# Suitability of Behavior Analysis in Pediatric Primary Care


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**Abstract** The scope of applied behavior analysis has been narrow, and behavior analysts have focused their attention on special populations. Concurrently, there are many children and adolescents outside of these special populations who may benefit from interventions based on behavior analytic practice and who do not access evidence-based treatments. By implementing interventions in the pediatric primary care setting, behavior analysts could expand the scope of practice in the field while improving access to behavioral health treatment for children and adolescents. Behavior analysts have the foundational skills to provide brief, solution-oriented, and problem-focused evidence-based treatment and, with the appropriate training, would be well-suited for work within a fast-paced pediatric primary care setting. There are current health care system barriers, such as licensure concerns, training barriers, and the need for experience functioning as a provider within a multidisciplinary team, that exist for behavior analysts providing services in this setting. Recommendations for how behavior analysts could overcome these barriers and gain competencies necessary for provBehavior Analyst Certification Boardding behavior analytic services in pediatric primary care are discussed.

**Keywords** Integrated care · Behavioral health providers · Training · Healthcare systems

## Introduction

Applied behavior analysis (ABA) emerged in the late 1960s as a branch of behavior analysis that focused on changing socially important behavior (Baer et al. 1968). This aligned with Skinner's vision of a science of behavior that could be applied broadly to solve complex, real-world problems. The applied practice of behavior

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analysis grew dramatically over the next several decades, and this fast-paced growth broadened the reach of ABA. Expansion of the applied branch of ABA was not without growing pains, however (Critchfield and Reed 2017). Many believed that the applied nature of many applications of ABA moved the practice away from its scientific foundation and methodological rigor, resulting in an increased emphasis on the analytical and behavioral dimensions of ABA. This movement was largely due to a perception that ABA was being packaged as a set of techniques instead of a serious scientific and data driven discipline (Hayes et al. 1980). As a result, the scope of ABA narrowed and behavior analysts focused their attention on special populations and complex problems for which ongoing data collection, experimental analysis, and direct observation of behavior could be feasibly completed (Critchfield and Reed 2017; Friman 2010a, b). Consequently, the success and effectiveness of the application of behavior analysis to special populations have made it difficult for the field to expand its scope of practice more broadly (Friman 2010a, b). Currently, over 75% of board-certified behavior analysts (BCBA's) are working with individuals diagnosed with autism or developmental disabilities (BACB 2018). While the continued work with autism and developmental disabilities remains exemplary, the expansion of ABA to the broader population continues to lag. If ABA could replicate the impact it has had on the 7% of children diagnosed with autism or developmental disabilities with the 50% of children in the broader population with behavioral health problems, that would increase the impact of behavior analysis by over 600% (Merikangas et al. 2010; Zablotsky et al. 2017). In order for ABA to continue to grow as an applied discipline, it must expand its reach beyond these special populations to, as Friman (2010a, b) described, the "mainstream" (p. 20) One way this can be done, as Friman argues, is through the application of ABA within medical settings, specifically primary health care. The purpose of this chapter is to review the application of ABA within pediatric primary care settings.

## Main Body

Current prevalence data suggest that between 20 and 50% of children and adolescents will experience a behavioral health problem before the age of 18 (Costello et al. 2003). The majority of children who would benefit from behavioral health services never access treatment. Less than 20% of children who need behavioral health services ever receive treatment (Costello et al. 2014; Wu et al. 1999). In contrast, approximately 90% of children in the United States receive some form of primary care (Stancin and Perrin 2014). Pediatricians have become the most preferred provider by parents and, as a result, parents of children and adolescents with behavioral, emotional, and psychosocial concerns present to their pediatricians' office seeking treatment (Polaha et al. 2011). In fact, behavioral health concerns are the primary reason for visits to pediatricians in 15–21% of cases. Even during routine medical visits, such as well child visits, behavioral health concerns are frequently brought up by parents (Lancaster et al. 2018; Polaha et al. 2011; Sharp et al. 1992; Wildman and Langkamp

2012). Thus, it is estimated that pediatricians are providing up to 80% of behavioral health treatment for children. Unfortunately, pediatricians report barriers to adequately addressing their patients' behavioral health concerns. Not only do pediatricians have insufficient training in behavioral health assessment and treatment (Biel et al. 2017; Horwitz et al. 2007), the average primary care visit only lasts 13–17 minutes, giving providers very little time for assessing and treating these concerns in addition to medical concerns (Cooper et al. 2006). Pediatricians often rely on referring their patients to outside specialty mental health services with low follow-up rates due to a variety of reasons including long waits (Laureer et al. 2018) and lack of knowledge regarding appropriate referrals (Green et al. 2017). When patients return to pediatricians with untreated behavioral health concerns (Briggs-Gowan et al. 2000), pediatricians may rely on medications, even when the evidence shows that behavioral treatments are just as effective (Epstein et al. 2014), if not more effective in the long-term, especially in cases of ADHD and mild to moderate depression.

To address the need to treat behavioral health concerns where they commonly present, integrated pediatric primary care involves integrating a behavioral health provider within the pediatric primary care office. Adding behavioral health providers to the team can shift the behavioral health care away from the pediatrician and to a provider within the office who has the expertise in evidence-based behavioral assessment and treatment. Because primary care visits with behavioral health concerns last longer, reducing pediatrician productivity and taking time away from medical care (Meadows et al. 2011), primary care providers welcome the support of a behavioral health provider. Well-child visits often screen for these concerns early on and offer an opportunity for catching problems before they significantly impact other areas of functioning (e.g., academic functioning; Talmi et al. 2016). A majority of behavioral health problems that present in primary care include ADHD, behavioral or conduct problems, anxiety, and depression, all of which can be effectively treated with behavioral therapy (Perou et al. 2013). When these behavioral concerns are identified in primary care, referral to a behavioral health provider in the office demonstrates higher rates of follow-up than when pediatricians refer to an outside specialty mental health provider (Wildman and Langkamp 2012). Providers report satisfaction with integrated behavioral health because of the increased continuity of care for their patients and families (Hine et al. 2017). Some barriers (e.g., stigma, new location) to receiving behavioral health care are reduced because parents can come to the same clinic where they are accustomed to taking their child for routine medical care (Wildman and Langkamp 2012). Lastly, children who receive care in a clinic with integrated pediatric primary care demonstrate better outcomes than those who do not receive medical care in a clinic with integrated pediatric primary care (Asarnow et al. 2016). Integrated pediatric primary care can increase access to quality, evidence-based treatment, which demonstrates better outcomes for children than usual care (Weisz et al. 2013). Thus, pediatricians, parents, and children all benefit from integrating behavioral health care into primary care.

In response to early results demonstrating the benefit of integrated behavioral health in pediatric primary care, organizations such as the American Academy of Pediatrics support this model of care (Stancin and Perrin 2014). Despite the acceptability of

integrated behavioral health by pediatricians, parents, and organizations, the majority of pediatric primary care clinics do not employ integrated behavioral health services, and those clinics who have integrated care typically utilize behavioral health specialists in the field of psychology or social work (Kaslow et al. 2015; Kazak et al. 2017; Rozensky 2014). Because practicing in primary care differs from the traditional outpatient mental health settings, where most psychologists and social workers receive training, their current practice does not directly translate to primary care.

Medicine is evidence based and tends to be protocol driven, thus behavioral health providers practicing in this setting should also be implementing evidence-based interventions. This is problematic because not all mental health professionals currently utilize evidence-based interventions (Institute of Medicine 2006). Furthermore, with a constant referral source from PCPs, behavioral health providers must also prioritize efficiency. Primary care is a fast-paced setting, and, thus, behavioral health providers have to practice in a way that aims to increase access to care. Mental health professionals typically orient toward helping few, whereas integrated care has to focus on helping many (O'Donohue et al. 2014). This can be difficult for behavioral health providers who have to move away from models of care typically used in traditional mental health settings (e.g., 50-minute therapy hour, once weekly sessions, and long-term therapy). Pediatricians expect that the presence of a behavioral health care provider will increase access to these services for their patients, but if behavioral health providers do not have availability to schedule their patients, it is of no benefit to them. This means that behavioral health providers have to maintain a solution-oriented and problem-focused approach and have the skills to delivery evidence-based interventions in a brief format. Because behavioral health providers are required to adapt treatments to the primary care setting, it is also necessary that they use data to demonstrate the interventions delivered in this setting are effective.

Despite being skilled at implementing treatments for behavioral health concerns that often present in pediatric primary care (Friman and Piazza 2011), behavior analysts have been excluded from discussion of behavioral health providers suitable for integrated pediatric primary care. Psychologists have been the trail blazers in integrated care, advocating for their spot on a child's health care team. As a field, psychology has defined specific competencies in response to the unique set of skills required of a behavioral health provider in primary care (Hoffses et al. 2016; McDaniel et al. 2014). It can be argued that behavior analytic providers already possess the necessary skills to provide brief, solution-oriented, and problem-focused evidence-based treatment and, with the right training, would be well-suited for work within a fast-paced primary care setting.

## Training Issues for Providing Behavioral Health Services in Pediatric Primary Care

The difference between providing services in a traditional outpatient setting and providing services within the medical setting, such as a pediatric primary care clinic, is not simply a setting change. All aspects of care delivery are impacted and

thus require specific training for any behavioral health provider looking to provide services in pediatric primary care. The following section will review training that is necessary for providing effective services in this setting.

Behavior analysts have knowledge in behavior change procedures that could benefit patients who present to pediatric primary care with behavioral health concerns. Specifically, behavior analysts receive training in behavioral principles that are integral to many of the treatments utilized in pediatric primary care. While behavior analysts are well suited to provide services in the pediatric primary care setting because of their knowledge about behavioral principles, applied behavior analysis training alone is not sufficient. Although behavior analysts have an in-depth understanding of behavioral principles that most evidence-based interventions are based upon, they do not receive the training necessary to implement these interventions. Due to its success in the treatment of individuals within special populations, most applied behavior analysis training experiences are specific to applying behavior change procedures to children with autism and developmental disabilities. This training is not sufficient for behavior analysts to implement other evidence-based behavior interventions. Adolescent depression, for example, is a common presentation in the primary care setting (Sterling et al. 2018). Although behavior activation is based on behavioral principles (e.g., reinforcement and punishment; see Kanter et al. 2005 for review), a behavior analytic provider may not have had the training experiences necessary to implement behavior activation effectively with typically developing adolescent patients.

Behavioral health providers working in this setting should be competent with assessing and treating the wide variety of problems that most often present in primary care. ADHD, behavior problems, feeding problems, weight issues, developmental delay, and mood disorders are among some of the most common presenting problems addressed by behavioral health providers working in pediatric primary care (Talmi et al. 2016). Behavioral health professionals who want to deliver services in primary care would need supervision relevant to the above presenting concerns in order to implement evidence-based interventions such as exposure, behavior activation, and parent-management training. More so, given the fast-paced nature of the integrated pediatric primary care setting, evidence-based interventions need to be tailored for delivery in pediatric primary care. This means that providers should not only have knowledge of these interventions, but also know how to implement them in a brief format (see Bruni and Lancaster 2019). Habit reversal, for example, consists of many components. Research has shown that increasing awareness and learning an opposite action are the most essential components of this treatment. While providing the entire treatment protocol in traditional outpatient behavioral health settings is feasible, providers in pediatric primary care implement this treatment in a brief format of the treatment focusing only on these two components (Bruni et al. 2019). By understanding the basic principles that are the responsible for behavior change in evidence-based interventions, interventions could be implemented more efficiently. Cognitive behavioral therapy, for example, is effective for treating depression; however, behavior activation alone has been found to be equally effective on its own, especially among special populations (i.e., pediatrics) (Jacobson

et al. 1996). While psychologists practicing in specialty mental health may have the luxury of implementing a full CBT protocol, in primary care, behavioral health providers need to improve symptoms quickly in order to promote a low-touch high-volume mode of service delivery (Maragakis and Hatzigeorgiou 2018).

Behavioral health providers in the primary care setting are delivering services within the medical model, which requires knowledge about diagnoses, including the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (American Psychiatric Association 2013) and the *International and Statistical Classification of Diseases and Related Health Problems* (World Health Organization 2015). Mental health diagnoses in the primary care setting are used to bill for services and communicate information to other providers. The goal of integrating behavioral health providers into the medical setting is to provide comprehensive, quality care that is more efficient than what can be provided when medical and behavioral health care are provided separately (Kelly and Coons 2012). To meet this goal, it is particularly important that behavioral health providers have knowledge of medical conditions, behavioral health, and how to tailor treatments accordingly. When functioning as a part of the medical team, behavioral health providers working in pediatric primary care must also learn how to effectively communicate with medical providers through means other than documenting a mental health diagnosis. Both face-to-face communication about treatment and adequately communicating information to other providers through shared electronic health records should be addressed in training (Knowles 2009). One aspect of providing care in a medical setting is understanding medication, its uses, potential side effects, and how medications may impact treatment. Behavioral health providers functioning as a part of the primary care team should have enough knowledge to communicate with primary care providers. Because behavioral health providers spend more time with patients, they may have data that could inform primary care providers. With toileting, for example, behavioral health providers may have data to show pediatricians to help determine whether they have prescribed the correct amount of medication administered to address constipation symptoms. With ADHD, behavioral health providers can provide data to determine whether a medication is effective managing inattention, hyperactivity, and/or impulsivity across settings. Because behavioral health services have traditionally operated as their own separate entity, not all behavioral health training adequately prepares a behavioral health provider to work in conjunction with medical providers. Typically, behavioral health providers are trained to write lengthy and thorough notes. In primary care, however, notes should be more succinct so that they are also useful for pediatricians who may also read notes to inform medical care.

Behavior analysts have skills that could also be utilized in other areas important to a developing area of practice such as integrated behavioral health in pediatric primary care. Behavior analytic providers possess research skills that are consistent with quality improvement (Maragakis et al. 2019) and applied research designs (Riley and Freeman 2019). Their knowledge of time-series, single-case, and evaluation design technology has the potential to move the field forward by providing evidence for effectiveness of interventions used in pediatric primary care (Lavigne 2016). Behavioral health providers who can demonstrate treatment effectiveness in

this setting can promote the continued delivery of data-driven evidence-based care for pediatric primary care patients.

## Licensure Issues with Providing Behavioral Health Services in Pediatric Primary Care

There are also systems level barriers to behavioral health professionals providing services in the integrated pediatric primary care setting (Cederna-Meko et al. 2016). There are specific licensing requirements to bill for services that are provided in the primary care setting. Currently, there is no way for a behavior analyst to bill for services in pediatric primary care due to the absence of state-level credentialing that would allow payment from third-party payers and other barriers related to billing (e.g., cannot bill for two services on the same day, low reimbursement for health and behavior codes). Billing practices, however, are constantly evolving as behavioral health professionals become more integrated in the medical setting. Currently, there are options to become licensed as a master's level provider to provide billable services in pediatric primary care, but this varies greatly by state. Licensed clinical psychologists who hold a doctoral degree can bill for behavioral health services they provide in this setting. Therefore, those who are interested in providing services in this setting would need to obtain a degree that would allow them to obtain one of these licensures.

For those who already have a BCBA-D, depending on state requirements, some states allow clinical psychology re-specialization, which permits professionals who already hold a doctoral degree to receive additional education and training to change their specialty. This option would allow behavior analysts to gain necessary additional training and earn credentials that allow them to bill for their services. However, because this option would require taking all of the courses required for a clinical psychology doctorate degree, it would be time consuming and not cost effective. A more efficient option would be to receive training in a program that both teaches students the same behavioral principles while also preparing them to more broadly apply behavioral principles in a medical setting. Currently, there are few clinical psychology master's and doctoral programs that can satisfy both of these requirements, including some that prepare graduate students for dual licensure (e.g., LLP or LP, and BCBA, see Bruni and Lancaster 2019).

## Ethical Considerations for Providing Services in Pediatric Primary Care

Applied behavior analysts are guided by the *Professional and Ethical Compliance Code for Behavior Analysts* (Behavior Analysis Certification Board 2014). Therefore, any board-certified behavior analyst who provides services in the

pediatric primary care setting would need to consider how their ethical code would guide their actions and approach to potential ethical dilemmas around providing services within the integrated pediatric primary care setting. Given that behavior analysts are not regularly integrated in the primary care setting, behavior analysts may find it difficult to adhere to standard 1.03, which states that behavior analysts should maintain competence through professional development. Even though the suitability of behavior analysts in pediatric primary care has been a topic of discussion for some time (Friman and Piazza 2011), there are not many behavior analysts working in pediatric primary care and thus few opportunities for ongoing learning, practical training, and supervision exist in this setting.

While the ethical standard 3.01 states the type of assessment used should be determined by environmental parameters, assessments in primary care will be brief in comparison to settings behavior analysts typically provide services. Behavior analysts working in primary care do not have the time for full functional assessment, direct observation in natural environment, or experimental functional analysis or graphically displaying data. Thus, behavior analysts need to know how to conduct functional assessments that are brief yet still inform treatment.

Behavior analysts might be given referrals from providers that are outside of their scope (2.01); thus behavior analysts would need to ensure they have both breadth in training to provide services to the variety of presenting problems in pediatric primary care and knowledge regarding when to refer patients who may benefit from other services. Additionally, behavior analysts working in pediatric primary care may find it difficult to consult for cases given that few behavior analysts work in this setting.

As discussed in the previous section, however, in order for a behavior analyst to provide services in the integrated pediatric primary care setting, they would need to hold licensure that allows them to bill for services. Thus, those interested in providing services in this setting need to be familiar with other ethical codes and how ethical codes may conflict. While there are of similarities between the Ethical Compliance Code for Behavior Analysts and American Psychological Association (APA) Code of Ethics, discussions regarding these ethical considerations for providing behavioral health services in primary care typically reference the APA ethical guidelines. Providing services in the medical setting is accompanied by daily ethical dilemmas that may only be encountered infrequently in typical outpatient specialty mental health settings.

Compared to typical outpatient specialty mental health settings, behavioral health providers collaborate frequently with the patients' medical team. Collaboration and communication with the medical team require consent but do not require a release of information. As described earlier, behavioral health providers function as a part of the medical team, and, therefore, notes are shared using the same electronic health record to facilitate communication regarding patients' care. Because pediatricians and other medical providers in the health system may read behavioral health notes, there are additional considerations for note writing. Most behavioral health providers are trained to write notes for themselves, whereas in integrated care, it is important for the note to be written with the expectation that other providers will be

reading it (Kelly and Coon 2012). Communication about patient care also occurs outside of the electronic health record through informal curb-side consults or through formal case conferences. To some providers such communication practices would seem to pose problems surrounding issues of confidentiality, which providers in traditional mental health settings deem necessary for establishing a therapeutic alliance. Communication about patient care, however, is necessary for providing behavioral health services in integrated pediatric primary care. Behavioral health providers should be cognizant of differing views regarding confidentiality among health professionals and discern that shared patient information need be for the benefit of the patient and family (Hoffman and Koocher 2018). Disclosure of the limits of confidentiality and existence of shared medical records may be important at the outset of treatment; so patients are aware of who has access to their information and also are made aware of the benefits of coordinated care.

Standard 2.04 states "*psychologists ' work is based upon established scientific and professional knowledge of the discipline*." Because integrated primary care is a new area of practice, there is little scientific knowledge to guide behavioral health providers in terms of treatments shown to be effective when implemented in the medical setting (Maragakis et al. 2018). As described above, the effectiveness of empirically supported treatments is determined by application of the treatment in typical outpatient specialty mental health settings. Thus, behavioral health providers in integrated pediatric primary care are adapting evidence-based treatments to a new context (Koocher and Hoffman 2019).

## Best Practices in Supervision

Any individual who has interest in working as a behavioral health provider in pediatric primary care should have a supervisor who works in the medical setting (Blount and Miller 2009). For all the reasons described, there are skills trainees should acquire that are unique to medical settings and a supervisor who works in traditional mental health settings will not be able to shape the required skills to be successful to practice in pediatric primary care. Supervisors should be familiar with competencies to evaluate trainees. Supervisors should also be knowledgeable about the different models of integrated care that exist in practice (e.g., Primary Care Behavioral Health Model, Co-Location Model, Fully Integrated Approach, and Coordinated Care Approach) to prepare trainees to work in a variety of settings.

## Conclusion

Integrated pediatric primary care is a relatively new area of practice that benefits pediatricians, parents, and children. Because it is new, behavioral health providers are still trying to determine how to effectively provide services and what type of

expertise is needed to effectively implement treatment protocols in a fast-paced integrated primary care setting. Although behavior analysts would need to be more flexible in the application of their treatment protocols and systems level barriers to behavior analysts providing services in this setting exist, an opportunity exists for them to broaden their scope of practice to meet the behavior health needs within pediatric primary care.

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