discussed above. In particular, the Behavior Analytic Consultation to Schools (BASC) consultative model seeks to address the most severe behaviors encountered by educational professionals (Mueller & Nkosi, 2007). This model is described as engaging eight processes in progression: (1) functional behavior assessment (FBA); (2) functional analysis; (3) treatment selection; (4) treatment evaluation; (5) teacher training; (6) evaluation of teacherimplemented treatment; (7) generalization evaluations; and (8) assessment of social validity. In this model, the consultant is a skilled expert in conducting FBAs and functional analyses with integrity. They first implement the treatment themselves to ensure appropriateness of the treatment both in terms of ease of delivery and treatment likelihood to produce desired outcomes. The consultant continues this process until they feel confident that they have selected the most successful intervention for the referral concern.

The consultant then begins training staff on intervention implementation by: (1) modeling the intervention; (2) rehearsing the intervention with staff; (3) role-playing the intervention with staff; and finally, (4) providing performance feedback. After the treatment has been successfully implemented by staff, it is then reevaluated and generalized to other staff. Finally, the consultant works with staff members to eventually fade the intervention, maintain behavior change and reduce of data collection. They then assess the social validity of the intervention and treatment acceptability. Although this model is based on consultation within school systems, there are numerous other applications including primary care medical facilities (as suggested by Friman, 2010), assisted living communities, or any number of other community service agencies.

Measuring the Effectiveness of Training and the Application of Consultative Skills

Given the variety of consultation models and the breadth of application, it is important to consider what might effective training includes. And, how we as trainers can incorporate best practices to achieve desired outcomes for students and their future clients. These questions must be addressed in the field.

The BASC consultative model is likely the most used by behavior analysts across many settings and would be a natural leading choice in training behavior analysts in consultative skills. However, different presenting concerns and consultative contexts will require behavior analytic consultants to be flexible in their skills and knowledgeable of the various models and approaches appropriate to the distinct needs of the situation.

In terms of how this might be accomplished, Donahue and Perry (2014) proposed that when delivering instruction regarding practical, applied psychological skills while supporting theoretical fluency, attention be given to a three-component model including practicum setting, course assignments, and supportive supervision. Further, they argue that most programs focus on content areas above and beyond pedagogical approach to transferring theory and skills, or science and practice.

One competency-based training model that resulted in change to consultant behavioral skills was evaluated by LePage et al. (2004). To determine the training effects of the consultation training program, the authors investigated outcomes at both the consultant and client levels. Twenty-four consultants were instructed in the process of consultation using a competency-based model of training including elements such as readings, recordings, observation, and supervision. On average, the consultants reached a high level of behavioral process integrity when engaging in consultation

(i.e., at least 80% based on the Behavior Consultation Process Checklist). In addition, consultants increased knowledge in behavioral consultation, modification, and principles from pre- to posttest, with an overall maintenance of training benefits at follow-up. Effects on client (i.e., preschoolers) behavior varied, resulting in an average effect size of 0.51.

In a qualitative evaluation of four school psychology graduate students, Newell et al. (2013) assessed knowledge, confidence, and skills in consultative services using a computer-based school simulation which might be especially relevant given the growth of online training programs in the field. Results indicated that although students had knowledge and confidence in the consultative process, their behavioral skills did not meet benchmark levels. This further emphasizes the need for consultation-based programs to enhance competency-based instruction and assessment procedures. Despite the salience of skill growth, the authors maintained that computer-based simulations may be useful tools in the assessment of competency-based skills in practice.

It is also important that training programs consider the traits and knowledge that trainees bring to consultation training. In a study of consultant attributes, Allen and Green (2012) found via secondary analysis of Head Start Mental Health Services Survey that staff-reported child outcomes were not associated with consultant-reported attributes (i.e., knowledge of and experience with Head Start system, relationships with families and staff, training, supervision and support, knowledge of early childhood best practices in mental health). However, consultant report of positive relationships with staff and family, in addition to high levels of support, were associated with staff reports of positive relationships with consultants. These findings suggest that although consultants may be knowledgeable regarding intervention programming, their interpersonal attributes and rapport-building skills may be an important component in the process

Finally, it is important to note that the effectiveness of consultation can be measured in various ways. For example, several rating scales have been used to evaluate school psychologists' consultation skills (for a brief review, see Perez-Gonzalez et al., 2004). Rating scales tend to evaluate performance on domains related to knowledge, consultation performance, interpersonal skills, and behaviors related to motivation and organization. For example, the scale of Professional Skills of the School Psychologist in the Consultation Process ([COMPPE]; Perez-Gonzalez et al., 2004) measures performance on three factors: Expert knowledge and attitudes toward the interaction, coordination in the intervention process, and initiative and intervention followup. Further, utilization of informant-report measures such as these can be applied in a broad range of settings and within various stakeholder groups as one way to measure the benefits of consultation. This process of evaluation provides a rich source of data for both recipients and professionals in the consultant role to continually observe performance and adjust goals and behaviors accordingly.

Limitations of the Current Research

Although our attempt in this article is to discuss the importance of consultation, the current discussion is not without its limitations. One notable limitation to the VCS coursework data dedicated to consultation deals with the method used for identifying courses. It is likely that consultative elements are often infused throughout training across courses within VCS. Therefore, some elements of consultation training may not have been detected within the current analysis. It is also possible that other courses (such as practicum) that address consultative skills were not included because they could not be easily identified as such using our inclusion terms. Thus, it is possible that the current data underestimates the amount of training dedicated to consultation about VCS. Future research may seek to survey trainers of applied behavior analysis to better understand how they are training candidates in consultative services and to what degree this is occurring within their programs.

Despite these limitations, the data suggest that few VCSs include a course specific to consultation. Given what is known about the various settings in which behavior analysts often work, as well as our ethical code which champions collaboration, one might expect that many in the field would identify consultation as a major component of their work. Yet, the APBA (2015) survey of professionals found that only 10% of behavior analysts reported engaging in this work. One potential explanation for the disconnect between a seemingly strong involvement with consultation and a lack of identification as such may deal with the difficulties in which consultation is defined. This is demonstrated within the behavior analytic literature focused on consultation which is often identified using multiple terms including stimulus control transfer procedures (e.g., Allyon & Michael, 1959), train-the-trainer (e.g., Neef, 1995), and collaboration (e.g., Greenwald et al., 2015), to name a few. Future research might also seek to clarify the perceptions of practitioners in the field in terms of how they define consultative services and their role as a consultant, as well as their reflections upon their training in consultation, and their feelings of preparedness for providing consultative services in their current role.

Implications and Conclusions

As Friman (2010) remarks, behavior analysts seeking to make themselves relevant to a wide array of everyday problems must integrate into existing systems of care such as school, primary care facilities, hospitals, human resources departments, wellness centers, and more. To maximize our impact, we must build the capacity of others. This requires building collaborative relationships with others. Consultation is one important means of achieving this goal.

Our work finds that relatively few course sequences in behavior analysis (11% of BCBA programs and 3% of BCABA programs) included courses in consultation. This is consistent with a previous review of coursework (Shepley et al., 2017). Compared to allied professions, this appears to be a blind spot in training especially when considering that much of the activity behavior analysts are engaged in involves indirect service delivery through consultees. As we have outlined in our argument presented here, the field would benefit from considering the additional incorporation of training requirements dedicated to consultation like what has been done in allied professions. Equally important is developing methods to assess consultative skill competency.

Trainers and supervisors interested in expanding the skillsets of current and future behavior analytic professionals might look to resources such as the previously mentioned Professional Standards of the National Association of School Psychologists from NASP (2020) that offer specific learning objectives, which are discussed in greater detail within a special issue of the Journal of Educational and Psychological Consultation led by Fenning et al. (2023). Although these training standards in consultation are obviously tailored specific to the field of school psychology, there many also relevant to our own field (e.g., "School psychologists effectively communicate information verbally and in writing for diverse audiences, such as parents, teachers, school personnel, policy makers, community leaders, and others" and "School psychologists consult and collaborate with educational professionals at the individual, family, group, and systems levels, carefully considering the viewpoints of all parties involved when making decisions" [NASP, 2020, p. 5]). In addition, scholars within the field of school psychology have created the Consultation Training Research Hub (E. McKenney, D. Newman, A. Harris, L. Kaiser, and J. Cooper, personal communication, August, 22, 2022) including a number of resources for trainers and supervisors interested in supporting consultative skill training such as syllabi, assignments, practice materials, video models, readings, and more. It should be noted that these resources also include a special section devoted to "Multicultural School Consultation Training." As the field evolves to incorporate greater training in consultative and collaborative skills, equally important will be to grow those skills through a social justice lens that considers diversity, inclusiveness, and the

advancement of equity within culturally responsive practice (see Mathur & Rodriguez, 2022; Zarcone et al., 2019).

In sum, the unique and important skill set possessed by behavior analysts has important implications for society including the potential to positively affect any number of practical and real issues facing our communities (as described by Friman, 2010). Given the various settings we as behavior analysts find ourselves working in and the strong potential and broad applicability of consultative skills, it makes sense the field would require consistent and sufficient training in this area. Although many programs do offer formal training in consultation, there is an opportunity for the field to expand in this area, which will better prepare trainees, and ultimately benefit the clients they serve. Friman (2021) describes a significant barrier to achieving greater mainstream relevance and impact as a problem with marketing. In particular, he remarks that often behavior analysts approach consultative situations with too much "ideological purity" seeking to remedy deficits in the approaches of other professionals to addressing issues of concern. Indeed, there is evidence that client and consultee perceptions of behavior analytic terms and approaches can be described as negative (see Marshall et al., 2023) or even "unfeeling, dry, and unpleasantly technical" (Freedman, 2016, p. 94). Well-developed consultation skills such as effective interpersonal skills, rapport-building skills, and problem-solving skills, we argue, could be the answer. Greater training in consultative skills—approaches where behavior analysts receive direct instruction in honing the craft of the dissemination of behavior analytic approaches through consultees—would help new generations of behavior analysts to better connect with the masses we are desperate to reach and affect and perhaps even turn the tide of the "branding" issues we as a field continue to face.

Data availability The data collected and analyzed regarding training in consultation across behavior analytic programs is available upon request from the corresponding author.

Declarations

Conflicts of interest The authors of this article have no potential conflicts of interest in the work presented.

Ethical approval This work did not involve human participants and/or animals. As such, no informed consent was required.

References

Allen, M. D., & Green, B. L. (2012). A multilevel analysis of consultant attributes that contribute to effective mental health consultation

- services. Infant Mental Health Journal, 33(3), 234–245. https://doi.org/10.1002/imhj.21333
- Allyon, T., & Michael, J. (1959). The psychiatric nurse as a behavioral engineer 1. *Journal of the Experimental Analysis of Behavior*, 2(4), 323–334. https://doi.org/10.1901/jeab.1959.2-323
- American Council for Occupational Therapy Education. (2020). ACOTE® standards and interpretive guide. https://acoteonline.org/accreditation-explained/standards/
- American School Counselor Association (2019). ASCA School Counselor Professional Standards & Competencies. Alexandria, VA: Author.https://www.schoolcounselor.org/asca/media/asca/Careers-Roles/SCCompetencies-2018-draft.pdf
- Association for Behavior Analysis International. (2023). *Verified course sequence program*. https://www.abainternational.org/vcs.aspx. Accessed 2 Apr 2019.
- Association for Professional Behavior Analysts. (2019). *About behavior analysis*. https://www.apbahome.net/page/aboutba. Accessed 1 Dec 2023.
- Association for Professional Behavior Analysts. (2015). 2014 U.S. professional employment survey: A preliminary report. http://www.csun.edu/~bcba/2014-APBA-Employment-Survey-Prelim-Rept. pdf. Accessed 1 Dec 2023.
- Behavior Analyst Certification Board. (2002). *BCBA task list* (3rd ed.). Behavior Analyst Certification Board. (2015). *US behavior analyst workforce: Understanding the demand for behavior analysts.*
- Behavior Analyst Certification Board. (2018). US employment demand for behavior analysts: 2010–2017.
- Behavior Analyst Certification Board. (2020). BCBA task list (5th ed.). Behavior Analyst Certification Board. (2020). Ethics code for behavior analysts.https://bacb.com/wp-content/ethics-code-for-behavior-analysts/
- Bergan, J. R. (1977). Behavioral consultation. Merrill.
- Butler, T. S., Weaver, A. D., Doggett, R. A., & Watson, T. S. (2002). Countering teacher resistance in behavioral consultation: Recommendations for the school-based consultant. *The Behavior Analyst Today*, 3(3), 282–288. https://doi.org/10.1037/h0099983
- Cautilli, J., Riley-Tillman, T. C., Axelrod, S., & Hineline, P. (2005).
 Current behavioral models of client and consultee resistance: A critical review. *International Journal of Behavioral Consultation and Therapy*, 1(2), 147–164. https://doi.org/10.1037/h0100742
- Council for Clinical Certification in Audiology & Speech-Language Pathology of the American Speech-Language-Hearing Association. (2018). 2020 Standards for the Certificate of Clinical Competence in Audiology. www.asha.org/certification/2020-Audio logy-Certification-Standards/. Accessed 1 Dec 2023.
- Cummings, J. A. (2002). A school psychological perspective on the consulting psychology education and training principles. *Consulting Psychology Journal: Practice & Research*, *54*, 252–260. https://doi.org/10.1037/1061-4087.54.4.252
- Donahue, K. M., & Perry, K. E. (2014). Bringing theory to life for trainees in professional psychology: The role of settings, assignment, and supervision. *Training & Education in Professional Psychology*, 8, 119–126. https://doi.org/10.1037/tep0000016
- Dufrene, B. A., Zoder-Martell, K. A., Dieringe, S. T., & Labrot, Z. (2016). Behavior analytic consultation for academic referral concerns. *Psychology in the Schools*, 53(1), 8–23 https://doi-org.ezproxy.sju.edu/10.1002/pits.21885
- Ervin, R. A., & Ehrhardt, K. E. (2000). Behavior analysis and school psychology. In J. Austin & J. E. Carr (Eds.), *Handbook of applied behavior analysis* (pp. 113–135). Context Press.
- Freedman, D. H. (2016). Improving public perception of behavior analysis. *The Behavior Analyst*, 39(1), 89–95.
- Friman, P. C. (2021). Dissemination of direct instruction: Ponder these while pursuing that. *Perspectives on Behavior Science*, 44(2–3), 307–316.

- Friman, P. C. (2010). Come on in, the water is fine: Achieving mainstream relevance through integration with primary medical care. *The Behavior Analyst*, 33(1), 19–36. https://doi.org/10.1007/ bf03392201
- Greenwald, A., Roose, K., & Williams, L. (2015). Applied behavior analysis and behavioral medicine: History of the relationship and opportunities for renewed collaboration. *Behavior & Social Issues*, 24(1), 23–38. https://doi.org/10.5210/bsi.v24i0.5448
- Hagermoser Sanetti, L. M., Luiselli, J. K., & Handler, M. W. (2007). Effects of verbal and graphic performance feedback on behavior support plan implementation in a public elementary school. Behavior Modification, 31(4), 454–465. https://doi.org/10.1177/0145445506297583
- Jason, L. A., & Crawford, I. (1991). Toward a kinder, gentler, and more effective behavioral approach in community settings. *Journal of Applied Behavior Analysis*, 24, 649–651. https://doi.org/10.1901/jaba.1991.24-649
- Johnston, J. M., Mellichamp, F. H., Shook, G. L., & Carr, J. E. (2014). Determining BACB examination content and standards. *Behavior Analysis in Practice*, 7, 3–9. https://doi.org/10.1007/ s40617-014-0003-6
- Kratochwill, T. R., Altschaefl, M. R., & Bice-Urbach, B. (2008). Best practices in school-based problem-solving consultation: Applications in prevention and intervention systems. *Best Practices* in School Psychology, 5, 1673–1688.
- Kratochwill, T. R., & Bergan, J. R. (1990). Behavioral consultation in applied settings: An individual guide. Springer Science & Business Media. https://doi.org/10.1007/978-1-4757-9395-6
- Lepage, K., Kratochwill, T. R., & Elliott, S. N. (2004). Competency-based behavior consultation training: An evaluation of consultant outcomes, treatment effects, and consumer satisfaction. School Psychology Quarterly, 19, 1–28 https://doi.org/10.1521/scpq.19.1.1.29406
- Luiselli, J. K., Bass, J. D., & Whitcomb, S. A. (2010). Teaching applied behavior analysis knowledge competencies to directcare service providers: Outcome assessment and social validation of a training program. *Behavior Modification*, 34, 403–414 https://doi-org.ezproxy.sju.edu/10.1177/0145445510383526
- Luiselli, J. K., Putnam, R. F., & Handler, M. W. (2001). Improving discipline practices in public schools: Description of a wholeschool and district-wide model of behavior analysis consultation. *The Behavior Analyst Today*, 2, 18–27 https://doi-org.ezpro xy.sju.edu/10.1037/h0099907
- Marshall, K. B., Weiss, M. J., & Critchfield, T. S. (2023). Parents' emotional responses to behavior analysis terms: A comparative analysis. *Analysis of Verbal Behavior*, 1–13.
- Mathur, S. K., & Rodriguez, K. A. (2022). Cultural responsiveness curriculum for behavior analysts: A meaningful step toward social justice. *Behavior Analysis in Practice*, 15(4), 1023–1031.
- McGimsey, J. F., Greene, B. F., & Lutzker, J. R. (1995). Competence in aspects of behavioral treatment and consultation: Implications for service delivery and graduate training. *Journal of Applied Behavior Analysis*, 28(3), 301–315. https://doi.org/10. 1901/jaba.1995.28-301
- Meyers, J. (1978). Training school psychologists for a consultation role. *School Psychology Review*, 7, 26–32. https://doi.org/10.1080/02796015.1978.12086449
- Miller, L. K. (1991). Avoiding the countercontrol of behavior analysts. *Journal of Applied Behavior Analysis*, 24, 645–647. https://doi.org/10.1901/jaba.1991.24-645
- Mueller, M. M., & Nkosi, A. (2007). State of the science in the assessment and management of severe behavior problems in school settings: Behavior analytic consultation to schools. *International Journal of Behavioral Consultation & Therapy*, 3(2), 176–202. https://doi.org/10.1037/h0100798

- National Association of School Psychologists. (2020). The professional standards of the National Association of School Psychologists. https://www.nasponline.org/standards-and-certification/nasp-2020-professional-standards-adopted. Accessed 1 Dec 2023.
- National Association of Social Workers. (2019). NASW Standards for school social work services. https://www.socialworkers.org/Pract ice/NASW-Practice-Standards-Guidelines/NASW-Standards-for-School-Social-Work-Services. Accessed 1 Dec 2023.
- Neef, N. A. (1995). Research on training trainers in program implementation: An introduction and future directions. *Journal of Applied Behavior Analysis*, 28, 297–299. https://doi.org/10.1901/jaba. 1995.28-297
- Newell, M. L., Newell, T. S., & Looser, J. (2013). A competency-based assessment of school-based consultants' implementation of consultation. *Training & Education in Professional Psychology*, 7, 235–245. https://doi.org/10.1037/a0033067
- Fenning, P., Pearrow, M., & Politikos, N. (2023). NASP 2020 Professional practice standards: Applications and opportunities for school-based consultation. *Journal of Educational & Psychological Consultation*, 33(1), 1–9. https://doi.org/10.1080/10474412. 2022.2154675
- Perez-Gonzalez, F., Garcia-Ros, R., & Gomez-Artiga, A. (2004). A survey of teacher perceptions of the school psychologist's skills in the consultation process: An exploratory factor analysis. School Psychology International, 25(1), 30–41. https://doi.org/10.1177/ 0143034304026778
- Putnam, R. F., Handler, M. W., Ramirez-Platt, C. M., & Luiselli, J. K. (2003). Improving student bus-riding behavior through a whole-school intervention. *Journal of Applied Behavior Analysis*, 36(4), 583–590 https://doi-org.ezproxy.sju.edu/10.1901/jaba.2003.36-583
- Rork, K. E., & McNeil, C. B. (2008). A behavioral model of school consultation. The Behavior Therapist.
- Shepley, C., Allday, R. A., Crawford, D., Pence, R., Johnson, M., & Winstead, O. (2017). Examining the emphasis on consultation in behavior analyst preparation programs. *Behavior Analysis: Research & Practice*, 17(4), 381–392. https://doi.org/10.1037/bar0000064

- Sheridan, S. M. (1997). Conceptual and empirical bases of conjoint behavioral consultation. *School Psychology Quarterly*, 12(2), 119–133. https://doi.org/10.1037/h0088954
- Sheridan, S. M., Eagle, J. W., & Doll, B. (2006). An examination of the efficacy of conjoint behavioral consultation with diverse clients. *School Psychology Quarterly*, 21(4), 396–417. https://doi.org/10. 1037/h0084130
- Sheridan, S. M., Kratochwill, T. R., & Bergan, J. R. (2013). Conjoint behavioral consultation: A procedural manual. Springer Science & Business Media. https://doi.org/10.1007/978-1-4757-2512-4
- Wilkinson, L. A. (2005). An evaluation of conjoint behavioral consultation as a model for supporting students with emotional and behavioral difficulties in mainstream classrooms. *Emotional & Behavioural Difficulties*, 10(2), 119–136. https://doi.org/10.1177/1363275205054163
- Witt, J. C., Gresham, F. M., & Noell, G. H. (1996). What's behavioral about behavioral consultation. *Journal of Educational & Psychological Consultation*, 7(4), 327–344. https://doi.org/10.1207/ s1532768xjepc0704_4
- Zarcone, J., Brodhead, M., & Tarbox, J. (2019). Beyond a call to action: An introduction to the special issue on diversity and equity in the practice of behavior analysis. *Behavior Analysis in Practice*, 12, 741–742.
- Zins, J. E., & Erchul, W. P. (2002). Best practices in school consultation. In A. Thomas & J. Grimes (Eds.), Best practices in school psychology IV (pp. 625–643). National Association of School Psychologists.

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