

A QUALITATIVE VISION OF A QUANTITATIVE WORLD: THE PERCEPTIONS
OF BOARD CERTIFIED BEHAVIOR ANALYSTS AND THEIR CONTRIBUTIONS
TO TEXAS PUBLIC SCHOOLS

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A QUALITATIVE VISION OF A QUANTITATIVE WORLD: THE PERCEPTIONS
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DEDICATION

This study is dedicated to those who have been blessed to serve a child with a disability. This research is for inclusive leaders, advocative teachers, dedicated behavior analyst, loving guardians, and courageous parents. We are in this together! United we are on a quest to learn, grow, and create a better world for our children and students. May this dissertation serve as a step towards a better tomorrow.

ABSTRACT

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To evaluate student discipline in the state of Texas, leaders often rely on quantitative data, primarily the documentation of exclusionary consequences (Texas Education Agency, 2021). There are few professionals trained in the principles of behavior working in public education, therefore, an understanding of their perceptions and experiences could prove beneficial to the field (Syed, n.d.). To capture this narrative, a phenomenological study was conducted to gain insight from six behavior analysts employed in the Texas public school system. Data were synthesized into 10 themes; five themes described the culture of Texas public education including a culture of reactivity, a culture of burnout, a culture of ignorance, a culture of neediness, and a culture of limitations. Four additional themes captured the self-proclaimed identities of behavior analysts working in Texas public schools burnout, valueless, powerless, and hopefulness. The last theme covered behavior analysts' experiences and challenges balancing multiple governing expectations. Viewing data through the lens of radical behaviorism helped to identify systemic concerns rooted in the reactive approach to behavior change still reflected in Texas public schools. The diffusion of innovation theory was used to better understand hurdles in innovation and barriers to momentum that currently impact the effectiveness and acceptance of behavior analytic practices in public education.

Based on the data, recommendations for behavior analysts included consideration of employment in districts where their behavior analytic credentials were acknowledged and supported and where ethical and competent behavior analytic practices were

promoted. In addition, behavior analysts were encouraged to bring awareness to the field of education by discussing their potential contributions to change socially relevant behaviors in K-12. Both district leaders and policy makers were encouraged to contribute to the dissemination of behavioral knowledge by hiring highly qualified staff, providing quality behavioral trainings, developing procedural and policy-based accountability protocols, and increasing fiscal support for behavioral staff, programs, and incentives.

KEY WORDS: Behavior analyst; Texas school, Board certified behavior analyst, Applied behavior analysis, Student behavior; Qualitative; Phenomenology.

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To my children, for all the hours I've spent away from you and time I can't get back, I hope that you've witnessed that passion often requires sacrifices, and perseverance and dedication may be essential to achieve something you believe in. I have been given a

calling to serve those who are less fortunate than I and will continue to fight for a higher quality education for them, just as I would for each of you.

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To all the other individuals with hearing impairments, don't let anyone stand in your way of achieving your dreams. You are wonderfully and perfectly made!

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CHAPTER I

Introduction

Under the Individuals with Disabilities Education Act (IDEA), the federal government of the United States promises an appropriate and cost-free education for each public school-aged student who has a disability (Texas Administrative Code, n.d.). This policy's vague commitment sparks debate as the term *appropriate* implies that the educational curriculum may need to be accommodated, modified, and individualized to promote effective learning (Wrights law, 2009; Duroy, 2016). This provision is not limited to academic growth, as a student's behavioral success is also relevant.

For students to have access to a more equitable learning experience, many will require behavior intervention plans to be implemented. These plans are developed by educators to provide accommodations and supports designed to increase appropriate behaviors and/or decrease inappropriate behaviors. Even with the required behavior intervention plans in place, there were still approximately 67,000 students in Texas who received an in-school or out-of- school suspension during the 2019-2020 school year (Texas Education Agency, 2021). Data from the most recent school year (2019-2020) is the lowest in the past five school years. With any practice, it is critical for campus leaders to reflect on the effectiveness of interventions and procedures and consider how they could refine or tweak their current systems to promote even more success (Bambrick-Santoyo, 2018).

Considering areas for growth, one potential reason for the lack of significant improvement in Texas discipline data could be due to poorly developed and implemented behavior intervention plans. Teachers are receiving little to no support with implementing

evidence-based practices that are embedded in a student's behavior intervention plan (Locke et al., 2016). If behavior intervention plans were being implemented effectively, campuses should see a decrease in punitive discipline assignments. It should be noted that not all students who receive an in-school or out-of-school suspension required a behavior intervention plan; however, many students who received in-school or out-of-school suspensions are often repeated offenders (McElrath et al., 2020). If a student is repeatedly being removed from a general education environment, then the school should consider why the student is being unsuccessful and make changes to the current education setting to promote future success. The effectiveness of many interventions relies on the knowledge and skills possessed by the implementor (Ling et al., 2012). Therefore, another potential barrier is that employers are not routinely implementing best practices during their campus training opportunities (DiGennaro Reed & Henley, 2015). Ling et al. (2012) clarified that traditional staff training models have limited effects or lasting influences on a staff's response to handling challenging behaviors.

As mentioned, teachers are required to implement supports and services that a student would need to be successful (Texas Administrative Code, n.d.); however, this initiative gets problematic when considering barriers faced by teachers, such as student ratios, behavior deficits impeding learning, variability in executive processing, and various student preferences (Kretlow & Helf, 2013). A teacher's and principal's ability to provide what is required in an individualized education plan, is critical to the student's academic and behavioral success. To promote effective teachers and administrators, the Every Student Succeeds Act (ESSA) emphasizes a need for high quality training to be provided to all teachers in public education systems (Grissom et al., 2021). In addition,

under Title II, Part A, funds are awarded to districts to recruit and retain highly qualified teachers, provide professional development, and promote educator growth through mentorship (U.S. Department of Education, 2016). When looking to improve student outcomes, curriculum and professional development are two tools that campus and district administrators can use to promote positive student growth (Danna & Spatt, 2013). Specifically, Nelson and Kauffman (2020) discovered that educators who are trained in the science of behavior analysis were more likely to incorporate positive behavioral supports into their classrooms than teachers who did not have these behavior analytic tools in their repertoire. The implementation of positive behavior supports is a successful approach to school-wide behavior change as it can effectively decrease behavior infractions and behavioral restraints (Bosic, 2018).

A recent study revealed that campus leadership has a statistically significant impact on student achievement second only to the quality of the classroom teacher (Grissom et al., 2021). These findings are primarily due to campus administrators' scope of impact (Grissom et al., 2021). Campus administrators are responsible for the culture and climate of a campus (U.S. Department of Education, 2014). One aspect of cultivating a culture of success is by ensuring that all stakeholders have what they need. Related to training, many teachers reported that they lacked specific training for working with students who have significant behavior deficits (Smith & Smith, 2000). Many special educators reported being required to participate in training that had little to no relationship to the instruction or activities they provided (Shuster et al., 2017). Special educators also reported being left out of important campus initiatives (Shuster et al., 2017).

A substantial need is present for continued learning and training in behavior analytic interventions that will assist teachers in decreasing challenging behaviors and increasing appropriate behaviors (Demchak et al., 2020; Fielding et al., 2013). Campus administrators have a responsibility to provide high quality training to staff that improves student outcomes (Bambrick-Santoyo, 2018). It is the campus administrator's responsibility to develop a culture of professional learners (Marzano et al., 2005), and if teachers feel ill prepared, campus administrators should develop supports for their continued learning. If a leader does not have experience in managing challenging behavior, the principal may delegate that responsibility to another campus staff member like a behavior coach, counselor, or an expert with specific behavioral training.

Statement of the Problem

In this section, I will link campus discipline data to the lack of teacher and leader preparation and effective professional development. Then I will discuss the role of a behavior analyst in implementing principles of behavior in public schools. I will reveal concerns with the limited quantity of trained professionals on campuses and how behavior analysts could have a positive impact on professional development. Lastly, I will reveal the scarcity of literature regarding the shared experiences of these experts in public education.

Despite system reforms and campus behavior intervention plans, 1.2% of the total Texas student population received a disciplinary consequence during the 2018-2019 school year. A teacher's ability to support challenging behavior is often described as one of the most difficult aspects of teaching (Taylor, 2011). Classroom teachers are expected to facilitate rigorous academic instruction while supporting any behavior challenges that

may arise. To develop a plan to support students who engage in challenging behaviors, campus principals and teachers are encouraged to use data-driven instruction to bridge intervention strategies to a specific performance deficit (Bambrick-Santoyo, 2018).

As a result of the inclusive movement, many students with disabilities are being educated in a general education environment with peers who do not have disabilities (Lambert, 2008). Researchers have found that general education teachers are not prepared to teach such diverse populations effectively (Hamman et al., 2013). This situation puts pressure on teachers to master not only pedagogy and instructional strategies but also behavior management techniques. Teachers need to be competent in their ability to implement strategies derived from research-based educational practices. Aspiring educators claimed to be confident in implementing behavior management techniques and classroom management strategies, but preservice teachers expressed discomfort in managing challenging behaviors (Butler & Monda-Amaya, 2016). Further, preservice teachers might be ill equipped to manage challenging student behavior due to inadequate exposure to real-life applications. Flower et al., (2017) determined that evidence-based classroom management techniques are often not present in teacher preparation programs. To ensure data driven instruction, many districts have employed coaches to assist with campus behavior. Instructional coaches assist teachers with managing student behavior (Knight, 2007). Unfortunately, there are no guidelines regarding the training or experiences relevant to behavior analysis required to be deemed a *coach* or *behavior specialist*.

Even though legislation requires schools to have qualified personnel who have been adequately trained to implement evidence-based strategies, the law does not specify

outline how or what training educators must receive. The U.S. Department of Education (2014) recommended that campuses prioritize the use of preventative evidence-based practices such as tiered supports. An example of a tiered system is positive behavioral intervention supports (Sugai & Horner, 2009). The positive behavioral intervention supports framework was developed from applied behavior analysis (ABA) and has been documented to reduce the need for disciplinary consequences by implementing antecedent-based interventions (U.S. Department of Education, 2014). According to Cooper et al. (2020), ABA is a scientific approach to changing socially relevant behaviors. The application of procedures based on behavior analytic principles has been shown to be effective in numerous studies from decreasing significant challenging behavior (Foxx, 1985; Joslyn & Voller, 2020; Mohammadzaheri et al., 2015) to teaching appropriate behaviors (Foran et al., 2015; Hatzenbuehler et al., 2019), and even changing behaviors of an entire classroom of students (Barrish, 1969; Dillenburger et al., 2019; Flower et al., 2014, 2017; Groves & Austin, 2017, 2019; & Joslyn et al., 2014, 2019).

Board certified behavior analysts (BCBAs) are nationally certified professionals who use principles of behavior analysis to change socially relevant behaviors. These professionals have at minimum a master's degree, focused on behavior analytic coursework, and completion of an intense supervised field experience (BCBA Handbook, 2020). In addition, after the completion of all coursework and supervision, a behavior analyst must pass a certification exam. The field of ABA is not limited to working with students who exhibit challenging behaviors; principles of behavior can also be strategically implemented to improve professional learning in adults (Drumb, 2018).

Robinson et al. (2008) conducted a meta-analysis and found that the greatest influence in effective teachers was the quality of professional development. For teachers to implement evidence-based practices, they need to have the knowledge and skills to do so with fidelity. Behavior analysts are trained in many techniques that can assist district leaders with ensuring the fidelity of interventions (Carnett, 2021), understanding function-based outcomes (Stoiber & Gettinger, 2011), and improving teacher (Collier-Meek et al., 2017) and paraprofessional efficacy (Forte et al., 2018). Experts in the field of ABA traditionally use a performance or competency-based approach to professional development (Forte et al., 2018). This approach allows the behavior analyst to evaluate the effectiveness of their training and requires participants to not only understand the presentation but to be able to implement what they have learned.

A behavior analyst has the skill-set necessary to provide behavior coaching to educators. However, many school districts have employed behavior coaches who do not hold the same credential as a behavior analyst. In Texas, a behavior coach is not required to be well versed in ABA. In fact, many school districts in Texas do not have any employed behavior analysts to serve students or staff. According to the Behavior Analyst Certification Board (BACB), only 12% of BCBAs are working in field of education nationally (Syed, n.d.). There are approximately 870 BCBAs serving in education and 130,930 public schools in the United States; therefore, if all documented behavior analysts were at a campus, only 0.6% of U.S. schools would currently be supported by a BCBA (Syed, n.d.). Further, the BACB released aggregated data on the increased employment demands for behavior analysts in Texas, these data highlighted a 12% increase from 2019 -2020 (BACB, 2021). The small number of behavior analysts

working in the educational field relative to the number of districts in Texas emphasizes the importance of investigating the roles they serve and their shared experiences.

This shortage of behavior analysts in public schools has varied negative implications. Researchers have established harmful effects resulting from ill-trained and untrained staff implementing behavior analytic programs (Demchak et al., 2020; Fielding et al., 2013). Appropriately trained staff, ideally a behavior analyst or a school psychologist with intensive training, are necessary to ensure that educators are prepared to support students who exhibit challenging behaviors (Dalton, 2019). It is essential for campus-based administrators and district-level leaders to work together to maximize professional development opportunities that could improve teacher competencies and build professional self-efficacy. The lack of well-developed training to ensure highly qualified staff are implementing evidence-based practices has caused an increase in misconceptions of ABA with the public (Demchak et al., 2020; Fielding et al., 2013). If a campus administrator does not have expertise in managing problem behavior effectively, it is imperative that they branch out to the experts who possess the knowledge of ABA. Further, behavior analysts can also provide training to non-campus stakeholders such as parents (Bagaiolo et al., 2017) to disseminate knowledge from the school setting to the home environment.

In addition to providing high quality evidence-based training, behavior analysts are trained to conduct thorough function-based assessments, and then align and implement evidence-based interventions developed from the results of these assessments (Campbell et al., 2021; Cooper et al., 2020). The quality of the function-based assessment is crucial, as this assessment is the foundation on which treatment options are developed. To better

understand and support behavior analyst in public education settings, a group of nine professionals generated an ethical question hotline to assist with practical dilemmas in the field (Syed, n.d.). Data from these professionals revealed that behavior analysts practicing in schools are often pressured to work with massive quantities of students, which could hinder the effectiveness of interventions and cause concerns with professional ethics (Syed, n.d.). To understand what barriers a behavior analyst may encounter in public education and what recommendations they have for change, it is important to investigate their lived experiences.

Purpose of the Study

In response to the legal requirements of providing evidence-based interventions and the need to provide supports and trainings to teachers and other stakeholders in the principles of behavior, the purpose of this qualitative phenomenology study is to explore and understand the lived experiences of behavior analysts working in Texas public education. It is important to understand how someone trained in the principles of behavior perceives working in public schools. Individuals who are formally trained in the principles of behavior may be able to mitigate several concerns reported in the administration literature and the Texas Education Agency (TEA), such as high-quality professional development, high teacher turnover rates, high rate of alternative disciplinary assignments, and data-driven instruction (Desravines et al., 2016; TEA, 2018, 2019, 2021). Unfortunately, limited studies have evaluated what behavior analysts are experiencing when working in public education (Duroy, 2016). It is essential to add to the narrative of this population of professionals as their experiences could impact on the field of education.

It is worth investigating why there are so few behavior analysts working in the public education settings. Researchers who have investigated the perspectives of behavior analysts have done so to better understand concerns of “inequity and ableism in a system that is required to comply with federal and state laws” (Duroy, 2016, p. 5). Also, researchers have explored the perspectives of behavior analysts on treatment plans to support students with autism spectrum disorders (ASD) (Campbell et al., 2021). Desai-Bhakta (2020) sought to understand why behavior analyst supervisors were leaving the field. After an extensive search of literature, no published studies could be located regarding how behavior analysts perceive their role in Texas public schools. Therefore, the intent of this phenomenological study is to explore how behavior analysts describe their experiences working in the Texas education system.

Conceptual Framework

There are two conceptual frameworks that serve as the foundation of this investigation: (a) radical behaviorism and (b) diffusion of innovation (DOI). Radical behaviorism is the philosophical basis of ABA. It encompasses all behaviors, including those that occur within oneself (Skinner, 1974). ABA describes the scientific approach to changing relevant socially significant behaviors. Diffusion of innovation (DOI) theory will be used to better understand how to diffuse barriers in public education that may be limiting the adoption of ABA into current practices.

A science is a “systematic approach to understanding a phenomenon” (Cooper et al., 2020, p. 7). The concepts that derive from a science can be applied to understanding behavior. “Behaviorism is the philosophy of the science of behavior, basic research is the province of the experimental analysis of behavior (EAB) and developing a technology for

improving behavior is the concern of applied behavior analysis (ABA)” (Cooper et al., 2020, p. 7). John Watson contributed largely to behaviorism by his release of stimulus-response psychology (Cooper et al., 2020). This approach encouraged psychologist to view behaviors as a response to environmental stimuli. B. F. Skinner later released the publication of *the Behavior of Organism* in 1938, and this text was compiled of experimental analysis which classified behavior into two categories: respondent and operant. Skinner conducted laboratory research investigating how behaviors are changed due to alterations in the environment. Skinner coined the term *operant behavior* to describe these behaviors influenced by changes in their environment (Skinner, 1938). Through systematic manipulation, Skinner was able to establish functional relationships between an animal’s behavior and environmental events.

Radical Behaviorism

Skinner coined the term *radical behaviorism* to broaden the previous definition of behaviorism by including behaviors that are unseen (Skinner, 1974). Radical behaviorism acknowledges private events or covert behaviors that happen within the body of an individual. Skinner clarified that what is felt by an individual or introspectively observed is the observer’s encountering of a stimulus (Skinner, 1974). Skinner claims that behaviors are a function of environmental circumstances and context (Skinner, 1974 p. 176). These functional relationships formed between the environment and behavior, and these relationships are the building blocks of many principles used to change human behavior. This theory is fundamentally imperative to understanding ABA. In 1949, these principles were applied by Fuller to change the behaviors of a young adult with

significant cognitive and physical limitations (Fuller, 1949). This application sparked the curiosity of further applying principles of behavior to change the behaviors of humans.

Applied Behavior Analysis (ABA)

Baer et al. (1968/1987) organized seven dimensions to describe the essence of ABA. These dimensions have been outlined as: (a) applied, (b) behavioral, (c) analytic, (d) technological, (e) conceptually systematic, (f) effective, and (g) generalizable. The term applied suggests the behaviors targeted for change are socially significant and relevant to the individual's life (Baer et al., 1968). Behavioral science has a few parameters that separate it from other theories and philosophies. In ABA, the behaviors targeted for change must demonstrate either a behavioral excess or deficit. Behaviors that are targeted for change must be measurable and observable. The analytic characteristic of ABA implies that behavior analysts establish a functional relationship between behavior and recommended interventions for behavioral change (Baer et al., 1968). Functional relationships can be investigated through the manipulation of independent variables to understand their impact on the dependent variables. The term technological emphasizes the need for behavior change systems to be descriptive and replicable. When describing behavior change, ABA is conceptually systematic, relying on the principles of behavior to describe events and interventions (Baer et al., 1968). There are two forms of effectiveness considered for a behavior change through ABA: the effect of the independent variable on the target behavior and the social impact of this change. The last characteristic of ABA described by Baer et al. (1968) was the ability to generalize the target behavior change over time, stimuli, responses, and/or environments. These seven characteristics serve as the foundation for understanding ABA.

Diffusion of Innovation (DOI) Theory

The science of behavior dates to Watson's stimulus-responses behaviorism in the early 1900s and the experimental analysis of Skinner and researchers in the 1930s (Cooper et al., 2020). Even though behavior analytic approaches to behavior change in humans have been practiced since the late 1960s, its punitive and aversive history has caused many skeptics (Leaf et al., 2021). One might question, if ABA has been around for over 60 years, why is it not required to be taught in all teacher preparation programs (Young & Martinez, 2016)? There are many socially significant behavioral excesses and deficits that could be changed in public schools using the principles of behavior. Currently public schools have required the implementation of ABA through campus wide positive behavior initiatives and support as well as behavior intervention plans. However, ABA is typically not generalized to professional development or teacher growth. The lack of progression and integration into public education has led me to consider the diffusion of innovation (DOI) theory. E. M. Rogers developed DOI in 1962 and it is now considered one of the pioneer social science theories. "An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 12).

Although ABA is not a new concept, it is emerging in the field of education and relevant to changing student and educators' behaviors. Sahin (2006) used DOI to understand the integration of technology into the classroom. He explained that the individual technology may not be new but could be new to the classroom environment or the educators using it. This concept also applies to the implementation of ABA practices, which have been supported by over 60 years of research yet have been slower to develop

traction in public education. There are four key factors in DOI: innovation, communication channels, time, and social systems. Once an innovation has been introduced, it can be adopted or rejected (Rogers, 2003). Rogers then described the process of social acceptance as, “the process in which an innovation is communicated through certain channels over time among the members of a social system” (p. 5). “It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system” (Sahin, 2006, p. 1).

When an innovation or novel approach is taught, there are five variations in adopters: innovators, early adopters, early majority, late majority, and laggards. There are five factors that can alter the likelihood of an innovation being adopted (Rodger, 2003). The first factor is a relative advantage. Relative advantage is viewed as how well the innovation, such as ABA, is seen as a better approach to behavior change than what had been previously implemented. A second factor is compatibility or how the implementor can relate to the intervention or procedure and is valued (Rodgers, 2003). How do educators feel about utilizing ABA in the classroom or on a campus? The third variable is complexity. This factor relates to the extent that the innovation is practical. Just because an intervention is effective does not mean that it can translate into a natural setting with the same outcomes. The next factor, tribality, is the opportunity to implement innovation into practices prior to committing. This step ensures that the implementor can implement the intended intervention or skill as it was designed. The last factor is observability or the ability to see the effectiveness of the innovation (Rodger, 2003).

Kamau (2014) conducted a study using the DOI theory to understand barriers that administrators in public education encounter as they go about adopting, implementing, and maintaining ABA-based treatment approaches for students with autism. The findings delineated many recommendations for change: fiscal increase for ABA programs, more collaborative training opportunities, and an increase in campus leader's ability to support special education teachers. Although this theory has been investigated in respects to supporting students with autism, ABA is not limited to this subpopulation and further investigation is warranted.

Research Question

With limited research available on the perceptions of behavior analysts and no known study on those employed in the state of Texas, it is critical to capture data on the perspective of behavior analysts working in Texas public education. With the quantitative documentation of in-school suspensions and out-of-school suspensions being the primary data source on students' behavior in Texas, these data do not explain why students are not making progress or which programs and supports are effective. The research question that guided this study was: What are the perspectives of behavior analyst working in Texas public school systems. The qualitative data highlighting the experience of behavior analysts can help campus administrators and policy makers better understand what behavior analysts are seeing, hearing, and living while working with public school students in Texas.

Significance of Study

Too often policy requires educators to perform a specific obligation, like providing evidence-based instruction, yet districts may not have the resources or the support to ensure these initiatives are carried out. Staff working with students who have disabilities are required to consider the use of evidence-based practices (Texas Education Agency, n.d.-a) yet districts and campuses leaders do not always have the knowledge of behavioral science to promote staff competency. With increased court cases revealing the knowledge deficits of educators, it is critical that educational leaders learn from experts in the field of behavior. Literature on the perspective of behavior analysts in public school systems could shed light on systemic issues addressing free and appropriate education to students as well as potential avenues to expand the field. This untold perspective could contribute to an understanding of how to provide a more equitable learning environment for students with behavior deficits. This study may also highlight needs in which the skillset of a behavior analysts could be expanded outside of supporting challenging student behavior in Texas public schools.

Understanding a behavior analyst's experiences could aid policymakers with consideration of adopting standards for professional development. Standards could increase the quality of trainings and require initial focus on student outcomes (Darling-Hammond et al., 2017). With policymakers working to ensure that there are high-quality well-trained teachers, district and campus staff could prioritize intentional professional learning opportunities to increase student outcomes. The results of this study could impact district administrators, as they learn more about the value of hiring behavior analyst. Further, data could reveal a need for more employees to be certified as behavior

analysts to promote treatment fidelity in the classroom. High quality training could ensure that programs are implemented as designed, thus directly impacting student success. Decreases in problem behavior could influence a teacher's self-efficacy and allow for a more peaceful and enjoyable teaching experience.

Definition of Terms

For this investigation, the following terms are defined. These terms are consistent with the vocabulary used in behavior analytic literature.

Applied Behavior Analysis. Applied behavior analysis (ABA) is defined as “the science in which tactics derived from the principals of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variables responsible for behavior change” (Cooper et al., 2007, p. 20).

Behavior. The term *behavior* is defined as: “The activity of living organisms; human behavior includes everything that people do” (Cooper et al., 2007, p. 16).

The Behavior Analyst Certification Board, Inc.® (BACB®). The Behavior Analyst Certification Board (BACB) is described on their website as follows:

A nonprofit corporation that was established in 1998 to meet professional certification needs identified by behavior analysts, governments, and consumers of behavior-analytic services. The BACB's mission is to protect consumers of behavior-analytic services by systematically establishing, promoting, and disseminating professional standards of practice (BACB, 2022, para. 1).

(BCBA®). According to the BACB (BACB, n.d.-a), a BCBA is a graduate-level certification in behavior analysis.

Assumptions

When conducting interviews with behavior analysts the following assumptions were made: (a) It can be assumed that the participants are sharing their truth as they recall past experiences working in public education; (b) It can be assumed that the participants will report these self-evident truths honestly to the best of their abilities; (c) It can be assumed that these professionals are working within the boundaries of their competence as required by the Ethics Code of Behavior Analysts (BACB, 2022); (d) It can be assumed that these professionals are maintaining their competence through ongoing professional development as required to renew their certification; (e) It can be assumed that these behavior analysts are well versed in the principles of behavior; and (f) It can be assumed that all participants have met the requirements as outlined by the BACB and hold a current certification.

Limitations

This research will be focused on understanding the shared experiences of a small population of behavior analysts. As such, participants will be limited to a small number. In qualitative research, I am not aiming to develop generalizable data; instead, I am striving to capture real life experiences that can explain a phenomenon. The participant pool was narrowed to the state of Texas, which could reflect biases of that area. To improve the study's validity, participants will continue to be selected until data saturation has been met.

With qualitative inquiry, there is a risk of the participants providing false data, which can be a limitation. I acknowledge vocal verbal behavior as a self-reported measure with respect to experiences and could have error. Communication, including

answering interview questions, is a behavior which is subject to environmental contingencies. Therefore, it will be necessary to ensure limited reinforcement on my part following their responses. By ensuring these data are confidential and keeping participants' identities secure, participants may be more likely to speak truthfully and openly.

My own experience could pose a limitation. Having worked for 13 years in public education primarily with students who exhibit challenging behaviors, I am aware that I bring my own history of experiences and perceptions. I am aware that as a practicing behavior analyst, I present biases that align to understanding student and staff behavior through a behavior analytic lens. This study will utilize the strategy of Epoche to promote accuracy of the analysis and the removal of individual biases.

Delimitations

One delimitation of this study is that I am focusing only on the shared experiences of BCBAs. There are many districts who employ behavior specialists or interventionists who support student behavior, but do not hold the credentials of a behavior analyst. Only employees that hold board certification as behavior analysts will be asked to participate in this study. In addition, this study is limited to behavior analyst working in the state of Texas.

Organization of the Study

In this chapter, I have presented a statement of the problem regarding providing equitable learning environments for student who exhibit challenging behaviors, and I discussed the lack of data on the perceptions of behavior analysts working to support students in public education. Understanding the experiences of behavior analysts is

necessary to better understand how to support students and staff in the Texas educational settings. I have also highlighted the conceptual framework and important terms that are fundamental in understanding this study. In addition, I have shared the assumptions, limitations, and delimitations of this research. The next chapter will review the literature related to (a) current discipline concerns; (b) the history of behavioral legislation; (c) the competency deficits of staff supporting students who engage in challenging behaviors; (d) the roles of teachers in supporting challenging behavior; (e) campus administrator in maximizing teacher compacity and ensuring appropriate discipline assignments; (f) ABA in public education; (g) the roles of behavior analysts in public education settings; and (h) concerns with limited data addressing the shared experiences of practicing behavior analysts in public education. Following the literature review, the methodology will be discussed in Chapter III and will include the research questions, research design, the role of the researcher, participants, instruments, data collection, data analysis, trustworthiness, credibility, and ethical considerations. Chapter IV will reveal the results, and Chapter V will provide a detailed discussion of the results, and recommendations for employees and for future research.

CHAPTER II

Review of Literature

To compile literature for this investigation I used the EBSCOhost search engine. I selected databases that store educational and behavioral literature including Education Full Text (H.W. Wilson), Education Source, ERIC, and Psychology and Behavioral Sciences Collection. After selecting the listed databases, I searched for *behavior analyst* and *perspectives*. I filtered for current literature from 2011 to 2022 that was peer reviewed and arrived at 17 articles, however only 3 met criteria. The time frame was narrowed to the most recent 10 years unless referencing seminal discoveries or theories, to ensure the most accurate and relevant data were reviewed. The abstracts were reviewed to gather only data that applied to this topic. Later, given the same parameters new search terms were explored and were *applied behavior analysis (ABA)* and *public schools or education* this generated 24 articles. To fill in the gaps, I investigated current practices used in public education that are grounded in the principles of behavior. Also, I researched historical and current education data from the Texas Academic Performance Report (TAPR), Texas Education Agency (TEA), the Behavior Analyst Certification Board (BACB) and other legal guidance documents. Lastly, I searched through my personal collection of behavior analytic literature compiled over 13 years of working in the field of special education.

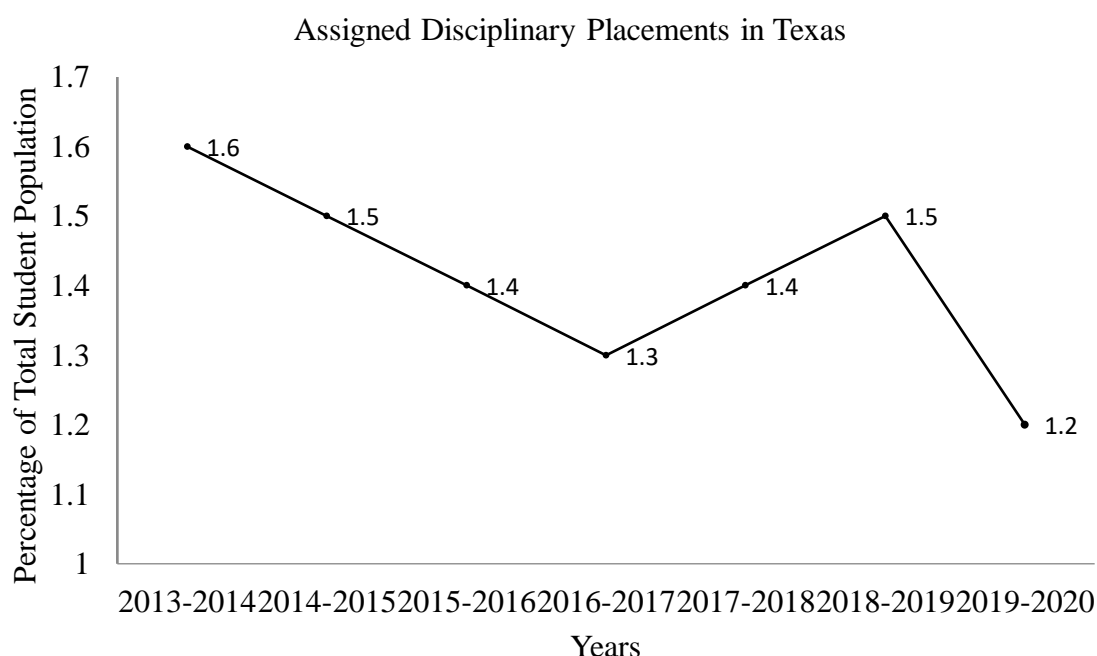
Challenging Behavior and the Requirements of the School District

The Texas Academic Performance Report (TAPR) revealed that Texas serves nearly five and a half million students through the public education system. It is noteworthy that discipline data reports are two years behind the current school year;

therefore, the most recent reports are from 2019-2020. These data indicate that 1.2% of the total student population received a disciplinary consequence during the school year (Texas Education Agency, 2021), translating to 66,833 students who were educated outside of the general education classroom due to assigned discipline consequences.

Figure 1

Assigned Disciplinary Placements in Texas



Despite current campus initiatives, the number of students receiving assigned disciplinary consequences is still high. In the past 6 school years, data points have ranged from 1.6-1.2%; however, these data have not demonstrated a consistent downward trend (Texas Education Agency, 2016, 2017, 2018, 2019, 2020, 2021). The most recent data are the lowest in the past 6 years. It is important for educators to reflect on what practices support this reduction. Also, public educators need to consider what barriers are preventing greater results. To understand current educational practices, it is critical to trace the policy guiding educational reform for students with behavior concerns.

Policy Related to Supporting Students with Behavioral Deficits

Krejsler (2018) described Texas educational legislation as state law evolved from a “fear of falling behind” regime and dated back to the passing of the Elementary and Secondary Education Act in the 1960s. Krejsler (2018) shared that following the report of *A Nation at Risk* released in the 1980s, Texas legislation fought to decrease civil rights injustices and better understand the effects of economic status on education. Fighting for the rights of individuals with disabilities continues to be a challenging pursuit, as what a student needs to be successful can be subjective.

After Public Law 94-142 passed, later evolving into the Individuals with Disabilities Act (IDEA), Texas adopted legislation providing a free appropriate and public education (FAPE) for students with disabilities. Under IDEA, the federal government of the United States advertised an appropriate and cost-free education for each public school-aged student with a disability. The term *appropriate* implies that the educational curriculum may need to be accommodated, modified, and individualized to promote effective learning (Wrights law, 2009). Public educators are required to consider what a student would need to be successful and provide an equitable learning experience. This initiative can be challenging given the reality of teacher to student ratios, behavior deficits impeding learning, individual barriers in executive processing abilities, and student preferences. Contributions to legislation are continuously changing and evolving to address this promise.

Since the 2000s, three phases of education policy have impacted the role of leadership at a campus: the No Child Left Behind (NCLB) act of 2002, the Race to the Top of 2009, and Every Student Succeeds Act (ESSA) of 2015 (Grissom et al., 2021).

The commonality of all three policies is grounded in a progressive focus on student achievement as measured through state accountability assessments. Starting with NCLB, this policy significantly impacted campus leadership as it relates to the data analysis of subpopulations (Grissom et al., 2021). Through this analysis, districts and states can identify inequalities and disproportionalities including assigning alternative discipline assignments. The competitive grant programs that were available to districts through the American Recovery and Reinvestment Act, Race to the Top caused states to adopt rigorous curriculum standards and implement strenuous teacher evaluation systems (Grissom et al., 2021). To ensure high quality teachers and leaders, ESSA further emphasizes a model for training and development of all teachers and students in public education systems (Grissom et al., 2021). Under Title II, Part A, funds are awarded to districts to recruit and retain highly qualified teachers, provide professional development, promote educator growth through mentorship, and reduce class size (U.S. Department of Education, 2016). Methods of behavior management have also changed from a constructivist and mentalistic approach to a behavioral approach.

Behavior Analysis

There are four sectors of behavior analysis; behaviorism, experimental analysis of behavior, applied behavior analysis, and service delivery (Cooper et al., 2020). Behaviorism is a scientific approach to understanding how and why behaviors occur. Originally, Watson (1924) theorized that behaviors occurred as a response to the presentation of an antecedent stimulus. The experimental analysis of behavior began when B. F. Skinner published *the Behavior of Organism* in 1938. This text complied seven years of experimental analysis conducted with animals. Skinner believed that all

behaviors occurred in relation to the environment. Skinner classified behavior into two categories: respondent and operant (Skinner, 1938). Respondent behaviors are reflexive behaviors that occur as an involuntary response to the environment (Skinner, 1938). Skinner coined the term *operant behavior* to describe the behaviors influenced by stimulus changes in the past (Skinner, 1938). Skinner noted that behavior either increases or decreases based on the history of consequences that followed these behaviors (Skinner, 1938). Skinner later adopted the term radical behaviorism to broaden the previous definition of behaviorism by including all types of behavior, even those that are unseen, into the conceptual analysis (Skinner, 1974). Radical behaviorism is the philosophical basis of applied behavior analysis (ABA). ABA is a scientific approach to behavior change, developed from the principles of behavior, that are designed to aid in behavior change systems (Cooper et al., 2020). ABA is composed of fundamental principles necessary for the implementation of evidence-based practices aimed at transforming challenging behaviors.

A behavior analyst is a person who investigates a functional relation between a behavior and its environment and then uses principles of behavior to change socially relevant behaviors (Behavior Analyst Certification Board, 2022). It should be noted that there are many behavior analysts who do not work within an applied social setting, that may work in the field of research, or with animals. In addition, there are many students who have published research who have not completed a behavior analyst certification (practicing graduate students). These researchers have explicit training in the field of ABA and/or may be supervised by a behavior analyst supervisor. In this paper the term behavior analyst encompasses those individuals who are seeking a degree to become a

BCBA, those who are undergoing supervision, as well as those who have met the credentials of a BCBA. For this study, I have included research conducted by behavior analysts when appropriate.

A Function-Based Approach to Behavior Change Systems

To address challenging behavior, it is important to understand why the behavior is occurring. This approach to behavior-change systems is different from a topography-based approach (Hong, et al., 2018). In a topography-based approach, behavior is described through overt features, such as, what the behavior looks like. Describing the physical attributes of a behavior is important, but it is also limiting, as it does not describe why a behavior occurs (Hong, et al., 2018).

Skinner (1938) demonstrated that by altering consequences that followed a behavior, a behavior analyst could increase or decrease a target behavior. Behavior analysts are interested in the function of the behavior because it explains why a behavior occurs and allows behavior analysts to address the maintaining variables. For example, the function of hitting may vary from individual to individual; a student could hit a teacher to avoid or escape from a demand, or to gain access to a desired item.

In a landmark study by Iwata et al. (1982;1994), researchers tested hypothesized functions of behavior by strategically applying or withholding reinforcement that was predicted to maintain the behavior. This study on functional relations demonstrated a process of evoking or reducing target behavior through antecedent and consequence manipulation. These analyses have been classified as an experimental functional analysis and require specific training to ensure appropriate implementation. Behavior analysts

cover these trainings in their course sequence and are qualified professional to implement these procedures.

The full process of identifying a behavior's function is known as a functional behavior assessment (FBA) (O'Neill et al., 2015). An FBA consists of a series of assessments conducted to understand environmental contingencies that maintain a target behavior (Ala'i-Rosales, et al., 2018). During this assessment there is a combination of indirect assessment tools and direct observations of the target behavior to generate a hypothesized function of the behavior (Hanley et al., 2003). An FBA can include a functional analysis but is not always necessary. Knowing what environmental variables precede a behavior and follow a behavior allows for the establishment of alternative contingencies to produce desired outcomes. When researchers evaluated the efficacy of functionally aligned interventions versus topography-based interventions, they noted that functionally aligned interventions were more successful in altering problem behavior (Newcomer & Lewis, 2004). Selecting between a topography-based or functionally based approach is no longer an option for teachers of students with disabilities in public schools. The Individuals with Disabilities Education Act (IDEA) was amended in 1997 and required behavior intervention plans to be developed from an FBA (Dragow, & Yell, 2001). This regulation requires an FBA to be conducted to determine a hypothesized function prior to recommending interventions.

Campus-Wide Initiatives for Behavior Change

The Positive Behavioral Intervention and Supports (PBIS) framework was derived from the principles of behavior to transform a school's social culture by the implementation of a three-tiered system of supports (Horner & Sugai, 2015). These

varied levels of support offer a structured increase in intensity and individualization based on need (Horner & Sugai, 2015). The first layer, Tier I instruction, captures a school-wide establishment of high expectancies in academic rigor as well as explicit social expectations. A well-established Tier I instruction will positively impact approximately 80% of the overall population, but the remaining students will require the additional implementation of evidence-based practices and supports as they progress the upper layers of Tier instruction: Tier 2 and/or possibly Tier 3 (Horner & Sugai, 2015).

In the secondary prevention or Tier 2 phase, supports are added to the Tier 1 supports. There is an increase in intensity of data collection and the addition of new evidence-based practices for supporting behavior. If the student is still unsuccessful, they may progress again to an even more frequent and intense system of support in Tier 3 (Horner & Sugai, 2015).

These tertiary preventions are often individualized and based on an FBA. Individualized behavior plans are then generated to address functionally relevant interventions to increase appropriate behaviors or decrease inappropriate behaviors. The implementation of PBIS has been documented to reduce the need for disciplinary consequences by implementing antecedent-based interventions (U.S. Department of Education, 2014). This evidence-based three-tiered framework is designed to enhance data collection systems and practices to improve student outcomes (Center on PBIS, 2021). Bradshaw et al. (2012) shared that PBIS is being implemented in over 16,000 U.S. schools. After the implementation of PBIS, researchers noted a decrease in office discipline referrals and suspension over four years of data (Bradshaw et al., 2012). Students who attended a school that implemented PBIS were 33% less likely to engage in

inappropriate behaviors that warranted a discipline referral (Bradshaw et al., 2012). Further, Fogt and Peripavel (2002) revealed that if challenging behavior could be supported through PBIS, campuses were less likely to engage in restraint or seclusion practices.

Requirement of Evidence-Based Practices and Behavior Management

As of November 11, 2007 (32 TexReg8129), the Texas Administrative Code included the uses of evidence-based practices for teaching students with ASD and for supporting students with challenging behaviors (Texas Administrative Code, n.d.). According to the Texas Education Agency's 2018-2019 Special Education Report, in Texas 71,951 students received special education services under the eligibility condition of autism spectrum disorders (Texas Education Agency, 2021). Each student in special education has an individualized education plan (IEP) that is unique to them.

If a student has been diagnosed with autism spectrum disorders in the state of Texas, and in need of special education services, the IEP team must consider strategies outlined in the Texas Regulations (TAC 89.1055) commonly referred to as the *Autism Supplement*. The 11 strategies that must be considered during a student's IEP meeting include: extended educational programming, daily schedules, in-home parent-training or viable options to assist with social and/or behavioral training, positive behavior support strategies, transition planning, suitable staff-to-student ratio, communication interventions, social skill intervention, professional educator or staff support, and teaching strategies based on peer reviewed evidence-based practices (Technical Assistance, n.d.). All 11 strategies are not required to be implemented; however, they must be considered. In an IEP committee meeting, special education teachers are

responsible for explaining which strategies and recommendations best promote student progress towards their annual goals. Although this policy raises the bar on teacher efficacy, the implementation of this legislation requirement is poorly organized (Dalton, 2019).

To assist with understanding the requirements of the Autism Supplement, 19 of the 52 states in the United States have further defined the state-wide expectations: Texas is one of these states. The Texas commissioner released a 16-page, side-by-side guidance document to address the components required under the Autism Supplement (Technical Assistance, n.d.). This support document lists examples of strategies including discrete-trial training, visual support, ABA, structured learning, augmentative communication, and social skills training (TEA, n.d.-a). This document reiterates that schools are also required to consider strategies based on evidence-based practices to the *extent practicable*. Unfortunately, when suggesting that schools consider strategies with research-based educational programming practices, the Commissioner's Rules in Texas use verbiage such as *to the extent practicable* and *when needed*. The addition of these words dilutes the language from a strict requirement to an option (Dalton, 2019).

Often students will require the implementation of evidence-based strategies as outlined in their IEP. For an IEP using evidence-based strategies to be implemented with fidelity, the educators working with the student may need additional training. Teachers are now required to balance the demand of teaching academic content, manage class behavior, and provide each student's accommodation (Kilanowski -Press et al., 2010). This level of multi-tasking requires intentional preparation. Students' needs could exceed academic content. They could require assistance with skills to think critically, solve

challenging problems, communicate effectively, collaborate with peers, and guide their own learning (Darling-Hammond et al., 2017).

Teaching students with disabilities is not only the job of special educators. With inclusive practices focused on students with disabilities receiving services in their least restrictive setting, many students with disabilities are now being educated in general education classrooms with peers their age who do not have disabilities (Vaughn et al., 1996). Therefore, both special and general educators need to possess a more refined skill set when working with this population of students (Kilanowski-Press et al., 2010). Special educators are also not the only staff members who must display an understanding of the strategies recommended by the IEP team; any professional who is educating the student could be required to implement evidence-based strategies (Kilanowski-Press et al., 2010).

General education teachers may not be prepared to instruct students with disabilities in inclusion settings without additional training or support (Hammaun et al., 2013). This situation puts pressure on teachers to master not only pedagogy and instructional strategies but also behavior management techniques that are evidence-based. Educators can no longer focus merely on the delivery of academic curriculum; they must also ensure that behavioral accommodations and interventions are in place and implemented with fidelity to ensure all students have access to an equitable education. Educators need to be competent in their ability to implement strategies based on peer reviewed, research-based educational practices.

The implementation of evidence-based practices is not marginalized to students in special education. It is imperative that educational administrators see the value of

evidence-based practices for all students who need them. Since most students with disabilities have behavior intervention plans that incorporate evidence-based practices to mitigate their engagement in challenging behaviors, the progression of policy is more apparent in the field of special education. Despite the requirements of public policy, there may be barriers to implementation of evidence-based practices in public school systems. Scientifically based research can be defined in Section 9101(37) of the Elementary and Secondary Education Act (revised from NCLB, 2002) as “research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs” (U.S. Department of Education, 2007, p. 2). The U.S. Department of Education claims that peer-reviewed research typically refers to research that is reviewed by knowledgeable independent reviewers who can attest to the quality of the information. To implement interventions and strategies, educators will need to possess specific skills, which may require additional trainings.

Freeman et al. (2014) confirmed that many state policies require teacher preparation courses to address evidence-based classroom management interventions. These researchers examined state policy and determined how many preservice teacher preparation programs included researched-based interventions. The researchers randomly selected 18% of traditional teacher preparation programs totaling 228 selected for review. These researchers suggested that preservice teachers might be ill equipped to manage challenging student behavior due to inadequate exposure to content. Research-based classroom management was only required in 28 states’ teacher preparation programs. Results were that behavior management was addressed more thoroughly in special

education programs than in general education programs. Most teacher preparation programs generated a course to address behavior management, yet only 60% covered evidence-based practices (Freeman et al., 2014).

One concern noted in a review of literature is the discrepancies between commonly recommended behavior management techniques and the evidence of their effectiveness. Alter and Haydon (2017) conducted a literature review to identify components of classroom rules that are commonly recommended by secondary resources. Researchers conducted an analysis to determine which frequently recommended strategies had empirically based evidence. These researchers uncovered that most strategies recommended by secondary resources have little to no evidence to back-up their effectiveness (Alter & Haydon, 2017). Kazdin et al (2000) also found that out of 550 claimed interventions for children, very few had been empirically evaluated.

It is likely that campus administrators will witness an increase in parental involvement and requests for students to receive evidence-based practices due to the outcome of the U.S. Supreme Court in *Endrew v. Douglas County* (Hurwitz et al., 2020). School administrators have been encouraged to prioritize behavior management that impedes academic gains. With IEPs developed to ensure annual adequate progress, campus principals will need to monitor progress to avoid litigious situations. In numerous court cases, hearing officers are ruling in favor of parents due to school districts failing to implement positive behavioral supports appropriately (Stoiber & Gettinger, 2011). Well trained educators who are cognizant of procedural integrity decrease the likelihood of the district losing legal cases (Stoiber & Gettinger, 2011). As a campus leader it is imperative

to understand a teacher's role in behavior management and ensure that all educators have the skills necessary to fulfill these demands.

Teachers' Roles in Behavior Management

To understand the severity of the need for behavior support in public education, it is important to reflect on current campus dynamics and the roles and responsibilities of public-school employees. Teachers have an overwhelming task of ensuring all students have what they need to receive equitable learning opportunities. I will outline the roles of the teacher as well as highlight disparities in teacher preparation programs. Then I will cover literature on teacher perceptions of managing challenging behaviors, as well as their experiences with professional development.

Preparation Programs and Challenging Behavior

When preparing to become a special education teacher in Texas, candidates must pass two certification examinations: Special Education EC–12 and Pedagogy and Professional Responsibilities (PPR); in addition, special educators must complete their educational preparation program (Texas Education Agency, n.d. -b). Some researchers argue that these exams do not prepare educators to manage the challenges of difficult student behavior. Benz (2019) stated that to improve student outcomes in Texas, changes are needed in the preparation and assessment of special education teachers. As educators, it is important to select interventions and develop instruction from an evidence-based practice, yet novice teachers are not demonstrating adequate skillsets to ensure this expectation is met (Hart & Malian, 2013). The inclusion movement which encouraged the instruction of students with disabilities in a general education classroom, has created a greater need for highly qualified teachers, not only special educators, but also general

educators to instruct students with challenging behaviors. It is important to investigate how higher education is preparing aspiring educators to meet these challenges.

Oliver and Reschly (2010) evaluated the content of teacher preparation programs on their practices related to inclusive students who have emotional and behavioral disorders. Course syllabi from 26 institutions of higher education were analyzed for content and application of learning. Researchers noted that 27% of teacher preparation programs included a course targeting classroom management and the remaining programs taught these skills distributed over various courses throughout the program. Oliver and Reschly (2010) determined that most course syllabi focused on behavior reduction strategies with less emphasis on antecedent interventions. This reactive approach is concerning because it allows for problem behavior to occur before strategies are implemented.

Flower et al. (2017) investigated the curricula of teacher preparation programs covering behavior management. In this investigation, researchers used a survey to gather data from 74 programs including college/university programs and alternative certification programs. Researchers discovered that 87% of teacher preparation programs covered universal methods, 57.59% addressed increasing appropriate behaviors, 52% included behavior reduction strategies, and 54% enclosed behavior assessments. Further, they noted that preservice teachers were not provided with enough research-based interventions to prepare them to deal with the challenging behavior concerns that are prevalently reported in school systems (Flower et al., 2017). It is alarming to consider that over 40% of preservice programs were not addressing increasing appropriate behaviors. By not identifying functionally appropriate replacement behaviors, teachers may replace one behavior, but then a new form of that behavior may emerge.

Hart and Malian (2013) conducted a statewide survey to evaluate how prepared special education teachers are in educating students with autism spectrum disorders. One focus of the survey was on the university and college roles in preparing teachers. A need for more practical experience and focused coursework on behavior management was recognized by novice teachers. Not only were teacher preparation programs required to link coursework to the standards issued from the National Council for Exceptional Children, but these programs also need to align with what the state agencies indicate as evidence-based interventions (Hart & Malian, 2013). From the results of the survey, researchers found a need for continued education on characteristics of autism spectrum disorders and research-based practices when working with students with autism spectrum disorders. After being taught effective interventions, preservice educators need to engage in direct classroom-based supervision and implementation of these practices with feedback (Hart & Malian, 2013).

It is also valuable to investigate how teachers describe their lived experiences regarding handling student behavior. Butler and Monda-Amaya (2016) investigated how preservice teachers felt about managing challenging students' behaviors and conceptualizing the teachers' role in deescalating or preventing problem behaviors. Researchers discovered that preservice teachers could highlight their influence on either exacerbating problem behavior or defusing it. Participants then rated challenging behaviors based on the difficulty level of managing these behaviors in the classroom. Butler and Monda-Amaya (2016) established that rating behaviors in order of severity was consistent with physical aggression and physical altercations being the most challenging behaviors to manage. In addition, aspiring educators claimed to be confident

in implementing behavior management and classroom management strategies but were not comfortable handling challenging behaviors (Butler & Monda-Amaya, 2016). This outcome could be due to teacher preparation programs not addressing evidence-based techniques to support students who are engaging in challenging problem behavior.

Conderman et al. (2013) also conducted a survey to capture the perceptions of newly graduated special education teachers on their college preparation program. In the first component of the survey, perceptions of preparation and confidence were examined. Contradictory to Butler and Monda-Amaya (2016), most preservice educators felt prepared and confident in managing students' behavior; yet participants indicated a current need for continued education in implementing evidence-based methods. It is important to mention that despite the self-report of confidence, there was not a measure of fidelity in place to ensure that methods were implemented correctly. Through open-ended inquiry, researchers uncovered those participants valued the practicality of field experience when learning how to manage problem behaviors (Conderman et al., 2013). Participants also emphasized the benefit of behavior management courses in preparing them for a successful first year of teaching. Many candidates reported a need for more coursework in working with low incidence populations. Young and Martinez (2016) urged universities to cover the basic behavior principles of behavior in teacher preparation programs.

Behavior Concerns in the Classroom

Regarding behavior management, there are a variety of philosophies that guide decisions in the field of education. Through a constructivist lens, if a student fails to acquire a new skill, then the blame falls on the student (Fielding et al., 2013). From a

behaviorist perspective, if a student is unable to acquire a new skill, then it is the educator's job to change their instructional methods and strategies (Fielding et al., 2013). Educators have the potential to drastically change the culture of a school and promote student success by using a behavioral approach and implementing strategies and interventions that have been documented to be successful (Fielding et al., 2013). Researchers encourage the use of research-based practices to support challenging behaviors.

Trump et al. (2018) claimed that the basics of ABA complemented any educational pursuit because of its client (student)-centered approach. Young and Martinez (2016) argued that teachers who are skilled in the basics of ABA are more prepared to support students with challenging behaviors. Teachers with experience in ABA and FBA understood that despite diagnoses or previous exposure to trauma, teachers could alter contingencies in the classroom to promote appropriate behaviors while decreasing undesired behaviors (Young & Martinez, 2016). Unfortunately, teachers, paraprofessionals, instructional leaders, and even school psychologists demonstrate an existing training gap in knowledge of ABA and demonstrate a need for professional development in evidence-based practices (Fischer et al., 2021). McPhilemy and Dillenburger (2013) argued that if publicly funded educational systems were to offer high-quality ABA-based interventions, then children could receive an appropriate research-based education.

According to Graham and Miller (2021) principles of behavior are not often integrated into the classroom or included in special education teacher training. Historically, researchers (e.g., Shores et al., 1993; Strain et al., 1983; & Sutherland 2000)

have documented a lack of positive reinforcement in classrooms. Knowing this deficit exists, it is important to investigate what districts are doing to equip educators to be consumers of behavior analytic research to understand the effects of their behaviors on student behaviors (Nelson & Kauffman, 2020). Educators who are trained in the science of behavior analysis are more likely to incorporate positive behavioral supports into their classrooms than teachers who do not training in behavior analytic interventions (Nelson & Kauffman, 2020). A need exists in providing training on how to assess and develop function-based treatment options to staff working with students that display challenging behaviors.

Another concern that may threaten student progress and the effectiveness of behavior intervention plans is the appropriate use of evidence-based practices or interventions. Although the need for evidence-based interventions is encouraged, it must also be practical. The misuses of an intervention, or the implementation of an intervention that has not been peer reviewed in a general setting could pose threats to public schools. This could lead to frustration with implementation as educators have to balance many aspects of teaching. Asking someone to implement an intervention with limited data in a natural setting could lead to misuse of an intervention and false data (Hogan et al., 2015). It is important for researchers to conduct investigations of evidence-based strategies and recommendations in the natural setting to ensure the generalization of concepts to an applied environment. As a teacher and principal, it is important to understand how to select the most appropriate practices to effectively change behavior.

Experiences and Perspectives

As preservice teachers transition to working in a classroom, deficits in behavior management, can cause concerns in the classroom as well as decreased confidence in the teachers' abilities to be a successful teacher (Mitchell & Arnold, 2004). Analyzing literature on teacher preparation programs revealed concerns in the type of behavior strategies covered, the alignment of evidence-based interventions outlined in the curriculum, the need for more field-based practices, and the lack of confidence expressed by novice educators regarding supporting students who engage in challenging behavior. The need for highly trained professionals does not end when aspiring teachers walk across the graduation stage and receive their undergraduate degree. Effective teachers and leaders are lifelong learners. As revealed, educators often start their careers off with a discrepancy in understanding how to manage challenging behaviors. Handling challenging behaviors is often identified as one of the most perplexing aspects of teaching (Taylor, 2011). There are multiple studies in which educators report that they feel inadequate in managing the behaviors of students with emotional and behavioral disabilities (e.g., MacDonald & Speece, 2001; Nelson et al., 2001).

Young and Martinez (2016) surveyed approximately 500 teachers to understand their perceptions of handling challenging behaviors in the school settings. Results were that 76% of teachers reported challenging behavior could be attributed to poor parenting and 77% suggested a result of past trauma (Young & Martinez, 2016). Twenty percent of participants reported that teaching practices caused challenging behaviors to occur. When behavior analytic practices were investigated, most participants misunderstood reinforcement; and 28% of participants believed individualized behavior plans requiring

reinforcement were unfair to other students. This mindset captures a misunderstanding between equality and equity. To provide an equitable learning experience for students, it is critical for educators to understand how they can use the principles of behavior to produce maximum learning and minimal disruptions.

When interviewing teachers of a Head Start program about how they address challenging behaviors, Snell et al. (2012) disclosed five themes classified as barriers to campus success: (a) a lack of staff training in evidence-based interventions, (b) unaligned beliefs of teachers and outside providers, (c) lack of family support or involvement, (d) inadequate classroom staffing, and (e) lack of communication. Through interview data, Snell et al. (2012) unearthed those teachers often relied on punishment procedures like the removal of desired activities or items instead of implementing positive and individualized programs. If teachers are expected to use positive behavior supports, then professional development must support educators in applying evidence-based practices and generalizing into the classroom (Snell et al., 2012).

Historically, public education has been viewed as an institution which relies heavily on the rapid effects of punitive consequences to manage challenging behaviors (Hatzenbuehler et al., 2019). Despite the literature on positive reinforcement and school wide interventions (i.e., Becker, 2013; Boscic, 2018), punishment-based procedures continue to be at the forefront of many campuses. Punishment procedures often produce rapid behavior change; therefore, they are commonly used as a quick fix to address behaviors of concern (Hatzenbuehler et al., 2019). However, this approach does not address the function of the problem, and it does not teach an appropriate replacement behavior. Special education teachers reported that although positive behavioral

interventions and support are a required component of many students' educational programs, less than 42% of educators have received coaching on their campus positive behavior intervention and supports framework (Shuster et al., 2017). Researchers have established the presence of a relationship between collective efficacy of educators implementing positive behavior intervention and supports and the leadership of classroom teachers (Nichols et al., 2020).

Campus Leadership Dynamics and Responsibilities

In this section the term campus leadership reflects that of school principal or assistant principal. In later sections I will highlight how principals can use their leadership skills to disseminate responsibilities to other leaders in the school. The role of a campus administrator has evolved from a managerial position into an instructional leader (Bambrick-Santoyo, 2018). This student-outcome focused approach is a monumental undertaking as it requires campus leaders to be knowledgeable of curriculum alignment, the learning process, student performance/data, and intervention needed to bridge deficits. Campus administrators are intentionally and strategically guiding teachers in data driven instructional practices (Bambrick-Santoyo, 2018). In addition, campus leaders are responsible for the day-to-day operations, the budget, and hiring. Campus administrators are tasked with balancing all these demands and responsibilities, all while developing and maintaining a positive campus culture that considers diversity, inclusion, and equity.

School leadership plays a critical role in student outcomes, including managing student behavior. Marzano et al. (2005) compiled data from examining 69 studies over 35 years into a meta-analysis primarily focused on understanding inconsistencies in the

impact of school leaders on student achievement. The meta-analysis revealed 21 responsibilities of school leaders. Researchers then conducted a factor analysis to understand underlying traits that were common within these leadership responsibilities. As a result of the factor analysis, two change processes were identified: first order/incremental change and second order/deep change. Leaders who addressed first order changes (manage the daily needs of the school) addressed 21 responsibilities for the school to function successfully (Marzano et al., 2005). Many of these responsibilities related to student behavior and discipline include providing contingent rewards, being an optimizer, developing a strong culture, assigning appropriate discipline, monitoring/evaluating program effectiveness, ordering relationships, allocating appropriate resources, and developing situational awareness.

The quality of campus leadership is related to student performance (Marzano et al., 2005). Marzano et al. (2005) found that students with an above average principal (based on principal evaluation ratings), had a 25% higher passing rate on their state accountability assessment than those who had a poor performing principal. Research has shown that a principal's quality has a significant impact on student achievement, second only to the impact of the classroom teacher (Grissom et al., 2021). Grissom et al. (2021) attributed this considerable influence on the wide range of support a campus leader provides (Grissom et al., 2021). Grissom et al. (2021) found that by swapping a principal rated in the lower quarter in effectiveness with one at the 75th percentile resulted in increased student performance in both reading and math by nearly three months growth per year.

These findings strengthen the importance of campus leadership. Leadership should be intentional and requires strategic planning to have a positive effect on student outcomes. In this section, I will review literature on how school leadership affects the campus culture including: their role in behavior management (including disproportionalities); their role in teacher efficacy, stress, and attrition; and the impact of intentional professional development.

Behavior Management

Many campus leaders excel in providing curriculum support as a lead learner for their campus; however, some may have limited experience with applying principles of behavior to support students who engage in challenging behaviors. Some principals have a heightened inclination to reprimand students and give them an in-school suspension (ISS) or out-of-school suspension (OSS) (Bacher-Hicks et al., 2019). Further data from this study implied that principals who administered punitive consequences increased the likelihood of student dropouts and the potential of negative encounters with law enforcement. These authors concluded that a harsh principal would have less incidents of problem behaviors; however, they will also have students with a lower likelihood of graduation, and students they serve will have a greater likelihood of being charged with a misdemeanor as a young adult (Bacher-Hicks et al., 2019). The composition of U.S. schools reveals the increasing intricacy of school leadership and a rise in demand to develop an equitable learning environment that considers various cultural, financial, and academic needs (Grissom et al., 2021). These demands require principals to cover a broader set of skills, expertise, and practices to ensure student success.

Disproportionality

When covering a school leader's role in supporting behavior management, it is critical to discuss concerns around disproportionalities. Campus leaders are responsible for ensuring that teachers implement data-driven instruction to decrease or limit academic disproportionalities as it pertains to students in special education, students from minority backgrounds, and students who are poor (Bambrick-Santoyo, 2018). This approach should not be limited to academics. Leaders need to consider evidence-based practices to individualize behavioral needs. Not only is it imperative that leaders are focused on the improvement of student outcomes, but they should also be focused on cultivating more confident and knowledgeable teachers.

Another aspect of developing an inclusive climate relates to how campus leaders manage discipline and prioritize practices to decrease disproportionality within disciplinary gaps (Grissom et al., 2021). Principals who prioritize equity seek to hire teachers who demonstrate diverse pedagogical skills and a willingness to serve a range of students by providing what each student needs to be successful (Grissom et al., 2021). To summarize the words of Collins (2001), leaders need to get the right people on the bus. This saying encourages leaders who consider not only an educator's competencies but also their ability to contribute to the vision for the campus (Bambrick-Santoyo, 2018).

Campus administrators are now faced with developing a community of culturally responsive educators with the goal of promoting equitable outcomes (Grissom et al., 2021). As revealed earlier, both pre-service and current teachers reported a lack of competency when implementing practices for students with disabilities (Tümekaya & Miller, 2020). Inclusive teachers reported to be moderately prepared when they managed

challenging behaviors associated with students with disabilities (Tümekaya & Miller, 2020). Even though many teachers are unsure on the process of implementing function-based intervention, there are mandates that require teachers to implement these practices when necessary (Renshaw et al., 2008). Principals guide a campus' vision, and the priorities affect the quality of instruction for many subpopulations. Principals can directly channel change by managing the disciplinary actions of students who are classified as poor, in special education, or minorities. They can also mitigate disproportionalities by working with teachers to implement culturally responsive teaching practices, hiring proportionate staff to student representation, promoting inclusive practices, and providing services and supports that ensure equity (Grissom, et al., 2021).

Teacher Efficacy

The success of many interventions relies on the knowledge and skills possessed by the implementor: the teachers and paraprofessionals in public education (Ling et al., 2012). Further, how a staff member perceives their own abilities to implement interventions affects outcomes. The way staff members attribute student behaviors can affect their responses; and their responses either increase (when sympathizing) or decrease (in anger) the staff's willingness to assist the students when engaging in challenging behaviors. A teacher's belief system affects how they provide instruction, develop routines, and implement behavioral strategies in their classrooms (Crouch & Cambourne, 2020).

By understanding why particular strategies or interventions are recommended and the potential behavior change outcomes, teachers can assess how their own beliefs align with the proposed support plans. Crouch and Cambourne (2020) shared that it is difficult

for educators to evaluate their own instructional and behavioral decisions when they lack a cohesive theory to anchor their reasoning. The level of support from campus leaders directly affects teachers' beliefs in their abilities to manage challenging behaviors (Tümekaya & Miller, 2020). Crouch and Cambourne (2020) shared those educators who do not trust their campus leadership team struggle to be risk takers. Smyth et al. (2019) ascertained that even a single afternoon training session on ABA offered to teachers and paraprofessionals increased educators' knowledge and increased positive self-reported attitudes towards handling challenging student behaviors. It is critical for campus-based staff and district level leaders to work together to maximize learning opportunities by developing appropriate training that can improve a teacher's competence and thus increase self-efficacy. Now that concerns have been noted in teacher preparation and current teacher perspectives on handling challenging behavior, it is important to consider the role of the campus administrator in supporting students who exhibit behavior deficits and excesses.

Teacher Attrition

There is an overwhelming need for special education teachers across the United States, primarily due to a shortage of qualified teachers (Billingsley & Bettini, 2019). In addition, Texas continues to struggle with retaining special education teachers (Sutcher et al., 2016). In 2020-2021 according to data from the Public Education Information Management System (PEIMS) database, teacher attrition rates in Texas continue to be at a higher than the national average; 9.34% compared to 8% respectively (TEA, 2021). Last year, 33,947 teachers left the field of education. To mitigate this void, 40,724 novice teachers embarked on a career in education. First year teachers are the most at-risk of

leaving the field of education (IRIS Center, 2021). Some estimates suggest that nearly 50% of novice educators leave the field after only serving for a few years (IRIS Center, 2021). Billingsley identified many factors contributing to high teacher turnover: lack of support from administrators and colleagues, large caseloads, excessive paperwork, and student behavior etc. (IRIS, 2021). In addition to typical stressors, novice teachers are just entering the field unprepared and often lack educational experiences (Elizalide, 2021). As a result, they leave the profession at an alarmingly high rate (Elizalide, 2021).

In addition, teaching students in 2022 has the added impact of the COVID-19 pandemic. This national health crisis has led to increased anxiety and stress for educators (Carver-Thomas et al., 2021). Districts are struggling to find substitutes for educators who are unable to work due to COVID-19 (Carver-Thomas et al., 2021). The most recent data report that teacher unemployment rates have decreased due to the economic implications of COVID-19; however, educator satisfaction has also decreased (Rosenberg & Anderson, 2021).

To mitigate the exodus of teachers, leaders will need to work towards providing a supportive environment that is rewarding and sustainable (Rosenberg & Anderson, 2021). According to Kouzes and Posner (2017), leaders can strengthen others by assisting them to enhance their self-determination and supporting them in developing competence and confidence in their craft. Through observation, data analysis, and conversations, leaders should be working with teachers to identify patterns and provide intentional training. This training should bridge the gap between pedagogy and student outcomes, thus increasing teacher competence and job satisfaction.

One responsibility of a campus leader is to develop a keen sense of situational awareness (Marzano et al., 2005). Leaders need to understand the potential effects of exposure to repetitive challenging behaviors. Willems et al. (2016) learned that staff working with students who exhibited challenging behaviors need training on emotional-regulation techniques. A professional's emotions affect interpersonal relationships between students and staff. To create a more positive community, adults should aim to exude more positive than negative outlooks (Willems et al., 2016). Job satisfaction is positively related to how confident a teacher is in their abilities to teach (Kasalak, & Dagyar, 2020). Self-efficacy of staff is also related to an increase of positive behavior outcomes (Willems et al., 2016). Strategies used to support the emotional stressors of dealing with challenging behaviors include emotional intelligence training and mindfulness workshops. A teacher's belief system affects how they provide instruction, develop routines, and implement behavioral strategies in their classrooms (Crouch & Cambourne, 2020). By understanding why particular strategies or interventions are recommended and the potential behavior change outcomes, teachers can assess how their own beliefs align with the proposed support plans. Crouch and Cambourne (2020) shared that it is difficult for educators to evaluate their own instructional and behavioral decisions when they lack a cohesive theory to anchor their reasoning.

Understanding the foundational theoretical principles that make up one's teaching philosophy is critical to the longevity of educators working with students who have disabilities (Jennett et al., 2003). Understanding principles of behavior allows teachers to visualize the current situation through a behavior analytic lens. Special education teachers are more prone to implement research-based interventions grounded in the principles of

behavior as opposed to a trial-and-error teaching technique. Jennett et al. (2003) and Siu and Ho (2014) discovered that the more committed teachers were to implement their philosophy of teaching, the higher they rated their personal efficacy. Teachers of students with disabilities who understand the philosophy behind the science of behavior and are skilled in implementing ABA strategies are less likely to experience burnout and evaluate themselves as more self-efficient than those teachers who are not training in ABA (Jennett et al., 2003; Siu & Ho, 2014). Higher levels of self-reported efficacy relate to lower rates in teacher attrition; therefore, it is imperative that special education teachers receive quality professional development that derives from behavior analytic principles.

Professional Development

Even though legislation emphasizes the need for qualified personnel to have adequate training to carry out evidence-based strategies, it does not list who the primary party is who will ensure teachers are adequately trained. In Texas, principals are trained on the professional standard for educational leaders (PSEL); these guidelines highlight the most critical skills necessary for an administrative certification (Professional Standard for Educational Leaders, 2022). Many campus administrators use a teacher evaluation process to monitor the growth and development of campus staff and guide professional learning opportunities (Professional Standard for Educational Leaders, 2022). The origins of teacher evaluations developed to hold educators accountable for the instructional practices in the classroom. Educators are required to attend professional development each year as outlined in their certification guidelines (Texas Education Agency, n.d.-c). School administrators are required to ensure that teachers make progress toward achieving their number of required professional development hours for certification

renewal (for teachers it is 150 hours [about 6 and a half days) per 5 years; Texas Education Agency, n.d.-c). Highly effective principals use data to grow the capacity of their employees; therefore, teacher quality should be important to all school administrators (Desravines, et al., 2016). Currently, there is not a statewide formal system in Texas for school leaders to monitor what current or recent training is required, and if the teachers on their campus have received all training necessary for their success. The need for teachers to be highly trained in effective practices and interventions is a focus that school leadership will need to become more mindful of (Office of Elementary and Secondary Education, 2020).

Professional development is a tool used by leaders to introduce new skills, improve older skills, and increase teacher efficacy. Ling et al. (2012) clarified that traditional staff training models have limited effects or lasting influences on a staff's response to handling challenging behaviors. Hirsch et al. (2019) found that training novice teachers on universal classroom management practices lowered the number of times teachers reprimanded students while simultaneously increasing student engagement. Unfortunately, many special educators are required to participate in professional development they deem of little to no relationship to their roles in the classroom or with the students they teach (Billingsley, 2004). As a leveraged leader, campus administrators are now tasked with developing professional growth opportunities that are student- and staff-centered and derived from a data-driven approach (Bambrick-Santoyo, 2018). Therefore, it is important for campus leaders to understand the quality of their staffs' performance. Leaders need to be able to recognize behavior management shortfalls and design a plan to assist teachers and paraprofessionals through professional development.

Darling-Hammonds et al. (2017) reviewed 35 studies on professional development to identify positive links between training, teaching practices, and student outcomes. Researchers found that effective professional development demonstrated all or most of the following seven features: (a) content focused; (b) involved active learning; (c) encouraged collaboration; (d) modeled effective practices; (e) provided coaching and support; (f) offered feedback and reflection; (g) and was sustainable in a current educational setting (Darling-Hammond et al., 2017). Researchers urged policymakers to consider adopting standards for professional development. Standards would intensify the rigor of training and require a link connecting newly acquired skill to student outcomes. Policymakers could work with school leaders to prioritize professional learning opportunities when devising the school calendar. Further, Darling-Hammond et al. (2017) recommended that districts conduct assessments to determine the areas of campus growth, as well as establish preferences from educators when developing a plan for professional learning. Policymakers could provide the funding necessary to support a teacher's professional growth (Darling-Hammond et al., 2017).

As a campus leader, it is important that teachers and paraprofessionals process the knowledge they need to be successful and promote student growth. Concerns not only arise with the lack of research-based practices being implemented in school settings, but also in the integrity at which these strategies and recommendations are implemented with fidelity (Noell et al., 2005). Campus administrators should be involved in procedural fidelity as needed. Alter and Haydon (2017) highlighted the importance of teachers implementing any intervention with consistency and fidelity, for success to occur. Professional development that incorporates rehearsal and feedback opportunities allow

educators to practice the implementation of evidence-based practices (Devine et al., 2013; Gallant & Gilham, 2014).

Coaching. Traditional professional development usually does not impact student performance (Knight, 2007). Many campus leaders are now implementing a coaching model to provide real time feedback of skills recently trained on; however, this term has been inconsistently described throughout literature (Seniuk, et al., 2013). In this paper we are describing coaching as a model that allows professional development to transcend from formal learning to real-time implementation (Aguilar, 2013). Coaching is a style of professional development where the learner is encouraged and supported while developing new skill sets (Aguilar, 2013). Coaches model new behaviors while implementing a gradual release of responsibility; this approach allows learners to experience success independently (Knight, 2007). Instead of training ending with lecturing on what to do, teachers are practicing their craft in the classroom and campus leaders (principals, teachers, and interventionists) are supporting their success by providing feedback.

It is critical to understand what coaching is, to better understand the importance of hiring highly qualified staff to provide coaching. Learners need opportunities to apply what they think they learned and receive feedback to strengthen their understanding and implementation (Crouch & Cambourne, 2020). Darling-Hammond et al. (2009) found that for teachers to learn and implement new skills that impact student achievement, it would require educators to undergo approximately 50 hours (more than six workdays) of professional development. This quantity of professional development may not be practical in the current educational setting. The goal of instructional or behavioral

coaching is to support educators in their efforts to implement evidence-based instructional practices in real time.

By viewing the learning process as a series of behaviors, a teacher can alter the conditions that will maximize the student's learning potential. Coaches investigate the historical context to explore *how* a teacher is teaching a particular skill (Aguilar, 2013). Coaching focuses on understanding the learners' processing, behaviors, and beliefs. Aguilar (2013) boldly claims that coaching is a necessary component of a successful professional development program. A coaching model is important because educators' successes are positively related to teachers' competencies and thus reveal the importance of educators being well versed in various teaching practices (Knight, 2009). Many researchers (e.g., De Jong & Campoli, 2018; Eastman, 2019) have studied the positive effects of instructional coaching on improving teachers' self-efficacy. Instructional coaches working with the Kansas University Center for Research and Learning lump their effective teacher practices into "The Big Four": behavior, content, instruction, and formative assessment. If students are exhibiting challenging behavior, the teachers will struggle to make instructional practices work (Knight, 2007). Therefore, it is recommended that most instructional coaches begin with classroom management. Some districts are going a step further and hiring staff to focus on supporting students who exhibit challenging behaviors. Devine et al. (2013) described several types of coaching including behavioral coaching, solution-focused coaching, cognitive and cognitive-behavioral coaching, instructional coaching, executive coaching, peer coaching, and positive organizational scholarship. For the purposes of this study, we will be taking a closer look at behavioral coaching. It is important to note that behavioral coaches could

have many names; behavior interventionists, behavior skills specialist, behavior coaches, or even an expert teacher in supporting behavior.

A behavioral coach without training in ABA could take the aspects of coaching described in the previous section and apply them to reducing or increasing behaviors that occur in a school setting. With many novice teachers exiting the profession due to an inability to manage student behavior, the additional training in ABA could be critical (Dalton, 2019). If campuses employed behavior coaches, they may be able to alter teacher retention and improve classroom climates (Knight, 2007). When taught novice instructional strategies for behavior management techniques, educators were more successful providing interventions and instruction when they were provided with coaching-type support (Devine et al., 2013). Behavioral coaches can assist with real-time feedback thus increasing the effectiveness of implementation.

Limitations of Staff not Trained in Principles of Behavior

With all the demands placed on campus administration; discipline management is often delegated to other campus-based professionals. On many campuses, counselors are the facilitators of discipline and generators of support plans for students with problem behaviors; although, many counselors report that they do not have knowledge on the principles of behavior (Yildiz et al, 2020). Counselors reported that they felt ABA could be used in the school setting but only with a smaller number of students (Yildiz et al., 2020). Counselors also stated that many teachers will either send students to the guidance office for support or punish them directly. These findings concur with the assumption that punitive consequences remain to be used often in public schools. Campus administrators will be more adept to support challenging behaviors if they are provided with training and

awareness of how to implement behavior analytics tactics to change behaviors (Boutot & Hume, 2012).

On some campuses the behavior coaches will assist with discipline. Despite an apparent need to support behavior concerns in the classroom, coaching material developed by Knight (2007) provides limited evidence-based practice to aid in behavior change within the classroom. As mentioned above coaches are trained to support teachers and students; however, training to become a behavior coach is not regulated. Knight does advocate for a behavior approach described as the Conversations, Help, Activity, Movement, Participation, Success (CHAMPS) approach. This acronym developed by Randy Sprick is a proactive and positive approach to classroom management (Knight, 2007). Sprick's approach described some recommendations to support teachers but does not investigate the underlying functions of why behavior occurs or how to change behavior. For example, Sprick describes how coaches can record the frequency of reinforcement provided by the teacher and encourage behavior change to increase the quantity of positive comments to negative (Knight, 2007). Another suggestion is for coaches to provide teachers with corrective comments. Instructional coaches can also document the time that students are on task to understand the level of engagement within the classroom. Lastly, Knight (2007) recommends increasing opportunities for engagement. The major concern with this behavior coaching material is that educators who receive training to become a behavior coach may not have a solid foundation in ABA, because it is not required. If there are no regulations on the qualifications of a behavior coach regarding behavior analysis, this could cause concerns with implementing behavior analytic campus initiatives.

To effectively support campus initiatives that are based on the principles of behavior (such as positive behavioral support initiatives, decreased alternative disciplinary consequences, and using functionally aligned replacement behaviors), a behavior coach should be trained in behavioral principles. When campuses hire staff who are not trained in ABA to support behavioral initiatives, there is a stronger possibility of the misuse of the desired intervention (Demchak et al., 2020; Fielding et al., 2013). There are many misconceptions of ABA that stem from the lack of training and misuse of behavior analytic tactics by individuals who are not trained in the field of behavior analysis (Demchak et al., 2020; Fielding et al., 2013). If interventions are not implemented as designed, they could lose their effectiveness.

What is a BCBA?

A BCBA is a nationally certified professional that is trained in the principles of behavior. There are three minimum criteria that must be met to obtain a certification as a BCBA: a master's degree which includes specified course content, intensive supervised fieldwork, and a passing score on a national standardized exam. Should a behavior analyst meet all these requirements, they may also need to become licensed in their current state. Currently, 33 states have adopted a state licensure, Texas has required practicing BCBA to hold a state licensure since 2018 (BACB, n.d. -b).

To monitor and assist in the certification of behavior analysts, the Behavior Analyst Certification Board (BACB) was developed in 1998 (BACB, 2022). According to the BACB, behavior analysts have specialties in many areas including but not limited to, "Autism & Intellectual/Developmental Disabilities, Behavioral Gerontology, Behavioral Pediatrics, Sports, Brain Injury Rehabilitation, Prevention/Intervention in Child

Maltreatment, Clinical Behavior Analysis, Education, Health and Fitness, Organizational Behavior Management, Sustainability, and Treatment of Substance Abuse Disorders” (BACB, 2022). According to data from the BACB, demands for behavior analysts with a board certification or a doctoral level certification has increased by 5,852% in the last twelve years (BACB, 2022-b). Since 2010, there has been a continued increase in demand; in 2020-2021 there was a 38% increase. In 2021, 48% of the total demand came from only five states. Texas was ranked the third highest in demand (BACB, 2022-b). Nationally, only 12% of BCBAs are working in the field of education (Syed, n.d.). The concern however is that there are approximately 870 board certified behavior analysts serving in public education, and 130,930 public schools in the United States. If these BCBAs were assigned to work on a campus, then these data reveal that only 0.6% of schools in America have employed a BCBAs. This small number of public education-based behavior analysts relative to the number of districts in Texas emphasize the importance of investigating the roles they serve and their shared experiences. To understand the significance of this disparity, we must consider the need in public schools for evidence-based behavioral initiatives and qualified specialists to train and implement these practices. There are many concerns with campuses not having staff members who are a behavior analyst or have been trained in the principles of behavior from a highly qualified person (Demchak et al., 2020; Fielding, 2013).

Misconceptions of ABA

There are some misconceptions of ABA that are apparent in the field of education and could be impacting the hiring of behavior analysts or the effectiveness of behavior analytic initiatives (Demchak et al., 2020; Fielding et al., 2013). One reason for the

misconception may be that the team of experts working to support individuals who engage in challenging behavior may not be trained in ABA. Many misconceptions of ABA have arisen due to the misuse of behavior analytic techniques by those who are not trained in the science of behavior. The misuse of this science often has negative implications infringed upon the field of ABA (Demchak et al., 2020). An example of misuse was apparent in Ravitch (2020): *Slaying Goliath*. Chapter 7 is titled, “Rewards and punishments are not good motivators”. Ravitch (2020) attempted to demonstrate how a behaviorist perspective is damaging to education. She highlighted harmful effects of using extrinsic motivators over intrinsic motivators. Ravitch was referencing the over justification effect, which occurs when extrinsic motivators override the values of intrinsic motivation (Levy et al., 2017). Researchers who have investigated this topic with students who have intellectual disabilities found little evidence supporting the reliability of the over justification effect (Levy et al., 2017). The miscommunication of implementing behavior analytic practices in public schools especially on extrinsic motivators was reviewed also in Fielding et al. (2013). Researchers highlighted that if an intervention was not implemented as designed, then it should not be identified or labeled as such. Misuse of procedures that are founded on the principles of behavior can affect the perception of those in public schools.

All behavior analysts have ethical guidelines in place to ensure the fading of any prompts or supports (BACB, 2022). Therefore, a well-designed program will mitigate the claim that Ravitch presents. To further dispute Ravitch’s claim, a reinforcer (by definition) would increase the likelihood of a behavior reoccurring in the future. If an educator were providing a stimulus after a behavior (in hopes of it changing the

behavior), but it did not affect the desired behavior, it would not meet the definition of a reinforcer (Skinner, 1938). A behavior specialist who is not trained in the principles of behavior could claim to be using a reinforcement procedure and thus place blame on the ineffectiveness of the procedure, instead of the inaccurate implementation process.

Demchak et al. (2020) highlighted multiple misconceptions in ABA that are currently being discussed in the mainstream setting. These myths included: (a) ABA only being an effective strategy when working with students with ASD, significant disabilities, or challenging behaviors; (b) reinforcement is bribery; (c) discrete trial training is the same thing as repetitive drilling; (d) ABA is too complicated to be implemented within a classroom; and (e) ABA can only be implemented by a behavior analyst. Additional myths were published in Fielding et al. (2013) and included (a) ABA is exclusively for ASD; (b) ABA is exclusively used in one-on-one instruction; and (c) the misuse of ABA terminology in the public. It is critical to have behavior analysts in the field of education to advocate for the field of ABA and working to ensure the effectiveness of treatment and recommendations. Without appropriate representation in public schools, many of the misconceptions could impact the effectiveness of behavior analytics programs, as well as the overall perceptions of ABA. It is dangerous for the field of ABA to not have adequate representation in public schools especially if these environments are using misusing interventions grounded in the principles of behavior (Demchak et al., 2020; Fielding et al., 2013).

Behavior Analysts in Public Schools

The roles of behavior analysts in public education are eclectic; some serve as interventionists, behavior coaches, staff trainers, program creators, or witnesses in hearings. The scope of a behavior analysts' knowledge and abilities are not limited to working directly with students with behavior concerns; however, their role or job description in public education may limit them to this subpopulation. A behavior analyst who is providing direct services to students in public education is going to offer a scientific, data-based approach to changing socially relevant behaviors, whether it be to decrease an inappropriate student behavior, increase a desired student behavior, or change a desired staff behavior. A behavior analyst could provide direct services including conducting evaluations, drafting reports, developing interventions, and overseeing the implementation of the designated interventions (BACB, 2022). The behavior analyst could also provide training or support to teachers as needed to ensure the interventions were implemented as designed. According to Locke et al. (2016), too often teachers are expected to implement evidence-based practices with little or no training on how to. A behavior analyst can provide trainings to staff and students; however, their services should be outlined explicitly. Direct services provided by a behavior analyst must be consented by the parent or legal guardian as outlined in the Code of Ethics for Behavior Analysts (BACB, 2022), in addition, it would also need to be outlined in their public-school job duties, roles, and responsibilities.

A behavior analyst can implement a behavioral approach to problem solving in a constructivist setting by focusing on a transfer from covert to overt behaviors (Kieta et al., 2019). The difference in a behavior analyst's approach to behavior change is the

reliance on the science of behavior. Just as a scientist focuses on manipulating variables to investigate their effects of dependent variables, a behavior analyst uses the same process to alter and improve behaviors through environmental manipulation. In compliance with the code of ethics that guides behavior analysts to work in public education, a behavior analyst must practice within their competency (BACB, 2022). So, if a behavior analyst has no experience in schools, they cannot ethically practice in schools without supervision or guidance of another experienced BCBA. If a behavior analyst practices outside their scope of experience, then they are subject to code infractions which could result in consequences by the BACB.

To address challenging behavior, it is important to understand why the behavior is occurring; technically, this is known as the function of behavior. There are three distinct types of assessments that can be conducted to aid in determining a behavior's function: indirect assessments, descriptive assessment, and functional analysis (Hanley, 2012). An indirect assessment involves gathering data on a behavior without directly observing the behavior, this could include methods such as interviewing teachers or providing a survey to a parent (Paclawskyj et al., 2003). As described earlier, most campuses will conduct a FBA to determine a hypothesized function of behavior; this is often a form of descriptive assessment. The last assessment is a functional analysis which is implemented to evoke the target behavior, allowing behavior analysts to solidify the actual function of the behavior. This analysis allows a behavior analyst to see the actual effects of changes to the target behavior, and thus removes the hypothesized assumption. A functional analysis can be part of a FBA, but it can only be conducted by someone with sufficient training,

such as a behavior analyst. This analysis has been outlined in literature by Iwata (1982 and republished in 1994).

Phillips (2011) investigated how much emphasis was placed on functional analyses for students with intellectual disabilities in Massachusetts. When focusing on responders who worked in public school systems, 66.7% indicated they did not have enough trained staff to conduct these assessments. Determining the function of a target behavior could be a complex process; however, if trained in behavior analysis this process is not as difficult (Hanley, 2012). After a two-hour training, undergraduate students were able to implement the common conditions in a functional analysis (Iwata et al., 2000). Phillips (2011) determined that 54% of respondents stated they did not have an appropriate space to conduct a functional analysis. The biggest barriers, however, were in the lack of acceptance or support from administration and parents with the process of implementing a functional analysis primarily due to the intentional evoking of problem behavior (Phillips, 2011). Hanley (2012) addressed this chief complaint by posing a question, what is more dangerous to the child? The behavior being evoked during an evaluation, or that the behavior continues to occur in the natural environment without proper tactics in place to support this behavior. Further, Hanley provides recommendation for the testing environment and presentation of consequences should the target behavior involve self-injury (Hanley, 2012).

Another claim is that even with appropriate staff, educators do not have the time to implement these functional analyses (Mueller et al., 2011). One article supporting ABA in an inclusive environment was written by Mueller et al. (2011) in which researchers conducted a literature review of over 90 functional analyses in public school systems.

More than 70% of the functional analysis were completed in two hours and at least 80% in three hours. Over 60% of the functional analyses were conducted in the student's classroom setting. These data show that with a little time, functional analysis can be conducted in a school environment in a reasonable amount of time. It should be noted that it may not be safe to address all behavior concerns through a functional analysis in a general education setting.

Despite claims that functional analysis is not manageable or timely in the public education environments; there have since been modifications to the traditional functional analysis developed by Iwata et al., (1982;1994) that could be more easily implemented in public schools. Wallace and Iwata (1999) demonstrated that shorter session times also produced valid results. The use of trial-based functional analysis is an abbreviated version of a traditional functional analysis that still has evidence backing its effectiveness (Sigafoos & Sagers, 1995; Feldman & Boesch, 2019). Classroom based applications of trial-based functional analysis have been conducted and used to develop effective interventions for students (Bloom et al., 2011). In addition, Greg Hanley developed the interview-informed synthesized contingency analysis (IISCA), to evaluate functions of behaviors (2012). This procedure is determined to be less time intensive than the traditional functional analysis (Coffey et al., 2019). Further, the treatments recommended because of the IISCA data were 90% effective in decreasing problem behavior (Coffey et al., 2019). Behavior analysts have explicit training in behavioral assessment, behavior change procedures, and data analysis that help them to understand how and why behavior occurs. They will use evidence-based practices that are derived from the principles of behavior to aid in desired behavioral change. Since behavior analysts are trained in the

conceptual foundations of many of these procedures, they might be more readily used by them opposed to a behavior specialist with limited training in the field of behavior analysis. In addition, behavioral analyst will do so in according to the ethical guidelines (BACB, 2022).

Programs for Behavior Change

After the completion of a functional behavior assessment, a behavior analyst could design a behavior intervention plan (BIP) or IEP using evidence-based practices to modify a target behavior. There are numerous evidence-based procedures that a behavior analyst is trained to implement including but not limited to: reinforcement, extinction, punishment (if applicable), antecedent intervention, stimulus control, verbal behavior, equivalence-based instruction, emergent learning with nonequivalence relations, imitation, modeling, shaping, chaining, self- management, differential reinforcement, and generalization (Cooper et al., 2020). In the field of education, interventions using the principles of behavior have led students with disabilities to significant gains in language skills, social skills, and academic skills (Foran et al., 2015). Function-based interventions that have been designed by behavior analysts and carried out by campus staff have effectively decreased challenging behavior (Foran et al., 2015).

A behavior analyst is not only concerned with decreasing inappropriate behaviors, but they can also work to increase appropriate behaviors (Cooper et al., 2020). It is imperative that educators understand how to teach appropriate function-based replacement behaviors for challenging behaviors. Examples of the student success using interventions that target appropriate behavior can be found in Robinson et al. (2020). In this study researchers implemented differential reinforcement of an alternative behavior

in an inclusive setting and were able to decrease self-injurious behaviors from five times a day to two-three times per week. Bosc (2017) was another study that demonstrated how the implementation of evidence-based practices had drastic effects on student behavior. In this study researchers investigated the effects of combining four evidence-based practices (i.e., Total Transformation, Boys Town, peer-to-peer mentoring, and ABA) to support the campus-wide positive behavior support efforts in decreasing the number of student restraints. Campuses that implemented these programs experienced a decrease in student restraints by 69% as well as saw an 130% increase in student reintegration back to the campus. Teachers have been trained by behavior analysts to implement class-wide interventions grounded in the principles of behavior to decrease disruptive behaviors (Joslyn & Voller, 2019barr). Behavior analysts and other researchers have implemented group contingencies in a variety of studies to change whole class behaviors (e.g., Barrish, 1969; Flower et al., 2014; Groves & Austin, 2017, 2019; & Joslyn et al., 2014) and yield greater student achievement. The Good Inclusion Game is a practice to alter behaviors of a group, such as a classroom of students. Dillenburger et al. (2019) found the intervention to lead to an increase of appropriate behaviors and decreased disruptive behaviors for all students (Dillenburger et al., 2019).

Academic Instruction

Instructional methods have also been investigated by behavior analysts and are supported by data documenting their effectiveness. When using ABA and peer mentoring to teach imitative play skills. Hatzenbuehler et al. (2019) discovered that students with ASD were able to imitate peers during play in an inclusive setting. Researchers have found that students understood play concepts quicker with peer-mentors (greater than

90% accuracy on trained and untrained pairings). Christle and Schuster (2003) discerned that by providing students with response cards, students were more likely to engage when the teacher checked for understanding. Sutherland et al. (2003) also uncovered that the more students who used response cards participated in more classroom responses, they increased the number of correct responses and task engagements while also decreasing off-task behaviors. Briere et al. (2013) implemented a concurrent multiple-baseline study to reveal that vocal praise (specifically in positive statements) affected student performance. Further, the greatest skill acquisition in training was acquired by educators who were provided feedback from a behavior analyst.

Discrete trial training is a behavior analytic technique which involves breaking complex tasks down into sub skills and teaching each skill through repeated practice (Wolf et al., 1964). This procedure involves a highly structured sequence including presenting discriminative stimulus (i.e., providing a directive), the student response, and a consequence for the response (Loovas, 1981; Loovas, 1987). Prompting fading, error correction, and reinforcement procedures are often used to promote positive outcomes (MacDuff et al., 2001). These procedures have been used to improve academic skills, language, self-help, social, and play skills (Luiselli, 2008; Lerman et al., 2016).

Incidental teaching is another behavior analytic techniques used to teach students skills as they occur naturally in the environment (Hart & Risley, 1968). The premise of this procedure is to create restricted access to a desired stimulus, which will elicit a need for initiation from a student (Luiselli, et al., 2008). Teachers can then prompt, elaborate, and reinforce the student towards proficiency. The behavior analytic literature shows

numerous studies documenting skill acquisition in a naturalistic environment (Charlop-Christy et al., 1999; Iwata et al., 2011; Sundberg, 2014; Sundberg, 2020).

Pivotal response treatment is another approach that a behavior analyst can implement by incorporating procedures that follow the student's lead and interest (Koegel et al., 2005). Steps in pivotal response treatment can result in decreased problem behaviors and increased desired outcomes such as language production (Mohammadzaheri et al., 2015). Researchers (Daly & Dounavi, 2020) have addressed the implementation of behavior analytic practices to improve skill acquisition when learning multiple languages. Expanding the verbal repertoire of students can be achieved through the implementation of evidence-based practices such as concurrent echoic training (Kodak, 2009).

Direct instruction is another evidence-based practice developed from ABA to support instruction (Watkins & Slocum, 2003). This approach to instruction is laced with high rates of student engagement, teaching to proficiency, providing corrective feedback and interactive motivational techniques (Watkins & Slocum, 2003). As mentioned, there are a variety of evidence-based approaches to behavior change that can be implemented by trained professional to support a student's BIP or IEP.

Campus Wide Reform

As stated earlier, schools are required to implement PBIS. Knowing the scarcity of behavior analysts working in public education and concerns that have been shared with untrained staff implementing behavior analytic principles, one could question if the effectiveness of district and school wide PBIS are impacted by those who train the district and their knowledge or lack of knowledge in ABA. Although I discussed the

requirements of positive behavioral interventions and support in Texas earlier, I wanted to share how having a behavior analyst employed with a district might impact these campus wide initiatives. According to Mays (2020), many researchers have not rendered favorable findings regarding the implementation of PBIS. Becker (2013) evaluated the effects of school wide positive behavior supports through a case study of an alternative public school's student outcome objectives (attendance rates, number of office discipline referrals, and dropouts). Becker (2013) suggested that school wide positive behavior supports did not result in positive changes. Becker expressed many contributions to the lack of gains: staff "buy-in," turnover, and difficulty in implementing in a transient community. These data help to understand that even though interventions have evidence supporting their effectiveness, there are many campus variables that may impede treatment fidelity. It would be inaccurate to say that PBIS is not effective, if in fact it was not implemented as it was designed. A behavior analyst supporting this initiative could help with ensuring accurate information is disseminated and principles of behavior are implemented with fidelity (Horner et al., 2010; 2015).

Professional Development

According to DiGennaro Reed & Henley (2015) employers are not routinely implementing best practices during professional developments. Teachers typically receive little support with implementing evidence-based practices (Locke et al., 2016). Robinson et al. (2008) conducted a meta-analysis and found that the greatest influence in effective teachers was the quality of professional development. The field of ABA is not limited to changing student behaviors; ABA principles can also be strategically implemented to improve professional learning (Drumb, 2018). Renshaw et al. (2008)

reported that by providing function-based support training to teachers and educators, participants increased their knowledge and facilitated more positive student outcomes within their everyday practices.

Despite the best intentions of professional developments, often if teachers in public schools are not afforded opportunities to practice or use the recently taught information, they are not likely to retain it (Forte et al., 2018). To address this concern, behavior analysts traditionally use a competency-based approach to professional development (Forte et al., 2018). This approach allows the behavior analyst to evaluate the effectiveness of their training by ensuring that participants have generalized their knowledge into practice. By using a performance and competency-based approach to professional development, behavior analysts require participants to role play or rehearsal new skills and demonstrate their proficiency prior to real-time implementation (Parsons et al., 2012). Behavior skills training (BST) is a common evidence-based instructional method of professional development that a behavior analyst may use to teach a new skill (Miltenberger, 2003). There are four primary components to BST: instruction, modeling, rehearsal, and feedback (Miltenberger, 2003). Dalton (2019) highlighted that appropriately trained staff, ideally a behavior analyst or a school psychologist with intensive training, are critical to train support teachers when working with students who exhibit challenging behaviors. Knowing what we know about behavioral coaching, a behavior analyst would provide an approach to professional learning that includes a component of rehearsal and feedback.

Researchers have documented that often teachers are not prepared to teach evidence-based practices or to disseminate instruction to paraprofessionals working with

students (Bubb-McKinnie, 2017). This lack of integration is primarily due to teachers and paraprofessionals not having access to ongoing and supportive behavioral coaching (Bubb-McKinnie, 2017). Bubb-McKinnie conducted a case study on bridging the gap from training to practice with one classroom. In this study behavior analysts and behavior analysts' supervisors provided coaching to paraprofessionals in the classroom recently trained in evidence-based practices. These interventions were taught through BST. Bubb-McKinnie (2017) shared that these practices are needed and necessary to increase student outcomes.

Researchers have documented the increase of implementation fidelity by staff members who were recently trained on communication interventions because of BST (Carnett, 2021). In addition to investigating reliability outcomes, researchers have also evaluated social relevance of using BST to teach functional skills through a telehealth model and determined that the process was feasible and acceptable to educators who attended the training (Carnett, 2021). When providing incidental teaching training through BST, teachers demonstrated implementation of quicker skill acquisition and longer maintenance. These results demonstrated the benefit of combining professional development with modeling, rehearsal, and feedback. Parson et al., (2012) found BST to be an effective evidence-based staff training approach. Further, researchers found that when data were presented to the staff, it promoted stronger treatment fidelity of the intended intervention. BST was also observed to be an effective method for training supervisory behavior analysts, on refining skill sets such as corrective feedback and distribution of reinforcement. Hawkins (2019) determined BST to be effective for behavior analysts to train staff in building therapeutic relationships with clients.

Andzik and Cannella-Malone (2017) reviewed 14 studies that included the pyramidal approach to train staff. A pyramidal training approach is when an expert trainer provides training to a practitioner who in turn trains another practitioner to implement with a client or students (Andzik & Cannella-Malone, 2017). In a public-school setting this could be a behavior analyst who trains behavior specialists, who then trains teachers to implement with students. Parsons et al., (2013) used the pyramidal approach to teach practitioners how to implement BST. Results of the study indicated that all participants improved their implementation from pre to post assessments and the staff they subsequently trained also demonstrated 100% or near 100% proficiency in implementing BST in their work setting (Parsons et al., 2013). In Andzik and Cannella-Malone (2017) researchers reviewed data from Tier 1 and 2 training to see how expert trainers impact student performance. In the literature review of Tier, I training the approaches varied vastly and researchers found that 28% of the articles included a rationale for working with students who have disabilities. Fidelity checks were mentioned in only 14% of studies, 86% of the studies included modeling practice for participants, 71% included rehearsal, 57% included role-play, and 93% provided coaching and feedback (Andzik & Cannella-Malone, 2017). In Tier 2 training all articles reported less modeling, role-play, and feedback (Andzik & Cannella-Malone, 2017). Overall, this study supported pyramidal training with all Tier 1 students making improvements, and 83% of Tier 2 participants also making gains.

Fidelity

For teachers to implement evidence-based practices, they need to have the knowledge and skills to do so with fidelity. Behavior analysts possess many skills that can assist district leaders with ensuring fidelity of interventions (Carnett, 2020), understanding function-based outcomes (Stoiber & Gettinger, 2011), and improving teacher (Collier-Meek et al., 2017) and paraprofessional efficacy (Forte et al., 2018). Behavior analysts can collaborate with school staff to guide interventions and support program implementation. In Pitts et al. (2019), two behavior analysts conducted function-based assessments and developed behavior intervention plans for individuals with disabilities. The behavior analyst provided training to the classroom teachers and teaching assistants on the intervention programs. The staff had no prior training in implementing strategies in ABA before they participated in this study. After the lecture style training, the behavior analyst modeled the behavior, and allowed for practice opportunities, and then provided feedback in the classroom. The behavior analyst provided campus support of 6.5 hours a week for training and feedback. Through this model, teachers and teaching assistants used skills in ABA to increase language, social skills, and academic instruction in reading, mathematics, and science while also decreasing problem behaviors (Pitts et al., 2019). Researchers also conducted social validity data and gathered that all teachers reported students benefiting from interventions in ABA. Researchers concluded from the teacher reports that these ABA practices did not place additional pressure on the classroom teacher.

Collier-Meek et al. (2017) demonstrated a model for behavior analysts to support a classroom teacher who is struggling to implement the student's behavior intervention

program. The steps described are as follows: (a) define the behavior and what environmental stimuli precede and follow the behavior, (b) observe what is currently occurring in the classroom, (c) review data and form a hypothesized function, (d) break the behavior down to behavior analytic contingencies highlighting the antecedent, behavior, and consequences, (e) consider alternative replacement behaviors and evaluate related contingencies, and (f) identify an evidence-based intervention procedures designed to address the targeted function (Collier-Meek et al., 2017). This article demonstrated how rigorous and intentional someone who is trained in the principles of behavior would approach behavioral coaching.

As mentioned, some districts hire behavior analysts who may serve in the capacity of a behavior coach. It is important to also consider how teachers feel about behavior coaching provided by behavior analysts. Drumb (2018) interviewed eight educators (composed of both general and special educators) to investigate their perceptions of a collaboration process with behavior analysts. These participants were elementary teachers from an urban school in Indiana, they were working with behavior analysts to decrease problem behaviors in the classroom. Teachers reported behavior analysts to be knowledgeable and the collaboration process with behavior analysts to be beneficial. Educators were able to learn new interventions to assist with handling challenging behaviors. Half of the teachers reported that they felt it would be beneficial to learn the underlying principles of behavior that apply to individual interventions. Teachers shared that modeling from a behavior analyst allowed them to implement interventions more easily and reported that they wanted more time to work with behavior analysts. Educators shared that at times they were nervous to implement interventions without the assistance

of a behavior analyst (Drumb, 2018). These data highlight the direct impact that a behavior analyst could have on the teaching community.

In another study, teachers reported that when provided with explicit training on functional assessments and the relationship to positive behavioral supports, they were more competent in implementing interventions than peers who had not been trained (Stoiber & Gettinger, 2011). As a result, trained educators reported more positive behaviors and fewer problem behaviors compared with educators who had not been trained (Stoiber & Gettinger, 2011). Appropriate evidence-based training has a direct relationship to improving teacher efficacy; therefore, professional developments should be intentional and include the principles of behavior.

Additional stakeholder training

Many professionals' perspectives have been shaped by the relative scope and sequences of their practices and it is essential that these uniquely trained individuals work together to ensure students are successful (Manlapaz, 2018). There are many skills that a behavior analyst possesses that could contribute value to other fields of education including speech and language, occupation therapy, and physical therapy. Further, behavior analysts do not need to limit training to teachers or paraprofessionals; their skill set can cross professions. Metzger and Gayman (2019) stated that the development of courses in ABA will benefit undergraduate psychology majors by increasing their ability to obtain knowledge necessary to shape behaviors of their clients. Researchers claim that undergraduate educators (Young & Martinez, 2016), paraprofessionals (Bowe, 2018), parents (Bagaiolo et al., 2017) and campus leaders could benefit from instruction in ABA.

Training in ABA transcends brick and mortar as parents of students with ASD were able to implement discrete trial training procedures in the home environment after watching a series of video modeling sessions (Bagaiolo, 2017). Parents were able to increase their knowledge of implementing ABA strategies and concepts and improve their performance when working with their own children (Heitzman-Powell et al., 2014). Turnbull and Turnbull (2001) claim that school districts do an adequate job meeting minimal requirements of parent involvement, but parents should be encouraged to engage more in the decision-making process for their children. Using their skills in ABA, behavior analysts have been able to work with families through online training formats to improve the families' routines, their child's behavior, as well as the parents' well-being (Pennefather et al., 2018). When campuses are working with families, they are developing stronger communities.

Training paraprofessional staff can affect student outcomes (Bowe & Sellers., 2018). There have been fidelity checklist developed to provide quick and effective feedback to educators. In Bowe and Sellers (2018), a behavior analytic approach procedural integrity was implemented. Researchers used a Performance Diagnostic Checklist-Human Services to identify fidelity concerns in an error correction procedure implemented by paraprofessionals and provided teaching sessions to decrease these errors in the future. All four paraprofessionals were able to meet proficiency criteria following the training.

Organizational Behavior Management (OBM)

Most educational research limits the function of a behavior analyst within an educational setting to supporting student behavior; however, there is an entire focus in the realm of behavior analysis literature around the behavior management of an organization. This focus has been coined organizational behavior management (OBM) and is a subdiscipline of ABA (Wilder et al., 2009). The OBM branch of study relies on the use of the principles of behavior to shape the social behaviors of an organization (Wilder et al., 2009). Wilder et al. (2009) grouped OBM publications into categories including: performance management, system analysis, and behavior-based safety. The work of OBM has included publications in human resources such as how to attract and maintain the most desirable employees, how to build networks, and how to improve productivity and efficiency (Cautilli & Clarke, 1999). Researchers have been able to change job satisfaction by pairing reinforcing consequences with job tasks to increase job task preferences (Green et al., 2008).

In an educational setting, behavior analysts could use principles of behavior to support concerns from campus principals, district superintendents, or other school leaders. With an increasing number of behavior analysts entering the field, many are applying the principles of behavior in OBM (Cautilli & Clarke, 1999). In the field of education, it is important that behavior analysts are not marginalized to only working with students who engage in challenging behaviors. Behavior analysts should advocate for their field and demonstrate how they could contribute to school leadership. Gravina et al. (2018) reviewed articles that were classified as organizational behavior management from 1990-2016. Researchers located 21 articles that took place in a public education

setting. Most of the data focused on treatment fidelity or engagement. In only one article there was discussion about administration, staff leadership and safety (Gravina et al., 2018). Oddly, studies exploring student or staff attendance and staff turnover were predominately absent in all journals. Researchers suggest more research is needed to address these public-school issues and to further evaluate the impact of treatment fidelity on student outcomes. This restricted literature is another rationale as to why it is so important to understand what behavior analysts are experiencing in public schools.

Potential Barriers for Behavior Analysts in Public Schools

Not all literature has favored behavior analysts in the public education setting. It is important to review these findings and investigate further. In this section I will review concerns with interpersonal communication and language between behavior analysts and other educational fields as well as concerns with conflicting expectations between the BACB and public-school job requirements. Lastly, I want to highlight the limited amount of research we have on the perceptions of behavior analysts who are working in public schools.

With an increase of behavior analysts working in public education, some school psychologists have expressed concerns about behavior analysts taking their positions (Rossen, 2016). Others believe it is an opportunity to develop a collaborative approach to problem solving (Rossen, 2016). Taylor et al. (2018) indicated that historically, behavior analysts struggle to demonstrate collaborative relationships with related service providers. The difficulty developing interpersonal relationships between staff and students affects the implementation of behavior interventions (Taylor et al., 2018). Behavior analysts often defer to scientific, behavior-analytic terminology when

describing processes, and this language often does not easily translate into informal language (Cihon et al., 2016). It is vital that behavior analysts use terms and language that teachers, paraprofessionals, and other implementers understand to promote effective implementation (Cihon et al., 2016). Too often related service providers spend time in disagreement with behavior analysts over terminology. For example, a speech and language pathologist may be working to increase a child's receptive or expressive language skills. A behavior analyst may be working on improving a child's *listener's responding* skills or *mand* repertoire. The targeted goal, however, may be the same, the interventions may be the same, but the terminology used to describe the interventions are different. A speech and language pathologist embeds evidence-based language interventions to students' programs to improve their speech and language outcomes. Many of these evidence-based interventions can be broken down into behavior analytic contingencies and are labeled a different term in the field of ABA (Manlapaz, 2018).

Foxx (1985) hypothesized that behavior analysts can lack fundamental interpersonal skills necessary to promote positive interactions and perceptions of behavior analytic services. Other researchers have also stressed this social deficit in more recent literature (Geller, 2014; Leaf et al., 2016). Behavior artistry is a term used to define seven interpersonal and communitive characteristics that could impact the outcomes of behavior analytic practices (Foxx 1985). These seven characteristics include: (a) establishing a rapport with clients; (b) focus on how the client is feeling about interventions; (c) sees the positive outcomes in supporting challenging clients; (d) exhibits a sense of humor, (e) is an optimist; (f) does not take client behavior personally; (g) self-actualizes and visualizes client success (Fox, 1985). Callahan et al. (2019) further emphasized that behavior

artistry is necessary and should be included in future studies as it affects outcomes and treatment programs. It is important that behavior analysts find common ground with other experts in the field such as speech pathologists and work with them to break down interventions, recommendations, and basic concepts into function-based approaches for students with significant disabilities (Donaldson & Stahmer, 2014). Rossen (2016) noted two concerns with the collaborations between speech pathologists and behavior analysts: a lack of understanding on how to collaborate with varied experts, and lack of time to collaborate. Slim and Reuter-Yuill (2021) are encouraging behavior analysts to interpret the interprofessional education collaborative framework through behavior-analytic lenses. This article includes the values of collaborative practices in cultural sensitivity and responsiveness as well as promoting empathy and compassion (Slim & Reuter-Yuill (2021).

Based on the data reviewed, there is a missing narrative about how behavior analysts feel regarding collaboration with staff members. Do they feel a part of the campus team, valued and respected? Are there systems in place to foster professional communication? Although there are many researchers revealing the success of implementing strategies developed from the principles of behavior in public schools, there is less published literature on the relationships and effects of behavior analysts on student and teacher outcomes.

Concerns with Dual Roles

Whenever combining multiple certification boards or governing bodies, it is important to understand that various organizations have unique expectations, and these principles could contradict one another. This concern could arise in a public-school

setting because behavior analysts must adhere to the district guidelines as well as an ethics code for behavior analysts. The Ethics Code for Behavior Analysts is designed to ensure the safety of all individuals (the implementer and those receiving benefits from behavior analytic practices). The Ethics Code for Behavior Analysts houses the foundational principles geared to promote appropriate professional conduct and guide behavior analysts in the event of ethical dilemmas (BACB, 2022). The Ethics Code for Behavior Analysts has been updated as of January 2022, and all those holding a BACB certificate are required to adhere to the code. This tool is composed of 6 sections: (a) Responsibility as a Professional, (b) Responsibility in Practice, (c) Responsibility to Clients and Stakeholders, (d) Responsibility to Supervisees and Trainees, (e) Responsibility in Public Statements, and (f) Responsibility in Research. Since behavior analysts must adhere to the Ethics Code for Behavior Analysts it is critical that school administrators are aware of these obligations to prevent potential barriers and conflicts. Based on published literature there are already a few specific guidelines that have potential to become problematic if school administrators are unaware.

The first area of potential concern involves section 2.13 Selecting, Designing, and Implementing Assessments. According to the Ethics Code for Behavior Analysts, behavior analysts are required to first assess the function of problem behavior prior to generating recommendations for behavior-change programs (BACB, 2022). This sequential process may be challenging to implement with the pace and complexity of problem behavior in public schools. Many districts are looking for problem behaviors to be mitigated quickly (Menendez et al., 2017); and it is important to investigate if behavior analysts are feeling any pressure from their roles to implement interventions

prior to conducting evaluations. One researcher has reported that behavior analysts may be asked to sign off on an intervention or a blanketed behavior program for students (Menendez et al., 2017). This request would violate a behavior analysts' responsibility to Clients and Stakeholders under section 2.14 Selecting, Designing, and Implementing Behavior-Change Interventions. Behavior analysts are required to develop an individualized and effective treatment plan (BACB, 2022). According to the BACB,

Behavior analysts select, design, and implement behavior-change interventions that: (1) are conceptually consistent with behavioral principles; (2) are based on scientific evidence; (3) are based on assessment results; (4) prioritize positive reinforcement procedures; and (5) best meet the diverse needs, context, and resources of the client and stakeholders. Behavior analysts also consider relevant factors (e.g., risks, benefits, and side effects; client and stakeholder preference; implementation efficiency; cost effectiveness) and design and implement behavior-change interventions to produce outcomes likely to maintain under naturalistic conditions. They summarize the behavior-change intervention procedures in writing (e.g., a behavior plan). (BACB, 2022, p. 12)

A blanketed program would violate multiple codes: including 2.01, 2.13, 2.14, 2.15. and 2.17. The constraints and requirements imposed by school districts may be problematic for ethical services, and behavior analysts could run the risk of violating the code of ethics if they try to assist campuses with immediate behavior support (Duroy, 2016).

Behavior analysts are required to consider a client-centered approach to behavior change systems, yet many behaviors analyst struggle with pressure from the district: providing quality service to a larger quantity of participants or the pressure of needing

problem behavior managed quickly (Duroy, 2016). Regarding section 3.12 Advocating for Appropriate Services (1.04, 1.05, 2.01, 2.08) behavior analysts must advocate for and educate clients and stakeholders about evidence-based assessment and behavior change intervention procedures. They also advocate for the appropriate amount and level of behavioral service provision and oversight required to meet defined client goals (BACB, 2022, p 12). The challenge with this code relates to funding. A behavior analyst in private practice is paid for by the client or the insurance company. In response to House Bill 1919, the funding for students who receive ABA services in most clinical settings is provided by insurance companies (House Bill 1919, 2007). Educational services are provided under IDEA and are required to be appropriate, however, as mentioned earlier, *appropriate* does not imply the most costly or effective treatment option. One stands to question, what would happen if a behavior analyst made a recommendation for an intervention or quantity of service and the school district does not feel it is necessary for the provision of *appropriate* services. This disagreement could be another pitfall for behavior analysts working in public school systems. Another concern when managing challenging behaviors could arise with behavior analysts being asked to aid in punitive approaches to behavior change. A behavior analyst is required to consider reinforcement-based strategies prior to the recommendations of punitive consequences, while campus-based staff follow the student code of conduct which outlines when aversive procedures are warranted.

Another potential barrier is the lack of a clearly defined caseload expectation. Behavior analysts are required to monitor the progress of clients/student's behavior-change programs (BACB, 2022). To monitor student or staff behavior-change programs

effectively, behavior analysts should only work with as many students as they can ethically oversee. This vague description could cause concerns as every student is different and the level of support needs is highly individualized. According to Graham and Miller (2021), there are currently no recommendations on what constitutes an appropriate caseload size for a behavior analyst in a school setting. Contradictory to public schools, the BACB has outlined caseload recommendations for insurance agencies and clinic managers. These guidelines need to be clear to campus and district leaders ahead of time to avoid potential conflict. In my experience, many human resources departments look at the quantity of students being supported by a behavior analyst, rather than a weighted system highlighting their actual case management. It would be important to ask the current practicing behavior analysts how their caseloads are developed, and how much input they have.

Lastly, there could be concerns with the recommendations of non-or limited research-based approaches to education and behavior. Menendez et al. (2017) published an article highlighting important ethical considerations that a behavior analyst may encounter when supporting rural public-school systems. One concern described the professional obligation of working with a team of related service personnel to support a student. There are many pseudoscientific practices that continue to be promoted within education, despite scientific evidence of their use (Capuano & Killu, 2021). Behavior analysts have an ethical obligation to provide their clients with evidence-based practices that are recommended from data and analysis. The ethical code also calls for behavior analysts to expose the concerns with implementing procedures that are not based on evidence. This approach may look contradictory and abrasive to an eclectic team. Young-

Pelton and Dotson (2017) recommended that schools work with behavior analysts to provide a supportive environment conducive to effective behavior-change systems. These collaborations require schools to understand and support the ethical obligations a behavior analyst must adhere to. Behavior analysts should provide training on the ethical uses of behavior-change practices to teachers, paraprofessionals, leaders, and other staff members to enhance the potential benefits of ABA (Young-Pelton & Dotson, 2017).

Staffing Limitations in Public Schools

It is apparent that behavior analysts serving in public education offer many contributions to the promotion of an effective behavior system in public education. Despite the need, many rural districts struggle to locate a behavior analyst who can provide direct services to their students and staff (Hamrick & Lock, 2020). To rectify this logistical restriction, behavior analysts are developing programs to spread behavior analytic initiatives in rural locations. For example, behavior analysts are providing transient services, such as the Mobile Outreach Clinic for students with ASD. The Mobile Outreach Clinic is a traveling clinic that can provide services to districts and families across West Texas (Hamrick & Lock, 2020). This outreach developed by Texas Tech University's Burkhart Center for ASD Education and Research works to decrease inequitable training opportunities in low socioeconomic and rural communities. The goal of this organization is to foster collaborative interventions designed between a student's home and school. The introduction to teletherapy is another increasingly important avenue to disseminate instruction on ABA. In another study, three teachers were able to successfully conduct trial-based functional analysis with competent procedural integrity after participating in one Synthetic Reality Lab training session (Vasquez et al., 2017).

With so few behavior analysts serving in public education, districts need to consider the possible impact this scarcity could have on evidence-based behavioral initiatives and practices. There are many concerns with campuses not having staff members who are a behavior analyst or have been trained in the principles of behavior from a highly qualified person (Demchak et al., 2020; Fielding, 2013). Though there are many districts who are not privileged to work with local behavior analysts at this time, it is essential to the field of ABA to better understand the barriers in expanding behavior analytic initiatives.

Perceptions of Behavior Analysts

There is limited data available on the perceptions of behavior analysts, which could be due to dualism (Ruiz, 2015). Some researchers separate physical attributes from mental and claim that they cannot be assimilated to the other (Robinson, 2020). Dualism is one of these assertions. In dualism there is a physical and mental dimension, but radical behaviorism asserts it is all a behavioral dimension. Therefore, self-reports and vocal verbal behavior are simply behavior. Although scarce, there have been a few studies from the perspective of behavior analysts. Duroy (2016) investigated behavior analysts' perceptive on equity concerns in public school systems. A major concern shared by behavior analysts in public school systems were their perceived inability to alter educators' behaviors. Many behavior analysts reported ethical concerns that needed to be faced due to a flawed system (Duroy, 2016). They also shared concerns with administrators resolving ethical dilemmas. Duroy (2016) was conducted in California public schools prior to the release of the revised ethical guidelines for behavior analysts. While this study homed in on equality, there continues to be a need for a broader understanding of the lived experiences of behavior analysts in public education.

Campbell et al. (2021) captured behavior analysts' perceptions of ASD treatment recommendations. Behavior analyst ranked ABA, positive behavioral support, and discrete trial instruction as the most effective treatments for all people. When looking at instructional methods the most endorsed as effective treatments, researchers found that behavior analysts supported Treatment and Education of Autistic and related Communication Handicapped Children, Picture Exchange Communication System, verbal behavior, and speech therapy. When trying to understand why behavior analysts' clinical supervisors were leaving the workplace, Desai-Bhakta (2020) described five factors contributing: salary, job satisfaction, supervisor support, professional developments, and reinforcement. Another qualitative inquiry was generated to investigate behavior analysts who worked with students with ASD and participated in a survey to indicate their perceptions of assessment tools (Mathewson, 2018). Researchers have determined that behavior analysts were more likely to use tools that they were familiar with than others that may have been newer or more popular. Unfortunately, limited studies are available on what behavior analysts are experiencing in public education. Being that these experts are well trained in the science of behavior and are serving in public education, they offer insight on how to support and shape educators and student behaviors.

Conclusion

Despite system reforms and campus behavior plans, Texas still has at least 1.2% of the student population receiving an in-school or out-of- school suspension annually. A teacher's ability to manage challenging behaviors is often described as one of the most difficult aspects of teaching (Taylor, 2011). Often, leaders in public education defer to a

punitive consequence to manage these challenging behaviors (Hatzenbuehler et al., 2019). To ensure high quality teachers and leaders, ESSA focuses on cultivating training and the professional development of all teachers and students in public education systems (Grissom et al., 2021). Under Title II, Part A funds are awarded to districts to recruit and retain highly qualified teachers, provide professional development, promote educator growth through mentorship, and reduce class size (U.S. Department of Education, 2016). Many campus administrators may need to consider collaborating with experts who possess skills in ABA to improve teacher efficacy.

Researchers have documented that some teachers are not prepared to implement evidence-based practices (Hamman et al., 2013) or to disseminate instruction to paraprofessionals working with students in the classroom (Bubb-McKinnie, 2017). Dalton (2019) highlighted that appropriately trained staff, ideally a behavior analyst or a school psychologist with intensive training, are critical to train and support teachers when working with students who exhibit challenging behaviors. Young-Pelton and Dotson (2017) recommended that schools work with behavior analysts to provide a supportive environment conducive to effective behavior-change systems.

For the public school system to be able to effectively serve the unique needs of all students, leaders need to be aware of and support the ethical requirements a behavior analyst must adhere to. Based on data released from the BACB, there is a small number of education-based behavior analysts in comparison to the number of districts in Texas. This discrepancy emphasizes the importance of investigating the roles of behavior analysts serving in public education and capturing the narrative of their shared experiences. Unfortunately, limited studies are available on the perception and

experiences of behavior analysts working in public education. Behavior analysts could help leaders understand why Texas is not seeing a significant difference in discipline behavior assignments. Further, behavior analysts could offer insight into barriers with the diffusion of knowledge in ABA principles across public education. To maximize a behavior analyst's impact and improve the outcomes of staff and students, leaders need to understand the barriers that behavior analysts face as well as accelerators for change.

CHAPTER III

Method

A phenomenological research approach served as the fundamental basis of this investigation. In this phenomenological study, I investigated the perceptions of behavior analysts working in Texas public education settings. This chapter describes the methods and procedures used to conduct this research. This chapter highlights the primary research question, outlines the research design, explains my role as the researcher, describes the targeted population, reviews of instruments, establishes the framework for the data analysis process, organizes the steps needed to ensure accurate data, and reviews ethical considerations required when gathering data from human beings.

Research Question

With few studies revealed in the literature review on the perceptions of behavior analysts and with no known studies conducted in the state of Texas, a narrative of the perceptions of behavior analysts, particularly in Texas public schools was warranted. The primary question that guided my inquiry was: How do behavior analysts perceive working in a Texas public education setting? I only elected to use one research question to allow for a wider scope of data and encouraged behavior analysts to openly share their experiences. The approach proved beneficial as numerous paths to future research are now warranted.

Research Design

According to Smith (2011), “The discipline of phenomenology may be defined initially as the study of structures of experience, or consciousness” (para. 4). A qualitative approach to understanding a phenomenon allows researchers to investigate what is

happening in the lives of individuals who are experiencing the situation first-hand. There are multiple philosophical perspectives in a phenomenology as outlined in Stewart and Mickunas (1990) and include (a) a return to a philosophical origin, (b) the removal of presuppositions (via the Epoche approach), (c) the intentionality of consciousness, and (d) the rebuking subject-object dichotomy.

It may appear unorthodox to investigate a behaviorist through the lens of consciousness. A philosophical debate of the construct of the human mind has baffled many philosophers. Rachin (2012) described consciousness as a term to explain abstract ideals, such as behavioral patterns. Concerns arise with the phenomenological self-examination or internal “reflection” of these abstract concepts (Rachin, 2012). Rachin labelled behavioral reflections as an overt relationship to environmental stimuli, and not the internal processes within an organism. He recommended the substitute of terms such as *behavioral activity* to describe overt behaviors and *neural activity* to explain covert behaviors. Rachin (2012) explained consciousness as “our long-term patterns of behavior, including sobriety, moderation, cooperation with others, morality, rationality, as well as the language that reflects (and at the same time imposes) their organization” (p. 51).

Noë (2009) challenged that the mind cannot be understood except through its relationship with the environment. When one considers the term *consciousness*, one often describes it as the tendency to talk to oneself about what is going on in the environment relative to us (internal and external stimuli). These behaviors give rise to what scholars’ call “qualia or subjective experiences” (Rachin, 2012, p. 53). Further, “if covert behavior is consciousness itself, consciousness cannot also be the perception of covert behavior” (Rachin, 2012, p. 54). Skinner (1957) concluded that language is acquired and maintained

through environmental contingencies, thus defining it as “a behavior reinforced through the mediation of other persons” (p. 2). With behavior analysts having knowledge of what ABA is and how interventions based on principles of behavior are being implemented on school campuses, they offer valuable insight needed to guide future recommendations and campus reform. Therefore, it is imperative that behavior analysts’ shared experiences are captured. To understand the experiences of behavior analysts working in public school, it is important to gather data directly from the behavior analysts. With public education being an eclectic field composed of individuals who identify with various theoretical beliefs, it is important to challenge what is known and consider alternative views of the world.

A phenomenological approach was selected to gain insight into how previous experiences and environmental contingencies have impacted a behavior analysts’ vocal behavior and perceptions of working in Texas public school systems and was deemed appropriate for this qualitative study because the focus of this research was on the perceptions of the behavior analyst as a single unit of analysis. One premise of phenomenological research involves identifying communal themes that arise from a collection of interviews. According to Moustakas (1994), data are gathered and then analyzed through a systematic procedure starting with narrower units of analysis which evolve into meaningful broad themes. The description will capture both *what* and *how* an individual (the behavior analyst) experiences a phenomenon until it reaches the *essence* or the point of highest development (Creswell & Poth, 2018). When considering this approach to understanding, I compared this analysis to the behavioral process of classifying items by feature, function, and class. This behavior involves a behavior

analyst classifying stimuli by their features, functions, and/or class. Behavior analysts often will work with clients or students to identify features of a stimulus that allows that stimulus to fit into or be excluded from a class of stimuli. This research process was similar, as I analyzed the verbal response data from participants for similarities and determined categories and themes that represented these data.

In addition, I used terminology that was understood by individuals who do not have an educational background in ABA. It is imperative that behavior analysts strive to foster stronger dissemination of principles of behavior and build better communication between experts in the field of behavior and those educators on the frontline when implementing educational and behavior practices. Therefore, I found it critical to investigate the perceptions of behavior analysts using processes and terms that more readily translated to those outside of the field of behavior. By providing common terms, this research could nurture a stronger understanding of the benefits of ABA for individuals who do not typically have a behavior analytic perspective.

Role of Researcher

My role in this research study was to capture the experiences and perceptions of behavior analysts who are supporting educators and students in Texas public school systems. I wanted to understand how behavior analysts described their experiences working in public education. I wanted to give the behavior analysts the freedom to share meaningful and beneficial experiences. As a researcher, I focused on creating an atmosphere where the interviewees felt they could openly share their experiences, successes, and failures without judgment.

As a behavior analyst who served in public education, I had to acknowledge my biases and experiences when conducting this study. I elected to use an Epoche (i.e., bracketing) approach to remove my individual experiences and perspective from this research and allow only experiences of the interviewed behavior analysts to be analyzed. Bracketing allowed me to bring forth and acknowledge my biases prior to conducting interviews and throughout the analysis portions of this study.

My biases included the feeling that administrators and campus behavioral support staff are often not provided with adequate training in ABA. All leaders want what is best for their students; however, most educators are not equipped to ensure the success of students who demonstrate challenging behaviors. I believe that a behavior analyst could significantly impact student and staff behaviors including but not limited to increased fidelity of interventions, development of more appropriate behavior intervention plans, more equitable learning experiences, more successful and appropriate professional development, increased staff health and job satisfaction, and more successful management systems for public education. I feel that behavior analysts working in public schools have many ethical challenges that act as barriers in ensuring effective implementation of evidence-based practices. I believe that by combining multiple certification boards or governing bodies, it is important for leaders to understand that various organizations have unique expectations, and these guidance documents may be misaligned.

To manage these preconceived biases, I offered member checks during this study to accurately capture the perceptions of the participants and not assumptions of my own. All transcripts were entered into Dedoose, which is a software program to assist with

qualitative analysis. The company's security features state that they take all necessary technical and organizational security measures to protect data from loss or misuse (Dedoose, n.d.).

Selection of Participants

To account for the limited number of behavior analysts working in public schools in Texas, I used a snowball method for selection (Levine, 2014). Identifying potential subjects would otherwise be challenging as there is not a data source revealing employed, certified behavior analysts by place of employment. Based on my previous networking relationships, I invited two participants to participate in this research study. From these initial contacts, I asked for recommendations of other potential behavior analysts. Before conducting the study, I verified the behavior analyst's credentials from the BACB registry prior to the initial contact. Once the active behavior analyst license was confirmed, I reached out to the participants via email to invite them to participate.

In addition to being a BCBA, I wanted to focus only on the state of Texas. By selecting to interview behavior analysts who are employed within the same state, I was able to consider this context while analyzing the data. Requirements of the participants included that they needed to be employed as a behavior analyst, behavior coach, interventionist, psychologist, or a behavior support staff and had to work in a public school district in Texas. Participants who did not hold a behavior analyst certification but were employed as a behavior analyst, behavior coach, interventionist, psychologist, or behavioral support staff for the district were excluded from this study.

Instrumentation

The primary instrument required for this study was me as the interviewer. Prior to each interview, the participants were provided with an electronic Qualtrics survey which included information such as age, ethnicity, number of years working in public education, number of years in their current role, number of years as a behavior analyst, their current job title, and identification of how they serve the district (e.g., direct services, indirect services, or both). All potentially identifiable information was stored on a password encrypted computer. Names were not collected; each participant was given a pseudo name to protect their identity.

Another instrument used was the interview protocol, as shown in Appendix A. The interview questions were developed based on a review of literature and were peer reviewed by two behaviors analysts prior to the interviews processes. In the interview, open-ended semi-structured questions were asked. This structure allowed for specific questions centered around the literature review and the research question, while not confining behavior analysts to yes or no responses. The open-ended questions were designed to elicit thoughtful dialogue that allowed me to better understand how behavior analysts have experienced working in a public education setting.

Data Collection

Due to evolving restrictions during the COVID-19 pandemic, I elected to conduct individual interviews via technology (Zoom) to ensure the safety of the participants. After gaining vocal informed consent, I scheduled the interview at a mutually agreed upon time. Each interview took no more than an hour and a half to complete. As the interviewer, I attempted to establish rapport through conversations prior to the interview

to promote trust and to gather more candid responses. These interviews were video recorded, and the original transcription were compared to the video recording to ensure reliability. Videorecording was selected primarily to aid in the accuracy of the transcription. As a scholar with a hearing impairment, being able to read the participants lips in their responses was critical to me ensuring an accurate transcription. A copy of the transcription was shared with the interviewee via an encrypted email to allow for alterations and elaboration. Once transcripts were verified, video recordings were deleted to decrease the likelihood of breaches of confidentiality.

To protect the participants, I used pseudo names. I did not request paper consent forms or signatures for consent (e.g., alteration of consent). There is no paper documentation as data files were stored electronically on a password-protected computer and password protected file that will be changed every 5 weeks for security purposes. Transcripts were stored electronically on a password-protected computer. All transcripts will be deleted three years after the completion of the project.

Data Analysis

There are seven distinct steps to the phenomenological process as outlined by Colaizzi (1978): (a) familiarization, (b) identification of significant statements, (c) forming meanings from the significant statements, (d) clustering themes, (e) developing descriptions, (f) producing the fundamental structure, and (g) seeking the verification of the structure. These steps will guide the data analysis of this investigation. I will review the process for each of these steps individually to assist in replication.

Familiarization

I used an individual inductive analysis coding process that began by entering each interviewee's data individually into the Dedoose software system. Once the transcripts were validated by the participants, I reviewed the transcripts and began the analysis process. The premise of the familiarization step was to become comfortable with the data. I closely read and reviewed each interview numerous times to achieve this relationship as recommended by others (Creswell & Poth, 2018; Kamau, 2014). Throughout this portion of the analysis, I engaged in an Epoche approach. An Epoche required me to reflect on bias or preconceived notions that could interfere with the data presented. I attempted to invalidate my previous experiences and extract the analysis from only the new data (Moustakas, 1994). Each time that I reviewed the data, I focused only on the data and attempted to not draw on my prior knowledge or experience. Again, I offered members checking to increase accuracy. Throughout this analysis, I recorded my thoughts and revelations through an audit trail.

Identification of Significant Statements

Then the next step was the identification of significant statements (Colaizzi, 1978). During the open coding process or first cycle coding, I broke the transcript data down into significant statements by using a line-by-line analysis (Kamau, 2014; Saldaña, 2015). These significant statements were composed of single words, crucial phrases, short phrases, and paragraphs (Kamau, 2014; Saldaña, 2015) that all held a singular meaning.

Formulating Meanings

I then summarized or abbreviated these data by assigning a meaning (i.e., codes) to every unit (Colaizzi, 1978; Saldaña, 2015). These codes were developed to standardize meaning and were collected and ordered in a codebook, which was designed to decrease overlap. Bracketing was the process of analysis that focused only on the research question and the data, extracting any preconceived notions. To complete this step, everything that was irrelevant, repetitive, or overlapping was deleted (Moustakas, 1994).

Clustering Themes

Once all data had received an assigned code, I began the next step which was clustering themes using axial coding. Axial coding was used to reassemble initial codes by organizing codes as they related to each other (Boeije, 2010). During this phase of coding, codes were synthesized and grouped together to form thematic categories (Merriam, 2009). Again, I engaged in bracketing to manage potential interference of my previous experiences (Colaizzi, 1978).

Developing a Description

During this step, I composed a descriptive analysis of what behavior analysts were experiencing in public education. This description included relevant data and embodied the themes developed from the previous step (Colaizzi, 1978). The descriptive analysis was then condensed into a composite description that captured the essence of the phenomenon (Creswell & Poth, 2018).

Fundamental Structure and Verification

The composite description was developed through data source triangulation. Data source triangulation refers to the processes of searching for relationships between the participants' data. I developed a grid listing all the themes derived from the study and cross examined each participant's experience with the outcome. Carter et al. (2014) share that by using data triangulation between multiple participants, a researcher can gather a broader understanding of a phenomena.

Trustworthiness and Researcher Credibility

To ensure a thorough investigation, participants were selected until interview data reached saturation. During the processes of phenomenological reduction during open and axial coding, I recorded my revelations via an audit trail (Lincoln & Guba, 1985). Kleijn and Leeuwen (2018) describe the audit procedure as a documented account of the auditee as they encounter the data. The premise of this procedure was to aid in linking interpretations to the conclusion and findings of the study (Kleijn & Leeuwen, 2018). The auditee will record feelings, notes, summaries, observations, and descriptions of analysis. The auditor will check for "visibility, comprehensibility, and acceptability" (Kleijn & Leeuwen, 2018, p. 1).

To develop a clear and sound interview instrument, questions were derived from data in the literature review. To minimize any leading or biased questions and promote clarity, all questions were presented in a semi-formal interview protocol that had been

reviewed by two other behavior analysts prior to any interview. These questions were shared electronically, and feedback was taken into consideration.

To ensure that accuracy of the data, I used members checking as a strategy to allow participants to determine if the interpretations captured an accurate reflection of their experiences and perceptions. Initially, after each interview has been transcribed, each participant was offered a chance to add, change, or edit their words. This check was delivered through an encrypted email transaction for data privacy.

Ethical Considerations

I did not anticipate any major concerns with the investigation; however, I noted that behavior analysts often juggle many responsibilities and have busy schedules that could have impacted their availability to participate in this study. I was able to avoid scheduling concerns by conducting the interviews at a time and location that was convenient for the behavior analyst. All participants were reminded multiple times of their rights to participate in the study as outlined in the interview protocol. I shared that there were no penalties associated with withdrawing from the study at any time. I was able to establish a confidential environment in which the behavior analyst could comfortably communicate their experiences. To protect their identities, I did not collect any documents with participants' names or signatures, or the districts names (where the participants are employed). All participants were given a pseudo-name. I recognized a level of vulnerability was required for behavior analyst to truthful share their experiences. I established rapport prior to the interview and created an environment of trust; I believe that these experts felt comfortable exposing their true experiences and perceptions. This

study was in alignment with the institutional review board at Sam Houston State University.

Summary

I explored the perspectives and experiences of behavior analyst working in Texas public education settings. This chapter described the methods and procedures needed to conduct this research. I highlighted the key research question, outlined the proposed research design, explained the role of the researcher, identified the target population and selection process, reviewed the instruments, established the framework for the data analysis process, and organized the steps needed to ensure accurate data. In addition, I explained the ethical considerations necessary for conducting this study with humans.

CHAPTER IV

Findings

What Are the Perspectives of Behavior Analysts Working in Public Education?

The purpose of this study was to add to the narrative and better understand the perspectives and shared experiences of behavior analysts who are working in public education. The research question investigated was, what are the perspectives of behavior analysts working in Texas public education systems. Through a deeper understanding of these individuals' experiences, more informed decisions could be made. This chapter highlights the perspectives of six individuals who serve K-12 public education in Texas.

Demographic Information of Participants

Initially I emailed two behavior analysts regarding the premise of this study and inquired their interest in participation, both elected to participate. Participants were then sent a link to input basic demographic information. Their behavior analyst credentials were verified from the BACB certificate registry website at <https://www.bacb.com/services>. I then scheduled a one-on-one interview with each behavior analysts at a convenient and mutually agreed upon time. A Zoom meeting link equipped with password protection and a waiting room feature was sent to the participants. At the end of their interviews the participants were asked if they knew of any additional behavior analyst who could potentially be interested in this research study. One participant provided contact information for another behavior analyst. In addition, I emailed another behavior analyst who no longer worked in public education but had many network connections in various district across Texas. From this contact three additional behavior analysts working in public education reached out to express interest

in participation in this study. All participants met the criteria for participation and their credentials were verified, demographic data were obtained, and interviews scheduled. Interview lengths varied but included: 53:25 minutes, 62:56 minutes, 62:26 minutes, 43:38 minutes, 44:47 minutes, and 32:56 minutes.

There was a total of six participants in this study. A report of the demographic information of these individuals are as follows.

Table 1

Participant Demographic Information

Participant	Gender	Years in Public Education	Ethnicity	Years Served as a Behavior Analyst	Job Title
Sarah	Female	15	Caucasian	11-15	Behavior Analyst
Augie	Female	19	Caucasian	11-15	Behavior Specialist
Martha	Female	10	African American	0-5	Behavior Analyst
Susan	Female	1.5	Caucasian	0-5	Interventionist
Tina	Female	18	Caucasian	6-10	Interventionist
Brian	Male	25	Caucasian	0-5	LSSP/Behavior Analyst

As noted in Table 1, all participants were BCBAs. Their backgrounds working in public education varied from 1.5 years- 25 years. Five of the six participants are Caucasian. Three of the participants have been employed as a behavior analyst between 0-5 years, one behavior analyst has been employed between 6-10 years, and the remaining two behavior analysts between 11-15 years. To protect the participants' identities, the age demographic information was reported as a range. Participants ages ranged from 36-60. Two of the six participants' job titles were formally described as a

behavior analyst and the remaining four participants supported Texas public schools, but their job title did not require a behavior analytic certification. They currently work under a broader job title. For example, they could be a district interventionist, but in addition they have a behavior analyst certification.

All six participants reported that they primarily serve the district through an indirect model. This model allowed the behavior analysts to disseminate behavioral knowledge to stakeholders. All three of these participants shared that if needed, they could provide direct services if indicated by a student's individualized education plan; however, at this time they did not have any students who required this service on their case load. Four of the behavior analysts shared that their primary roles were to support teachers and students.

Data Collection and Analysis

During the interviews, I followed a scripted protocol with 13 open-ended questions. These questions were peer reviewed by two behavior analysts prior to the initial interview. The protocol is in Appendix A and inquired about the experiences of behavior analysts in Texas public schools. The interviews were video, and audio recorded through Zoom and kept on a password protected computer until the completion of the transcript. All identifiable information was removed from the transcripts and pseudo names were provided. Once the transcript was generated, an email was sent to the behavior analysts offering the opportunity to review, edit, and elaborate on their transcript. The behavior analyst could elect to edit the transcript or leave it as is. The participants' video and audio recordings were deleted at that time.

Transcripts and demographic data were uploaded to the Dedoose software program. I then engaged in the Epoche process, to remove preconceived bias and rely on the data presented. The transcripts were reviewed multiple times prior to any decoding, and notes were taken via the audit trail and memo feature of the Dedoose system. Once I was familiar with the data, the coding process began. I used a line-by-line analysis to capture the meaning of each spoken statement. Individual statements, phrases, or thoughts were given a code. I followed the same process for all six transcripts. Once the initial coding was completed, I began the next phases of the analysis with 603 codes. The codes were converted to a spreadsheet where Phase 2 of coding began. During this process similar codes were grouped together, and some were renamed. Codes that did not have any relation to the study were removed. Repetitive words were also removed to improve the readability of the text.

Thematic Findings

To capture the narrative of these individuals, the findings were grouped into three categories as shown in Table 2: the culture of Texas public schools, and the identities of behavior analysts working in Texas public schools, and the experiences of behavior analysts surrounding ethics. A total of 10 themes were developed from 603 codes.

Table 2*Categories of Findings with Themes*

Category	Title	Themes
Category 1	The Culture of Texas Public Schools	A Culture of Reactivity A Culture of Burnout A Culture of Ignorance A Culture of Neediness A Culture of Limitations
Category II	The Identities of Behavior Analysts Working in Texas Public Schools	Burned out Valueless Powerless Hopeful
Category III	The Experiences of Behavior Analysts Working in Texas Public Schools Surrounding Ethics	Experiences with Ethics

Each of these three categories help to depict what BCBAs were experiencing while working in Texas public schools. This chapter will cover a further in-depth analysis of each category and the themes and subthemes that captured the perspectives of BCBAs in Texas K-12 schools.

In this section, behavior analysts described the type of cultures in K-12 regarding students who engage in challenging behaviors. Many themes emerged revealing a culture of reactivity, a culture of burnout, a culture of ignorance, a culture of neediness, and a culture of limitations, as shown in Table 3. All these themes captured a community in need of knowledge, support, and hope. The needs for behavior analysts were apparent and at times disheartening.

Table 3*Category 1: The Culture of Texas Public Schools*

Theme	Definition	Example Participant Quote
A Culture of Reactivity	Descriptions of a reactive approach to supporting students who engage in challenging behaviors	“And we just feel like we're floating and exposed and kind of being reactive”
A Culture or Burnout	Description of an environment. under emotional, physical, and mental exhaustion caused by stress	“They're [classroom teachers] at their wit's end”
A Culture of Ignorance	Description of a culture that lacks behavioral knowledge. Marginalization and misconceptions that arise from this knowledge deficit	“I mean, my admin today straight up, told me, she said, I didn't know what to do with that. And so, I think it's critical for them to understand at least the basics of behavior, so that they can support those teachers that are really needing it.”
A Culture of Neediness	Descriptions of a community in need of behavioral trainings and supports	“Lucky to figure it [how to support a student who engages in challenging behaviors] out on their [teachers] own- not just special education teachers, but also general education teachers, because these teachers are left to fend for themselves, and they don't have any idea of what to do [regarding supporting challenging behaviors]”
A Culture of Limitations	Descriptions of a community with difficulty developing appropriate LRE decisions.	“I feel like there's not a smooth transition of services there for the benefit of the student.”

A Culture of Reactivity

When describing the environment of a Texas public school system, all six of the participants specifically described the institution as reactive. The approach to supporting students who engaged in challenging behaviors, as well as supporting the staff who assisted these children, occurred after the child had exhibited problem behaviors. When describing her experiences, Tina shared that her role primarily was in “crisis management” focused on providing that immediate support. “Sometimes we literally get a text message saying go to ABC Elementary, now, a student just gave a teacher a concussion. I don't know the kid's name, go. And we go.” Sarah further explained that often she has been called out to support students with limited information about the student or the situation. “And so, you know, I don't really know, what my expectations are, I just know, I’m going to support the student.” These examples demonstrated a reactive approach to supporting behavior.

Brian described his experiences as, “we just feel like we're floating and exposed and kind of being reactive.” Tina also described a similar experience, “I typically do not get called in until it's really at its worse. We have resources on campuses that they [teachers] can use.” Susan explained, “Sometimes it just gets so bad before they ask for help. So, we need to figure out how to get in there sooner.” Brian expressed, “By the time we're called in, it's [student behavior is] much more intensive.” One behavior analyst shared that she does not feel her position was “designed to be that way.”

When behavior analysts are requested to provide support, they often felt pressured to perform quickly. Tina reported, “Like we are in crunch time. ARDs next week. The students banged his head open. Parents called an ARD. I need the data. I'm going to do a

functional behavioral assessment and generate a behavior intervention plan.” There is a sense of urgency at times that is unrealistic.

A proactive approach to supporting behaviors would require staff to anticipate outcomes based on data or previous observation, and then disseminate the necessary trainings, resources, and programs prior to problem behavior occurring. Being able to provide training and professional development was desired by all the behavior analysts interviewed. The behavior analysts shared that for staff or students to utilize their services, there was a referral process. This process typically occurred after a student engaged in challenging behaviors. Susan shared, “I would like to provide more training for teachers, we do provide some training, but it's, a lot of times when someone else requests it.” This reactive model can be extremely problematic to overwhelmed teachers and exhausted leadership.

A Culture of Burnout

Many behavior analysts described how educators, primarily the campus teachers, were “overwhelmed.” Susan shared, “I think some teachers just get overwhelmed early, and then their mind is closed to, to doing anything that I might have to suggest or to ask them to implement. They don't have time, or it's just too overwhelming.” Tina shared these teachers are “at their wit's end.” Martha shared, “Everyone I mean, everyone is struggling with [student behaviors] right now.” She further shared an example of supporting a classroom teacher. The teacher said, “Listen, I'm doing whatever I can do. I have 20 something kids. I have five kids that aren't labeled right now, but they're engaging these problem behaviors.” Martha explained, “the teacher is overwhelmed because she doesn't have time to deal with this challenging behavior while also teaching

the other kids in the classroom. And so that's unfortunate.” Being able to support students who engage in problem behavior can be physically and mentally exhausting, and behavior analysts have noticed that one of the biggest barriers in supporting students who engage in challenging behaviors is teacher burnout. Augie described it as, “They don't [implement interventions] because they're tired. That's one of the biggest barriers.” She added, “The teachers are worn out, and everybody's frazzled.”

When taking burnout into consideration, there is a lot of pressure on behavior analysts to evaluate how an intervention will be perceived by the teacher. To change their current teaching practices, they must be able to respond to feedback. It is critical to evaluate how much the teachers understand about behavioral principles prior to requiring them to implement behavioral strategies. Augie reported “if I throw too much of it [behavioral knowledge] at a time, it's too overwhelming for someone who doesn't work our science.”

Burnout was not reserved for teachers; behavior analysts also described the challenges that campus administrators are facing. Augie shared, “It's a lot on the principals to have to carry that load [handling discipline] in addition to all of their other duties.” By the time the behavior analysts are called in to support, some campus leaders were ready to have the students removed from the campus. The administrators were “done” with the behaviors. Susan shared a pressure to remove the student because the staff was burned out on supporting the child. “Administrators, just, again, want me to say, oh, this kid needs to be moved from my campus, and they don't want to hear that they need to do something different, because they already feel like maybe they've done everything.”

The Additional Pressures of COVID-19

To contribute further to burnout, educators have recently taught through the COVID-19 pandemic. Not only did they have to face the fear of contracting this virus themselves and potentially spreading it to their loved ones, and they also had to learn how to do their job remotely. Many schools and districts shut down or moved to a virtual learning option for 3 months up to multiple years. For many teachers, this transition meant they had to balance working from home while also attending to their own personal children and domestic responsibilities. Even though COVID-19 was addressed by the introduction of vaccines, social distancing, and masking, the impact on student academics, behaviors, and social skills still lingered.

Martha shared when students were able to return to school, they were faced with many new challenges; “by the time they [students] came back, it was just like starting all over again, for some of them.” Martha described COVID-19 as a virus that had “done a number on all of our populations, and mostly the young ones who elected to virtual options, instead of face-to-face.” When these young learners returned physically to school, the educational setting was new to them, and teachers were now experiencing new and more challenging behaviors. The behavior analysts reported that virtual instruction did not work for all students, especially younger learners with disabilities. Martha who worked primarily with early childhood students ages 3-5 shared that the goal of their district program was to provide early interventions to these students, to prepare them for an inclusive kindergarten setting. She shared, “In my opinion, these [students] that we have now are not ready for inclusion. I just felt like [the students] being online is what really hindered them because they needed to be here.” Martha shared that the

kindergarten population at her campus was one that was most impacted by COVID-19. She expressed interest in understanding these impacts of COVID-19 on the total referrals to special education; stating, “I would love to see what the rate of referral is, because I have had more kindergarteners [needing support] than any other population and it's kindergarteners that are undergoing evaluations for special education.”

Teachers are already pressured with teaching the curriculum, now that are starting from a bigger deficit. Augie shared there is so much “lost ground”; and Martha expressed, “we had to go back to the basics.” When discussing the transition back to face-to-face instruction, Sarah shared,

I had one student, who had a really hard time even just coming in the building, he couldn't stay for the whole day, it was difficult. And I feel like a part of that was because he just hadn't had that exposure from a younger age due to COVID.

Novice behavior challenges emerged from the COVID-19 pandemic including difficulty with the required face coverings. Sarah shared, “Everyone was wearing a mask and there was one time, when we got called out to a work with a student, because he wouldn't wear his mask.” Some students had excused doctors' notes exempting them from this mandate, but this exemption promoted more risky behaviors for the educators working with these students. Sarah shared that at the end of that day, the teacher reported to her that the student she was working with had a medical exemption from the doctor. Sarah shared with the teacher that she “couldn't make him wear a mask if he has a doctor's note that says he can't wear masks.” The teacher was uncomfortable with the increased risk of possible exposure.

Supporting the Whole Child

The most documented concern among the behavior analysts was the effects that the lack of peer interaction had on student behavior. Augie shared, “Kids don't know how to socialize with each other. They don't know how to wait. They don't know how to take turns. They don't know how to be a friend. All they know is social media.” Susan further shared “[students are] not as socialized as they were... You know, it's just a whole different breed of kids.” Brian shared, “Definitely, social skills have been impacted. I'm seeing a lot of traumas, and trauma responses [post COVID-19].” Susan discussed,

I just have to believe that COVID has a part in that, they haven't been out playing in those early critical years with other kids, they don't know how to socialize, they don't know how to share, they don't know how to take turns, their very first instinct is to just hit if they want a toy.

The behavior analysts described how after COVID-19 there has been a more apparent need to support the “whole” child. Augie shared, “There's a lot of social emotional needs around here, that are not being addressed, and it shows in the systems. The systems dynamics are really affected, and COVID really brought out the worst of it.” Augie commented,

We had a lot of mental health issues with depression in our teenagers. And so, if you look at the big picture as a behavior analyst, that's mental health. You know, I'm not a mental health professional, but I work hand in hand with them. You know, you have to because the impact is huge.

Augie shared a child's exposure to trauma “affects student behavior - immensely.” Susan described a “Big push that I've seen is just a reteach of social skills... We've done that in

special education for a while, and now we're needing to do it general education-across the whole population.” This added need could be contributing to the burnout of teachers and leaders.

Teachers were being expected to carry on with their previous expectations while promoting social experiences with novice barriers (facial coverings, social distancing, increased sanitization). Mental health is not only impacting students, but also plaguing teachers. Augie explained, “We're dealing with mental health of teachers, teachers are leaving the field right and left. They're quitting mid-year.” Tina described the impact COVID-19 had on staff shortage for her district:

We as you know, we have the biggest shortage and staff. We had nearly 30 new special education positions that never got filled in our district, which effected student-to-staff ratios. Now, we have teachers leaving or taking a leave of absence. Is that because of COVID? Probably, I do think more teachers retired during at the end of the COVID year and last year, which left the shortage.

The results of COVID-19 left a rippling effect that reached out into the community. Many behavior analysts shared a need to rebuild relationships and reevaluate needs after COVID-19. Augie shared “The effects of COVID is that human touch was just really missed.” She shared that by communicating through technology she encountered many challenges such as lagging networks, unintentional interrupting, and increased distractions. Augie shared these challenges impacted communication in the IEP meetings and led parents to being more distant with campuses. When working with students who require prompting and assistance, many parents were asked to take an active role in supporting students through virtual learning. This demand coupled with the other

expectation on the parent could have muddied the relationship between home and school. Augie described how she had to provide additional trainings to parents to ensure they could accurately support a student's individualized education plan from home, and she shared that some parents were "at a loss." The parents wanted to know how to help their children but were overwhelmed. When students returned to school, educators were hit with the demand of trying to make up compensatory services while addressing the current services and needs. Martha shared that a lot of parents wanted in home training post COVID-19. She shared this request was especially difficult "Because of the pandemic, everyone really was owed compensatory time as far as in home training was concerned." So much need exists, but there is not enough support. These needs stacked on to overwhelming workloads contributing to more burnout.

The Evolution of Behavior and Teacher Burnout

Despite the challenges resulting from the COVID-19 pandemic, some behavior analysts described how the pandemic cannot be primarily blamed for the increase in challenging student behaviors. Brian stated, "So you take COVID out of it, it [challenging student behaviors] is still getting more difficult." Susan shared that before COVID, "Every year, I have said it's getting more difficult." Tina described a similar experience, "Would it [challenging behavior] have continued to get more difficult without COVID? You know because I feel like before 2020, every year, ...kids are getting harder and harder." Brian shared the evolution of challenging behavior has continuously been getting worse: "as the generations go on, there are changes. And I don't know if it's due to COVID or not maybe the kids are changing, and public schools are staying the same." Brian talked about how technology has replaced many social

interactions, increased instant gratification, and caused more concerns with delayed reinforcement. These environmental changes are impacting the classroom, as students do not have the skills to wait, take turns, or listen. These new behaviors are causing students to struggle in traditional classrooms. A culture of burnout is leading to overwhelmed educators, who are tired, confused, and unsure of how to support their students.

A Culture of Ignorance

A lack of knowledge can be labeled as ignorance, and according to the behavior analysts working in Texas public education, there appears to be a culture of confusion and uncertainty regarding how to support students who engage in challenging behaviors. According to statewide data, many students in the Texas public education system are engaging in challenging behaviors, but what was more concerning is the limited knowledge and evidence-based resources that educators have to support these students. This section will capture the knowledge gaps observed by behavior analysts at the classroom level, leadership level, and by behavior specialists hired to support students who exhibit challenging behaviors. Then this section will cover many of the misconceptions of applied behavior analysis as well as the roles of a behavior analysts in the field of education. It will also cover the observed marginalization that could be impacting the expansion of behavior analytic practices.

Knowledge Gaps in the Classroom

Numerous observations have revealed significant knowledge gaps in the implementation of evidence-based practices used to support students who engage in challenging behavior. Martha described how teachers lacked behavioral supports, “they don't have enough... support to handle behavior.” Tina reported she has observed general

education teachers using the IPAD to avoid or remove some of the aversive problem behaviors. Tina explained by providing the student with an IPAD, the student was not engaging in problem behavior, so the teachers were able to continue teaching the other students. Martha shared a similar observation, calling IPADs a teacher's "saving grace." She reported often when observing students in their general education classroom, she has witnessed other children engaging in challenging behaviors. "And every single time I kid you not, they [the students] are in the corner doing something that rest of the class is not during-either on an iPad or coloring." Susan said, "Just even today, that happened, it's more frequent than I anticipated, it has been surprising to me how ...little administration and teachers in a behavior classroom know about ABA." The concern is when the student is engaging in some form of undesired behavior, instead of teaching the appropriate behavior or decreasing the inappropriate behavior, an IPAD is being used to eliminate problem behavior. The IPAD is not being used to allow the student to access the curriculum or engage in an activity with their peers, instead is used as a distractor. Therefore, problem behavior will likely strengthen, as the student has a history of escaping the academic demands and engaging in desired activities. Teachers who are supposed to be implementing evidence-based practices to support student behavior are confused on how to do so.

Sarah discussed how self-contained programs often adopt behavioral structures or evidence-based practices; however, she reported that many teachers do not understand or implement these practices correctly. Some of the classrooms that Sarah supports are supposed to implement features of the Treatment and Education of Autistic and Communication Related Handicapped Children (TEAACH) or as Sarah described it, "the

TEAACH methodology that's not even in place” when she observed the classrooms. The behavior analyst also described misuses of reinforcement and the misaligning of interventions to assessment data.

Concerns with Assessments and Behavior Plans

The development of a functional behavioral assessment and behavior intervention plan has been delegated to many different professionals. According to the behavior analysts interviewed, some districts have special education counselors develop these documents and others rely on student support specialists, behavior specialists, behavior analysts, or even the classroom teachers. These documents are the foundation to understanding how to support students who are engaging in challenging behaviors. Unfortunately, behavior analysts are noticing many concerns with these documents, when they are developed by individuals who have limited training in the science of behavior analysis. Sarah said, “And so I think that a lot of administrators have people writing FBAs [functional behavioral assessments] and BIPs [behavior intervention plans] like special education counselors, but they don't have a good understanding of behavior and functions of behavior.” Sarah further described reading reports where “control was a function, but which, you know, it is not a function of behavior.”

Augie discussed how many teachers are expected to implement reinforcement; however, these educators do not even know what schedules of reinforcement are. Tina said that “In general a lot of people want consequences for behaviors, punitive consequences”, and what they do not understand is that behavior occurs for a reason. Tina described how many teachers send students to the office as a “punishment”; however, the student’s problem behavior is reinforced because the function of their

behavior was to escape or avoid the academic demand. Based on this analysis, teachers and administrators are likely to see repeated offenders in the office seeking “punishment.” Brian shared, “To be honest, I feel like...if we are running our BIPs with fidelity and if [we] have great FBA...but I don't think we're there yet...we have a long way to go.”

Knowledge Gaps in Leadership

Sarah shared administrators have reached out to her for support with discipline: “I need to know what to do [regarding discipline].” Susan stated, “I mean, my admin today straight up, told me, she said, ‘I didn't know what to do with that [behavior].’” Susan continued, “I think it's critical for them to understand at least the basics of behavior, so that they can support those teachers that are really in need of help.” When functions of behavior are not apparent and consequences are implemented, teachers and leaders could unintentionally reinforce problem behaviors. Sometimes they are confused on how to help their campus teachers. Susan shared, “And so even today, a principal said to me, ‘I need to know what to do for my core team that goes [out to help] when there's a behavioral or physically aggressive episode in this one behavior classroom, I need to know what my role is.’” She also shared that most campus principals notice when there is a problem, and they do accept that the staff needs training. Martha stated, “But I just think the main point is even administrators, everyone, needs to be trained on how to deal with problem behaviors.” Susan also shared, “I wish that we would have more trainings available not only for the teachers, but for the admin because admin definitely play a role-teachers look to them.” Campus leaders have many responsibilities and pressures including handling student discipline. Augie shared that at times administrators are

worried because they are not as versed on the laws regarding students in special education and discipline. Many campuses leaders are not as familiar with characteristic of students with various disabilities and how some behaviors can be a manifestation of the student's disability.

Knowledge Gaps in Behavior Support Specialist

Leaders will often turn to behavior specialists or interventionists to assist with understanding how to support students who engage in challenging behaviors. Susan shared that in her district, "There aren't as many general education interventionists as there are special education interventionists. And there are a couple that are really good, but there is some who ... don't have any formal behavioral training." Martha questioned, "I don't even know, like, what credentials they're [behavior specialists] supposed to have." The behavior analysts who were interviewed raised many concerns with the lack of knowledge observed by behavior specialists who have not been trained on the principles of behavior. Tina described that once when working with a behavior specialist, the behavior specialist was not even aware of the different functions of behavior. This situation was problematic as understanding the function of the behavior is critical to providing an appropriate intervention. Even if a behavior specialist has claimed to understand functions of behavior, there are many "inconsistencies across the board as far as what they identify as the function of behavior." Brian described this problem as "a barrier at the campus level, when you have those behavior liaisons working with students, and they feel like they're implementing, you know, planned ignoring or a break, and they're actually implementing the exact opposite...they're actually reinforcing the target behavior." Susan described how interventions "could be more effective if they [behavior

specialist] match function to consequence.” She shared that these behavior specialists often have many positive skills; however, they struggle to understand when to implement what procedure.

Without functional alignment, behavior specialists are less likely to assign a functionally equivalent intervention. Tina shared how some behavior specialists “really want to harp on non-evidence-based strategies” or “pseudo treatments.” Susan also described their treatment recommendations as “willy nilly.” Augie added, “And so, a lot of times the things they implement aren't necessarily applied. They're not necessarily evidence based, like in our realm [applied behavior analysis]”. Further once they make a treatment recommendation there are additional concerns with providing effective trainings. Many behavior specialists are not well versed in evidence-based practices to use when conducting professional development. Martha expressed a concern that teachers are not receiving adequate training to effectively implement behavior intervention plans.

Ignorance Leads to Misconceptions

The behavior analysts interviewed shared many misconceptions about the field of ABA. There is also confusion as to what a behavior analyst is, and what their roles are in public education. Susan described how administrators often place a lot of pressure on the behavior analysts; she shared “so they know that I'm this behavior specialist that comes in and either waves the magic wand or I tell them that the kid needs to go somewhere else.” Susan further explained that this is a grave misconception. There is no “magic wand.” Changing behaviors takes time and often many tweaks before a plan can be effectively implemented.

A lack of understanding in the roles of a behavior analyst have led to other misconceptions. Brian discussed how campus leaders often looked to him as a “gate keeper” of least restrictive environment. He stated that he wished administrators knew that this was not his role. Brian shared that if he was called in to assist a campus they should, “treat the student as if there was no other setting. We need to try and make this [environment] work.” He shared that he provides strategies to implement and support the student’s behavior plan. “So, I think, seeing myself as a gatekeeper or red tape, that’s really the misconception that I want to get rid of, and hopefully, it will go away.” He further explained that placement recommendations are the responsibility of the IEP team. He is there to ensure that the campus has all the resources and supports to ensure an accurate implementation of the student’s educational plan has been tried prior to consideration of any change in placement. Tina echoed Brian stating, “They [campus administrators] see us as the gatekeeper of the next step. Which we’re not, it’s an ARD [annual review and dismissal] committee decision.” Four of the behavior analysts interviewed mentioned that the campuses often want to consider alternative settings prior to exhausting all strategies. Some mentioned campuses not wanting to try any more interventions or considering minimal progress as not sufficient. Tina added:

Campuses are so quick to move them [students] to another campus. One of the campuses I’m with now, we just had an initial IEP meeting for a student. We helped to develop the FBA and the BIP. We met to go over the BIP, so everyone’s [all staff] was doing the same thing and four weeks later, they’re [the campus administrator] saying, hey, we need a staffing, we think he needs a behavior intervention classroom at another campus.

Tina shared the student was making progress, but it was not at the rate the campus deemed appropriate. Susan described an example at one of her campuses, where the student was not demonstrating mastery quick enough. She shared that the expectation from the campus administrators was unrealistic, “So you know, if I go in on a Tuesday, and he's averaging 140 minutes a day of physical aggression, then by Friday, he's got to have no aggression, or they want him off the campus.” As the behavior analyst supporting the student, Susan was able to graph the data and share a visual representation and encourage continued effort for the student to remain on his campus. Augie shared, “Just because the kid is in their office every day does not mean they're ready to go to a behavior unit.”

Ignorance Leads to Marginalization

When leaders do not understand the roles of a behavior analyst, it can lead to accidental marginalization. A common misconception is that behavior analysts only work with students who are on the autism spectrum. Martha shared that behavior analysts can support any behavior; “I'm like, we deal with anything that is living and breathing and you can observe it. We [behavior analysts] can do it [support any behavior deficit or excess].” She later said,

If there is a need, regardless, taking all the labels away, if someone is engaging in a behavior [that needs to be increased or decreased], then there's a need for us [behavior analysts] always, no matter what, period. That's basically how I would tell anybody because I just think they [teachers and school leaders] just put us in this one category -of we just deal with autism.

Further, behavior analysts are often marginalized to problem behavior. Martha said it best by sharing, “Okay you do problem behavior, go do your thing. But I’m like, we can do so much more than that.” Behavior analyst can be trained to support any socially relevant behavior.

A Culture of Neediness

All the behavior analysts indicated a strong need for their services in the Texas public education system to ensure the effectiveness of evidence-based practices and behavioral initiatives. These behavioral practices impacted a variety of stakeholders including students, teachers, administrators, related service providers, and parents. This section is designed to highlight the key contributions described by the behavior analysts interviewed. It is important to note that supporting behavioral initiatives can benefit multiple stakeholders simultaneously, and the presentation of this section was divided by the immediate beneficiary. For example, if a behavior analyst supports a student by developing a BIP, this plan benefits the student directly even though it also impacts the teacher as they witnessed the behavioral change on the educational environment. In contrast, if a behavior analyst provided training to the teacher on how to implement the evidence-based practices to a student, then the teacher would be the primary beneficiary even though the student also received benefits. This section covers how a behavior analyst supports schoolwide interventions, students, teachers, related service providers, administrators, and provides other duties as assigned.

Supporting Schoolwide Interventions

Supporting behavior analytic practices and interventions was a requirement described by all participants interviewed. Because most campuses are required to

implement a schoolwide positive behavioral program, one question on the interview protocol asked specifically about the behavior analyst's experiences with these large-scale programs. A few behavior analysts shared that they are not directly involved with the campuswide programs. Augie described schoolwide interventions as "valuable time savers." These programs are designed to present united expectations. This approach allowed everyone to be on the same page using similar language. Tina shared that at her campus, "the entire school is speaking the same language- even the cafeteria workers, our custodial staff on campus, our secretaries in the building, everyone." The behavior analysts described how campus leadership and principal buy-in impacted the success of schoolwide behavior interventions. Augie described some of her campuses as "Zen" and others as "out of control." She shared that, "when it's [school wide behavioral interventions] done well, it impacts the overall culture of the building, when you walk in it just feels different."

Unfortunately, a few behavior analysts described many concerns with adoption of schoolwide interventions. Augie classified some campuses schoolwide interventions as "poorly" implemented. She also pointed out that there seems to be a misconception that if schoolwide interventions are in place, then handling problem behaviors should be "easier." She shared that "PBIS is not easy" however, the program can have a positive impact on student behaviors and an overall impact on the school culture. She shared that by working with mental health experts and implementing "restorative conversations and collaborative problem solving, I see lower incidences of in-school suspension and out-of-school suspension." She also shared that she has witnessed the CHAMPS program implemented and done well, but the key to the success was in consistency and buy-in.

Other concerns noted included a need for more intensive instruction and support for students who required TIER-III or even some TIER-II interventions. Susan shared that some students required “more individualized, immediate or more frequent, either reinforcement or antecedently teaching of the appropriate behavior”. The most challenging aspect to providing this individualized instruction was to locate staff who are well versed in supporting these challenging behaviors. This highly qualified professional could provide the teachers and other staff members with the support that they need to implement appropriate schoolwide and individualized interventions.

Supporting Students

When describing the type of students the behavior analysts supported, all six of the behavior analysts worked with students who met the eligibility condition of autism spectrum disorders. Tina shared that when supporting students, “it can range from our lowest needs or highest needs.” She described the range as supporting students in a functional life skills classroom, to student in a behavior intervention classroom. Some behavior analysts described how they provided direct support to specific programs. Brian started out as a behavior analyst supporting students housed at a restricted campus. This setting was designed for those individuals who routinely engaged in moderate to severe problem behaviors. Martha currently works for an early childhood program designed to prepare students (who typically have autism or an intellectual disability) for an inclusive kindergarten setting. Susan works with students in special education (aged 3 to 22). Sarah described her role as primarily in “behavior reduction” and supporting students in programs that are more restrictive than the general education population. Brian described his peer behavior analysts as the individuals who are, “in the trenches, rolling up their

sleeves and trying not to get punched.” All the behavior analysts’ roles had subtle differences from one another.

All the behavior analysts discussed supporting students in various capacities; however, none of them claimed to provide direct services to students at this time. Because one of the behavior analysts, Brian, was also hired as a licensed school psychologist, he shared that he does most of the FBA and BIPs for the students on his caseload. Susan shared that campus-based staff typically develop the FBAs and BIPs in her district. If they struggle with the development of a FBA or BIP, or there is an ineffective plan, then she supports them. Susan would then develop a more detailed FBA or at times even a functional analysis (FA). She would generate a BIP from the assessment data and then train the staff on how to implement the procedures and interventions. Sometimes she will train the teachers to develop the FBA and BIP themselves. Tina mentioned that as an interventionist, she is often called to observe a student and provide recommendations for the campus staff to try.

Supporting Teachers

When asked to describe their primary roles when working in a Texas public education system, five of the six behavior analysts shared that supporting the teachers was their main job function. Martha shared that unfortunately many teachers are “lucky if they can figure it [how to support a student who engages in challenging behaviors] out on their own- not just special education teachers, but also general education teachers, because these teachers are left to fend for themselves, and they don't have any idea of what to do [regarding supporting challenging behaviors].” Augie felt that the teachers were “reaching out for help”, and the behavior analysts’ roles were to provide the

resources and trainings to help teachers be more effective educators. Brian stated that his position was a “consultative role”, and Susan described herself as a “resource” for teachers. Regardless of the terminology, supporting the staff appeared to be a priority to the behavior analysts interviewed and valuable considering the burnout observed from a reactive model.

Pairing is a strategy described by many behavior analysts to develop positive relationships prior to the implementation of an intervention. This step was deemed necessary for supporting teachers as well. Augie stated that many times she had to provide the teacher with a time to vent about their frustrations, so that she can gauge where the teacher was emotionally and mentally regarding receiving support and feedback. Augie continued “in order to collaborate you've got to be brave enough to have crucial conversations and have those hard discussions.” Many times, the teachers are stressed and incredibly busy. Martha shared that even though she is primarily a program specific behavior analyst, she was there to “support the teachers.” Sarah mentioned it was critical to develop “good relationships” with the teachers she was working with. The stronger the relationship and the more trust and respect that there was, the easier it was to have authentic conversations and provide genuine support.

Training Teachers on Principles of Behavior and Behavioral Procedures. The behavior analysts shared that one important responsibility they had was to share the benefits of seeing behavior through a behavior analytic lens. Augie said, “the advantage of ABA is, you walk in with a, like a three-dimensional perspective.” She explained, that being a behavior analyst trains you to remove yourself from the emotional aspects and evaluate a behavior in relations to the environment. The behavior analysts all mentioned

various trainings that they had provided to the staff on behavior analytic topics including behavior reduction strategies, functional communication, preference assessments, how to conduct FBAs and BIPs, function-based interventions, the uses of visual supports, program specific trainings, supporting schoolwide programs (Multiple Tiered System of Supports/Positive Behavior Interventions and Supports/Response to Interventions), data collection, evidence-based practices, reinforcement, extinction, and other trainings derived from the science of behavior. Augie mentioned providing small group trainings on behavioral interventions or individualized student supports during the campuses learning committee meetings. Augie talked about, “working through group contingencies-how to do that, and still keep the emphasis on positive behaviors versus using a punisher.” Susan mentioned the behavior analysts in her district have provided training modules for teachers on how to gather data on antecedents, behaviors, and consequences of targeted behaviors.

Providing Evidence-Based Practices in Professional Development. Of the six behavior analysts interviewed, five of them discussed various topics that they have provided training on and the evidence-based approaches they used when administering these trainings. Specifically, they mentioned the use of behavior skills training (BST) when providing professional development. Martha shared that all her trainings follow a similar format; “I give instructions and model, they roleplay, and myself and other behavior analysts give feedback. The point is, that they [teachers] can take these strategies, and embed that within their classroom.” Susan mentioned time constraints sometimes hinder the rehearsal and feedback steps of this model but that the goal is to present the material to the staff using an evidence-based approach. She described how the

uses of technology have allowed for quicker feedback and virtual modeling. Augie mentioned that when behavior analysts are active and on campuses, more challenging interventions can be implemented such as compound reinforcement schedules. These interventions have been used to change student behavior quickly and effectively.

Many times, the behavior analysts have gone into classrooms to provide fidelity and treatment integrity checks. The behavior analyst checks to see if evidence-based practices that have been recommended to increase an appropriate target behavior or decrease inappropriate target behaviors. The behavior analysts discussed an overall deficit in proactive or antecedent based interventions. Sarah mentioned wanting to provide more training on antecedent interventions such as the development of stronger effective functional communication systems for students. Both Susan and Brian mentioned they have often witnessed a misalignment with interventions to the function of the problem behavior. Aside from supporting students, all the behavior analysts have in this study provided support to teachers.

Supporting Related Service Providers

An interview question was asked to evoke conversations around working with other service providers in the district. All the behavior analysts shared that working collaboratively with related service personal was vital. Sarah mentioned that whenever any recommendations had been shared with the teachers, they were also presented to the related service personal. Susan shared that she communicates a lot with in-home trainers, occupational therapists, speech therapists, and licensed specialists in school psychology (LSSP). Since every student has a different level of need, Tina shared, “as far as collaboration with related services, it's constant, it's ongoing.” Augie mentioned that there

has often been confusion deciphering between a behavior or a sensory need. She described how it was important for the behavior analysts and the occupational therapists to work together to ensure that all the students' needs were met.

Supporting Administrators

Sarah described how supporting campus administrators was critical but could also be challenging. She provided an example of how administrators lack behavior knowledge and can reinforce the problem behavior of a student. For example,

You're in there telling the teacher, oh, don't do this, you'll reinforce the behavior, but administration has been called in and they... give the student a lot of attention and take them to their office... exactly what I've been telling this teacher not to do.

School administrators have a lot of authority and power in their buildings. Both a behavior analyst and principal obtain a master's level degree, however, the final say often rests with the administrator. Sarah shared that some administrators struggled to receive feedback from the behavior analyst. Sarah said,

How do you approach an administrator and say, hey, I don't think that's what we should be doing... while respecting their kind of authority in their school and not undermining them in front of the teacher... it's a real kind of balancing act sometimes.

Susan shared that, "I have asked for more training for administrators. Every year, it never has reached the top of the agenda for principal training." Regardless, the need is there. Administrators need to be trained in the principles of behavior so that they can provide appropriate support to their teachers, staff, and students.

Other Duties as Assigned

In many professional employment contracts, there is a statement *and all other duties as assigned* to capture any jobs required by an administrator that may not be outlined in the job description. Outside of the consultative module of support, three behavior analysts discussed supporting the district's extended school year program. Tina shared, "the team [of interventionists] is amping up to organize and make sure everything's in place for extended school year services for students." The behavior analyst were the professional who did the hiring, because of their close relationships with the staff. They have seen what the teachers were capable of throughout the year and could make recommendations for who could best provide services throughout the summer. Augie also taught a class throughout the year; "I also teach Crisis Prevention Institute, nonviolent crisis intervention." Tina shared that she is also a curriculum-based instructor. She helps provide evidence-based practices when implementing the curriculum.

A need for services, training, and support was apparent by all the behavior analysts interviewed. The competency of the professional providing support to students impacts the quality of services provided. A behavior analyst can provide training and support to many stakeholders, while improving the fidelity and assignment of appropriate evidence-based practices.

A Culture of Limitations

When working with students who are in special education, the IEP team must discuss what constitutes a free and appropriate education for that individual child. One concern that occurred throughout the interviews was the recommendation of a student's least restrictive setting. The law requires students to receive services in a general

education setting to the maximum extent *appropriate*, and again, this important statement was followed by the term *appropriate*. Appropriate is used to allow for flexibility and individualization, but what if the decision makers do not have enough experience with supporting students who engage in challenging behaviors? The behavior analysts have noted four concerns that could impact an appropriate placement recommendation. In this section, I will discuss these concerns as (a) biases that lead to inappropriate least restrictive environment (LRE) recommendations, (b) the lack of data, (c) the desire to move environments too quickly, and (d) the concerns bridging private and public schools.

Bias That Leads to Inappropriate LRE

Determining if a student has an appropriate academic environment is not an easy process, but it should be individualized and based on a student's needs. The public-school leaders have added pressure from the state to improve inclusive practices. Martha shared,

A lot of kids are getting put into these gen ed classrooms. Because from my understanding, I think Texas is like getting dinged, as far as a lot of kids, on the spectrum, or ID, that they're getting put into like, a self-contained classroom. So, there's so many kids getting referred to all these other programs, when they want these kids to put in general ed.

On the opposite end of the spectrum, students are being placed in a more restrictive environment because they are not *ready* for a general education setting. Martha shared that, "even if they [the students] have in-class support that [is typically like] 30 minutes of in-class support... [out of] an eight-hour day, that's nothing." There are students who need more than the services the ARD has agreed upon. The fact is when making

individual decision it should come down to what the student needs, but there are many biases that are impeding these decisions.

Where is the Data?

Making data informed decisions is a way to remove bias and make more *appropriate* choices. Behavior analysts have been called to assist with making data informed decisions. Augie stated, “So when do we go to ARD [annual review and dismissal] to say something's not working? Do we wait till the annual [ARD meeting] or do we start pushing [for a special review meeting]?” She will then encourage the campus to review the students’ progress. “Okay, let's meet again in three weeks, where's the data?” She described that providing data has been a challenge for many campuses. Sarah also noted that there were many concerns with data collection. “That's also part of the problem, they're [teachers] not even, you know, updating the data.” Then she further explained how many teachers will populate data from *recalling information*, “then they'll remember all the data [later].” Sarah stated, “Well, I think the biggest conflict, I've had [has been] the amount and type of data that's collected is way less than what I'm used to; and that I feel is appropriate to make decisions based off of.” Susan described how she had to guide the teachers on “how to collect the data, add phase change lines, so forth walking [teachers] through programming, and then fading once they're making successes on their behavior plan.” Augie described how she had to train staff on various types of data recording that was more realistic for an educational setting, such as partial interval recording. Martha shared that, “[teachers are] just not comfortable taking data.” Without data, biases can impact the placement decisions of many students.

Quick Fix

Sarah described how many administrators feel pressured to fix challenging behaviors quickly, especially when a student was physically aggressive with another classmate. Despite the pressure from the state to reduce in-school and out-of-school alternative discipline assignments, Susan described how many administrators were getting creative with discipline assignments to avoid state reprimand.

My district has decreased [the number of] students identified with special needs [receiving assigned disciplinary consequences]. They're [students in special education] considered out of placement if they don't receive their services when they're in an ISS [in-school suspension] and OSS [out-of-school suspension] and are only allowed that 10-day window. So, we've been creative, and created a special education setting that they have access to antecedently, but also consequently to behavior, but they're still getting their services. So, when three or four years ago, a student would have gotten two days of ISS, and it would have counted in the report ... that's not reflected anymore, because they're going to a different setting... So that could be why [there is a decrease in alternative assignments]. I think some of the increase could be ... it used a lot for persistent misbehavior.

Persistent misbehavior would likely occur if there was not an effective intervention plan in place to support the student. Supporting students who engage in challenging behaviors is not easy. Susan highlighted how she had witnessed administrators assigning more days of OSS to allow time for the campus staff to recuperate. Susan described an incident,

Well, if a student is so significantly aggressive, they're in a self-contained class for behaviors, and they just tore the teachers ACL and required to be restrained on the floor... So, principals will suspend them for the next two days, so that we as staff can come together and figure out the appropriate plan.

Sarah also doubted the state-reported decrease in the number of students receiving disciplinary consequences as per the TAPR. "I doubt that number is even accurate".

Sarah described how administrators call home, "basically she doesn't tell them he needs to go home for the day, but that's what ends up happening based off of that phone call and it's not recorded as a suspension." The behavior analysts described how limited data, unique educational settings, and parental conversations could skew the TAPR data. Sarah shared,

I feel like the reason that I get called out is because that campus or that classroom really wants that student...moved off their campus and moved out of their class.

The administrator doesn't really have anywhere to put them [the student] for the day, or they feel like oh, it's going to be too much of a hassle to leave them in that classroom and they put them in in-school suspension.

When behavior analysts have been involved in these cases, they have been able to use data-based approaches to guide decision making. Augie shared an example where she had to use the data to prove that it was not time for a placement change. The principal tried to say that the student was not making progress, and Augie shared "well actually, if you look at the data, it's still as intense, but it's less often." Teachers and principals need behavior analysts to assist with providing data-based approaches to educational decisions.

The Concerns Bridging Clinics and Public Schools

When considering services, a student needs to be successful, there are challenges with deciphering needs between a private versus a public setting. The philosophies of these institutions are vastly different. Private ABA programs are grounded in the science of behavior whereas public schools allow teachers to have autonomy in adopting learning theories and approaches. This can be problematic for a teacher when an IEP requires a student to receive interventions grounded in the principles of behavior. The behavior analysts described how teachers are confused and often do not have a basic understanding of behavior analysis. Susan shared that at a clinic, “I can perceive that the people [behavior analysts and registered behavior technicians] are signed up to be there. And they want to learn the science of it, because they're in [or went to] school for it”. Susan shared that staff at the clinic “speak the same language, and they have data sheets everywhere, and they know the students and their programming”. When it comes to a public-school setting, Susan shared that, “they just want a quick fix and almost all the time, it's not behaviorally sound.”

Martha shared that one of the greatest concerns for students with autism was, “they need to learn how to communicate.” She described how early intervention was key, “we're here to build those skills of socialization, communication, life skills, you know, potty training, all those things. So they go to regular kindergarten, and they already have those skills, and they can carry on with the other teacher.” Many students do not have the functional skills necessary to be successful in a general education setting without support. Sarah said, “I'll go into classrooms . . . I have a high schooler that has absolutely no form of communication.” A lack of communication can cause many concerns with learning

content. Augie discussed that without language, students struggle with theory of mind, which impact one's ability to relate to others and understand social dynamics. Sarah described that the program in a private setting were more closely aligned to what the child functionally needs, whereas the educational setting looks more at the child's academic needs. Sarah shared an experience:

I've worked with a private client who had graduated from public school and had no communication method, ...we got her a device and within 30 minutes of just working with her, she was able to answer all kinds of questions.

Despite the need to focus on academics, some students need more. Sarah felt strongly that focusing on a student's ability to communicate is "it's just a matter of autonomy for our students, as well as respect."

Services provided in a private setting are often different than those in a public-school environment. Augie stated, "In a classroom, you just can't [provide the same intensity you can in a clinic]. In a clinic, we don't do 20 kids at a time, we might have a study, but we're still doing it [providing services individually]." Funding is different for most private settings as services are either funded out-of-pocket or through an insurance company. Therefore, these insurance companies review plans to ensure that there is a functional need for the ABA services and therapies.

Many students, especially aged 3 to 5, have received ABA therapy prior to kindergarten and are now transitioning into a public-school setting. The IEP team meets and considers previous services and supports and then the initial public school education IEP is adopted. This transition was described by the behavior analysts as "challenging." Developing goals was a difficult task when students transition from a private to public

setting. Susan shared, “there have been difficulties in prioritizing goals, they come to us [from a private setting] with 46 goals, and then we are presenting 12 total.” Brian has had to work with private clinics before to review services that were previously provided and see what could be feasible in an educational setting. Augie has also supported a student transitioning to public school. Augie shared her process:

I'll take a report like a VB-MAPP [Verbal Behavior Milestones Assessment and Placement Program], printout goals from a clinic, and I'll incorporate it into the to the FBA process...it's a big narrative for what we do. I'll incorporate it into background so that we recognize the skills that they're working on in the clinic. And if I see a way for us to generalize it in the setting that we're in, I will pull those forward into our behavior intervention plans or goals.

Augie described a “gap” where an outside service provider could work with campuses to aide in transitioning from a private to a public setting, but many districts are not always open to this idea. “I feel like there's not a smooth transition of services there for the benefit of the student.” Augie shared that her district is “real cautious about who can come into the district” to serve students. Many behavior analysts do not make a transition to work with school districts because they cannot bridge the gap between the clinic setting and the classroom setting. She shared the importance of bridging the current gap to ensure that all students received what they needed. Brian shared that in his previous out-of-state position, “there had been some talks about some specialized programs, and maybe like bifurcating it into clinic based and school-based programs. And I think that would be wonderful.” Overall, there are many limitations that could impact a child's

LRE, and it is critical that IEPs are individualized and consider how to best serve the student.

The Identities of Behavior Analysts Working in Texas Public Education

Now that the behavior analyst have captured the K-12 educational environment, it is important to understand how these behavior analysts perceive themselves and their contributions to public education. Many themes emerged revealing their feelings of being burned out, valueless, powerless, and hopeful. These themes shown in Table 4 represent how behavior analysts perceive themselves and their roles in the current educational setting.

Table 4

Category II: Identities of Behavior Analysts Working in Texas Public Education Settings

Theme	Definition	Example Quote
Burnout	Feelings of emotional, physical, and mental exhaustion caused by stress. Contributors to stress; time constraints, lack of staff, and isolation.	“We’ve just been spread so thin.”
Valueless	Description of a lack of identity in the role of a behavior analyst, and feelings of not being valued.	“One thing that really just kind of hurts my heart a bit is- going back to the educational piece and understanding- I don't know that everyone understands what our role is.”
Powerless	Description of a lack of authority given to behavior analysts working in schools. A reliance on others (teachers and staff) to implement interventions and programs.	“I guess powerless in some ways, because of our training, we're used to having a lot of control [in a private setting] and then having to go in and consult with teachers and with educators in settings that we have very minimal control over.”

(continued)

Theme	Definition	Example Quote
Hopeful	Descriptions of how behavior analysts can help public schools. Discussions of the potential for change given more behavior analysts to support.	“I definitely feel that behavior analysts have so much potential.”

Burnout

As described earlier, a culture of burnout plagues public education. This culture is no different for the behavior analysts supporting Texas public schools. Time constraints, the scarcity cycle, and isolation have led behavior analysts to join other professionals in experiencing burnout. A cause-and-effect relationship has not been investigated; however, the behavior analysts described how these factors have led to a feeling of burnout.

Time Constraints as a Contribution to Burnout

One universal concern that all the behavior analysts shared was the limitation of time. Many behavior analysts described how time constraints were attributed to the reactive service model. Despite the ample knowledge a behavior analyst has in how to support students who engaged in challenging behaviors, time barriers affect the services and supports that behavior analysts could provide. Martha stated, “there's just not enough time. I feel like, I have constraints on my time.” Sarah described how she does not “necessarily get to spend that amount of time with each student that maybe would be beneficial for that student,” and continued, “I don't have the ability to do that [due to time constraints].” The lack of time can have an adverse effect on the services and supports provided. Despite a desire to foster communication with administration, Augie shared she

does not often have the time to “visit with a campus leadership team which is a little challenging.” She also must prioritize her services because as she described, “I don't have time for that [additional trainings].” Tina shared,

Ideally, the way it used to work was you would have an interventionist come in, and they would stay with you for a half a day, even a day, maybe even more and help train -coach-model-guide until you get that behavior kind of under control, then you fade that support. And right now, what we're all doing is we're going in, we're trying to make it to every case, at least once a week, which means we're going to two or three or four campuses a day.

Tina described how she cannot always achieve everything that she needs to do. Augie shared that like many K-12 professionals, she had to bring work home “a lot.” Susan described how time constraints have impacted the training she provides. “I would say that I can use BST [behavior skills training]- I'm probably able to do it 60% of the time. She shared that she cannot spend too much time modeling due to other obligations that she has, such as attending an IEP meeting. Susan talked about wanting more time to provide better feedback and support. Susan described time as, “It's not existent. Time just isn't [there].” She explained,

If I was talking to a friend that worked in a clinic and was like, I think I want to go to public school. I think the one thing that I would say is that it's not what you dreamed about when you're in school [graduate school]. Now granted, I started this position before getting my behavior analysts [certification]... I came into this, like, I'm gonna have fidelity checklists. And so, when I go in, to do a follow up observation on Johnny, I'm gonna be able to really do this checklist on the

implementation of it [the intervention]. And, you know, you come across all these forms, and all this stuff, that integrity of the implementation of, of interventions, and it just doesn't happen that way. I mean, sometimes I write a BIP for Johnny and I don't see Johnny again.

Susan described how despite having ample resources, time did not allow her the opportunity to provide the feedback and fidelity checks that she would have liked to.

Brian portrayed a similar experience with time:

I think the other behavior analysts in our district felt the same way...we're so busy, that a lot of times, it's I need you to implement this, and they're [behavior analysts] just passing them [teachers] strategies, or they may get an email [with]...the recommendations, you have to write something up and implement it.

And I'll check in later if things don't go well, like that's typically how it works.

Brian mentioned that if there was more time or more staff, they could ensure that everyone was on the same page and well trained to support the students.

The Scarcity Cycle and the Lack of Attraction Contributing to Burnout

As the need for support outweighs the number of hours in the day, like many other professions in K-12, there are not enough behavior analysts to provide adequate services and support to staff and students. Not being able to provide high quality services as needed might lead behavior analysts to experience burnout. “We are short staffed everywhere”, Martha shared. Tina described it as another barrier, “We’ve just been spread so thin.” Brian shared that public education would continue to have a difficult time employing behavior analysts for many reasons: the pay, the lack of authority, challenges competing with private settings, and the burnout experienced from not having

enough resources available. He shared that the “family friendly schedule” is “pretty much the only advantage in-house [in the school] over clinic.” Brian shared that to employ the best behavior analysts; districts need to “attract them, we have to have a spot where they feel successful and valued. A positive work environment.” In some situations, school districts are in a scarcity cycle, and need more behavior analysts to provide services and supports to K-12 students and educators but cannot hire new behavior analysts due to current working conditions. The lack of trained staff may be contributing to the burnout of behavior analysts who are currently working in Texas public schools.

Isolation as a Contribution to Burnout

Another barrier to retention and employing high quality behavior analysts is isolation. Augie stated, “I feel as though, I’m alone on the island...it’s hard.” Isolation might contribute to burnout as behavior analysts do not have the social connections that they need to engage in behavioral conversations. Augie described how she was often alone in supporting staff, which was different from when she worked in a clinical setting. In a clinical setting she was given a planned time for discussions and feedback among the behavior analysts. Without these professional conversations, a behavior analyst working in a public setting often must seek guidance and support outside of the district network. Unfortunately, networking among peers has been deemed challenging for many K-12 behavior analysts as they felt alone with limited avenues for professional growth. Further, when it comes to training and professional learning, the behavior analysts are required to find their own professional growth opportunities.

Behavior analysts reported feeling isolated from their peer behavior analysts and from the campus community. Martha shared that even being housed on a campus, that

she is often left out of campus initiatives, trainings, and meetings. When asking about her campus' schoolwide interventions, she shared, "I have no idea because like I said, our programs are housed within a school. I'm assuming they have a schoolwide intervention. If they do PBIS um, I don't know how successful they are." Martha also shared that she was often not included in the IEP meetings for her students. "So, I don't sit in the ARD unless they asked me, but it's not required of me. I guess that's another barrier."

Tina shared that if she had limited networks to other behavior analysts working in public education, it would likely impact her approach to behavior change. She shared,

I probably would be uber conservative if I didn't have someone to consult with. And I think I would probably even reach out and try to find someone, whether it was the person that supervised me or in the behavior analyst's community to talk it through...If there's a question, I'm going to reach out for sure. We've been airing on the side of conservatism.

Tina shared that she has other behavior analysts she can consult with in her district but many of her peers do not have this opportunity in neighboring districts.

While a direct causation with burnout cannot be determined, all the behavior analysts in this study discussed a feeling of loneliness and isolation. Without a strong place within the school system's dynamics, it might be easy for a behavior analyst to feel alone. Behavior analysts were burdened with time constraints, lack of personnel and resources, and felt beleaguered when supporting students and staff. They described experiencing burnout and feeling overwhelmed and they wanted to do more than what they currently could do.

Valueless

Value and worth are important when determining one's identity. When executive boards and human resource departments are determining how to allocate financial resources, they evaluate the value of an individual. Unfortunately, without strong representation, many leaders do not even know what a behavior analyst is or how they could be valuable to a district. Augie said it best, "I don't even know if human resources know our value." Unanimously, all the behavior analysts discussed that there is a lack of identity for behavior analysts working in public education. Tina shared, "One thing that really just kind of hurts my heart a bit is . . . [not] everyone understands what our role is." Susan agreed with, "they could benefit from more training on my role, they have actually a limited view of my role."

Martha shared than many proactive initiatives do not take place because, "They don't know who we are. No one knows... I think a lot of principals don't even know what a behavior analyst does." Augie shared that she has worked with campuses and "they just want me to discipline kids. And that's not my job." Sarah shared that there is a need for more clear expectations, "I feel like as a whole, there should be like, kind of a better understanding of how, you know, how we can support each other, and behavior analysts and campuses, and kind of what my role is. What my capabilities are." Without a strong identity, behavior analysts in this study do not feel that they can be as valuable to the district.

There could be a few reasons for the lack of identity described by the behavior analysts interviewed, and one is that there is no universal job description for the role of a behavior analyst. Brian shared that his position was, "being itinerant and covering, you

know, up to 60 schools, it's just variable.” Most of the behavior analysts described consultative, indirect models of support as their primary function. They all mentioned variation in job responsibilities. Augie shared,

Alright, so in all my positions with what I do, I've never had direct services, I work with teachers to [on how to] work with the students. The only time I will do something direct is like a teacher shortage, like I'll jump in and help do some lessons and then jump back out. But we don't do direct services.

Sarah shared that when job searching, she found that every district position was different. “I don't know if their roles [other district behavior analysts] are similar or different. I’ve interviewed for a job in a different district and their roles, how they were going to use a behavior analyst, was much different.”

Another possible reason for a lack of identity is the variability of interest and experience the behavior analysts offer. A behavior analyst can assist with any behavioral excess or deficits that they have established competency supporting. Just like other professionals, every behavior analyst has tactics and skills that they are more versed in. The individuals’ strengths could cause muddiness in terms of a universal identity. Tina described her strongest asset as “collaboration...the way I interact with staff and get their input.” She described her interpersonal skills as a relative strength that impacts her success. Augie shared that her strength was supporting students who are oppositional defiant. Augie referred to her skillset as her “ninja power.”

Powerless

Like all professionals, the quality of teachers and leaders are variable, and campuses are “only as strong as their weakest educator”, shared Augie. There were many concerns presented by the behavior analysts regarding the lack of behavioral knowledge that teachers and leaders have. This situation was extremely concerning when those educators were required to support a student’s IEP. Further, some educators are not receptive to a behavioral approach and refused the support offered from the behavior analysts. The behavior analysts discussed trying to establish buy in, but ultimately if the teachers or paraprofessionals refused their help, they were powerless. This section will highlight how behavior analysts can feel powerless. The reality is that behavior analysts are witnessing many IEPs not being implemented perhaps because of burnout, lack of knowledge, or close mindedness.

Despite the knowledge gaps educators may have, there is always potential for change and growth. Tina provided an example of the difficulties that arise with training low-motivated teachers. “I have been in [the classroom] modeling a first/then [visual aid] for her three or four times...it was kind of shocking that I'm having to do that much work for a veteran teacher.” Tina shared, “You have your really strong behavior teachers who are just, you know, marching right along and doing really well” and then you have teachers who struggle to support students who exhibit challenging behaviors and are not receptive to support. Tina described how frustrating it can be to work with teachers and leaders who do not want to change. Tina shared that the success of the behavior analysts relies on the implementation provided by the teachers and leaders.

What the teacher will do when I leave, I can be in there a day, two days, three days, you know, and model all of the things but when I leave, it really comes down to what the teacher is going to continue to implement. And so that's hard. That's hard to walk away and know that that teacher is not gonna do one thing I've asked her to do. The kids are going to continue to plummet, and then they're going to have to go to another classroom. And that's sad because it wasn't a kid problem. It was a teacher problem.

Brian shared that being a behavior analyst in a public setting makes him feel “powerless in some ways... we're used to having a lot of control [in a private setting] and then having to go in and consult with teachers and with educators in settings that we have very minimal control over.”

Close mindedness

Tina shared that there are educators who are not open to change. “And then you know, you get the other part -where they're [teachers] forced, some teachers will be forced to be in a training.” Even if teachers are forced to attend trainings, you cannot make them receptive to the material presented. Tina shared those teachers would be distracted during trainings, “they're on their phones, or whatever.” Brian shared that many teachers have been closed to feedback.

That was a bit frustrating, and the receptivity...I guess welcoming you get from teachers vary as well, some of them really wanted to help and with others, you're very much intruding on their turf, and they knew best and even though the student wasn't succeeding, they weren't open to feedback.

Sarah shared that there were many teachers who welcomed her support, but there are others,

And I've got teachers that, you know, will do the opposite, where I've provided all these materials. I make these suggestions, and I come back to visit after a week maybe. And my handwriting is still the handwriting that's on the first/then board. So, I know, I know, you [the teacher] haven't used it.

There have been times when Augie was unsuccessful supporting a teacher because the teacher refused to change: “And when that doesn't happen [there isn't buy in], I finally have to go to my supervisor, and go, I'm done. I have tried everything; this teacher does not want my support.” This close-mindedness from teachers and leaders have led behavior analysts to wasting valuable time and feeling powerless. To mitigate this loss, behavior analysts described a need to create cultural *buy in*.

Buy in

Buy in starts with an awareness of the role of the behavior analyst and an understanding of how a behavioral approach could benefit the student and the teachers. Gaining buy in starts with district and campus leadership. Sarah shared that she has worked with campus principals who have stated, “I don't believe in ABA.” And “In fact, one administrator I met, that was the first thing she ever said...She said, don't think she's fixing to tell me what to do.” Sarah described that some campus leaders have their own ways of handling behavior, and “They don't want to be told anything by me.” Brian shared that the campus leaders' approach to ABA has an impact on student success. Brian described that some administrators have an “old school” mentality, and other administrators “recognize they have things to learn or have already had lots of experience

and have bought into, you know, positive approaches.” Brian shared that, “My goal and my mission is to get some buy in from them [teachers and administrators].” Once behavior analysts achieve buy in, they often see success. “Because of that buy in, I’m seeing more and more growth in the admin in the big picture”, Augie shared. Teacher buy-in is another hurdle. Augie noted, “it’s very important to have buy in from your teachers...getting the teachers to understand this is a tool that keeps you calm.” If the behavior analysts can establish buy in, they report higher levels of accountability from the teachers and leadership.

Lack of Accountability

When teachers or paraprofessionals do not do what the IEP has mandated, who is holding them accountable? Tina shared, “it’s a letdown when you go in and the teacher is done with the kid . . . I can tell within five to 10 minutes of talking with a teacher that ...[it]is not going to make a difference.” Since the behavior analysts are essentially powerless, Brian stated that “someone needs to be accountable” for the services and support of students who engage in challenging behaviors:

So, I would say that’s the biggest, the biggest stumbling block for me is the accountability part...There’s this IEP document that says you need to do it. And they [teachers or paraprofessionals] still don’t do it. And that’s the campus that could be the teacher or the paras. And what is the accountability when they don’t do it? It’s lacking. And I think I will say this, I don’t miss all the lawyers in the other state, but it did hold people accountable a little bit more and made life much more difficult if you had a campus wide culture where you weren’t implementing things.

Another issue is, given that there is a knowledge deficit, who is providing the training to the teachers and staff to ensure that they are prepared to support students? Augie felt that the accountability falls on the campus administrator. “We also must have admin [administrators], that are going to require that teacher to do their job. Some teachers do it, some teachers don't.” Brian stated that if the administrators are not strong in supporting student behaviors, then, “They need someone with expertise in it [behavior]”, to support their staff.

To take this matter one step further is the question of administration accountability; who is holding the principals accountable? Brian shared that whenever behavior analysts ask questions that require evidence, it holds the principals more accountable. He shared, “principals usually get their way regardless, but it's really uncomfortable for them when they have to face a lot of questions, ...I think more and more, we're gonna see that that trend, hopefully.” The behavior analysts described a need for district level leadership to get on board and work together to train and support teachers and students.

Hopeful

After understanding the culture of K-12 Texas schools and the knowledge of behavioral principles, many behavior analysts felt hopeful for future change. The behavior analysts shared that marginalization have caused limited opportunities for behavior analysts to maximize their potential. Brian stated, “I definitely feel that behavior analysts have so much potential”, like an untapped resource. The behavior analysts discussed potential changes that could impact the community, staff, students, campus, and district.

Potential Impact on the Community

One of the most apparent desires of the behavior analysts was to increase the knowledge of behavioral principles to all stakeholders including parents and district personnel. Susan mentioned the more we as a community “understand function,” the easier it will be to change undesired behaviors. Everyone could benefit from training on principles of behavior. Martha described how behavior analysts could provide trainings to all stakeholders through a consultative model, such as “outside consulting for everyone, for the whole entire district to get some professional development so they can be better equipped with how to deal with problem behaviors.”

For many students, parent training and support is critical for the generalization of skills taught from school to home. The behavior analysts discussed how districts could use behavior analysts to train families outside of the traditional school hours. Augie shared that she worked with parents in the evenings and weekends. Augie ran the district in-home training program, but she shared those parents benefited from monthly meetings and discussions with behavior analysts. Martha shared that there is a need for supporting parents of students in early childhood programs. “There are two things that parents are always requesting- potty training and feeding [information]. And getting their child to communicate at home, appropriately. So, we do host parent trainings.” Martha and Augie shared that for some students to be successful, educators need to provide supports in their home environment. They feel we need a culture that understands behavior and sees the potential for positive change. Martha mentioned that as an in-home trainer she has developed strong networks with families. Martha has witnessed the frustration of parents at the lack of behavioral knowledge provided by the teacher. Parents have told Martha,

“I know how to control my child's behavior at home, because they go to ABA, or whatever the case may be. But at school, they're constantly calling me... to come get them because they're engaging in problem behaviors.” Martha shared that parents are asking her, who can go in to provide supports and serve their child? If more behavior analysts were available, they could work to provide trainings and supports for families of students with disabilities. The behavior analysts are hopeful that more knowledgeable parents could lead to greater gains in student independence.

Potential Impact on Staff

As mentioned previously, staff training is critical for the success of students. The behavior analysts all mentioned a need for more behavior analytic trainings and expressed a desire to train all staff on the science of behavior. They discussed training staff on antecedent-based strategies and having a district focus that moves away from a reactive approach to behavior change. The behavior analysts discussed a need from robust training on FBAs and BIPs. They proposed, if administrators were provided with high quality behavioral trainings, they could better support teachers and students. Sarah, Augie, Susan, and Martha all discussed how a behavior analyst could help principals to reduce office referrals or address concerns with disproportionate discipline assignments. Behavior analysts could assist with teacher quality by providing training on evidence-based practices. They could provide fidelity checks and feedback as needed. Behavior analysts could train paraprofessionals to become registered behavior technicians. This training would allow for the paraprofessional staff to be more prepared to implement behavior intervention plans. If behavior analysts were hired to support staff and students, school counselors might could focus on mental health.

Potential Impact on Students

With concerns of more severe student behaviors emerging and many students needing more individualization in the response to intervention process, the behavior analysts are hopeful that high quality training could impact student success. In addition, if more behavior analysts were available, they could provide direct services to support students on the verge of a referral to special education. The behavior analysts could develop individualized treatment plans and implement principles of behavior. The behavior analysts could provide training on understanding functional skills deficits and how bridge these gaps in life skills. As discussed, there were concerns with addressing the whole child, and not just the educational skill deficits. The behavior analysts are hopeful that with more behavior analysts working in K12, students could receive higher quality instruction and more appropriate IEPs.

Potential Impact on a Campus/District

Many behavior analysts mentioned a need to apply the science of behavior to district problems. As an organization leaders need to understand why behaviors like teacher shortages and retention are occurring and behavior analysts can help. Currently, there are not many behavior analysts in leadership positions; there is not representation. Augie spoke passionately about using organizational behavior management (OBM) to aid leadership in making impactful system changes. Augie even describes education funding allocations as, “spending resource foolishly”, because rather than fixing the system, they [district leaders] would rather provide a “quick fix.” She discussed how leaders need to apply antecedent and consequence changes to effectively change the system. Augie described how by using OBM, one could change productivity, thus increasing student

academic, behavioral, and attendance outcomes, and staff retention, growth, and attraction. The behavior analysts were hopeful that with a stronger presence and identity, behavior analysts could help shape the field of public education.

Advocators of the Field

With the overwhelming lack of behavioral knowledge and accountability in public school systems, all the behavior analysts mentioned a need to advocate for the field. The misconceptions and misrepresentation have led many teachers and leaders to question the effectiveness of ABA. The behavior analysts constantly need to revert to the data and advocate for the students and staff. Behavior analysts support what the students need, and they are required to as outlined in the Ethics Code for Behavior Analysts. A behavior analyst understands that equity is based on what the individual needs, and that needs are identified through observations and assessments.

When it comes to functional skills, many students are not receiving what they need. Educators are trained to provide academic services and supports, and many are not well versed in the functional needs of students. Sarah shared that she visits many classrooms and, “I feel like a lot of times I'll go into classrooms, and I have a middle schooler, I have a high schooler that has absolutely no form of communication.” She mentioned that the student received speech therapy but not enough to promote an effective communication system. The responsibility fell on the teachers, but the teachers did not have adequate trainings to support the students.

The Experiences of Behavior Analysts Surrounding Ethics

The last theme that emerged was experiences surrounding ethics. Considering the vast diversity in the roles of behavior analysts in Texas public education, an interview question was designed to elicit discussion on balancing multiple governing expectations. Susan shared that recently she had become more cognizant about her ethical requirements as a behavior analyst. She also shared that she had not come across a situation where she has been asked to do something unethical. Martha had a similar response, “Fortunately, I have not run into that as a problem, where I felt like someone had asked me to do something that’s not ethical.” Augie stated that she felt, “fortunate in that where I work, they don’t conflict with my ethics.” Despite the claims of “no ethical concerns” by some behavior analysts, other behavior analysts had different experiences. Sub themes that described the concerns with ethics were apparent in many discussions including dual roles, when to obtain consent, pressures to conform to the culture, dropping clients, supervision, and wanting more services. These experiences highlight that without a strong identity in Texas public schools, behavior analysts are at risk of potential ethic violations. The behavior analyst may subconsciously be unaware of these violations, as ethical considerations reach far beyond just someone asking you to engage in an unethical behavior directly.

Dual Roles

Four of the six behavior analysts interviewed work in the district where their roles extend beyond that of a behavior analyst. Brian was a behavior analyst and an LSSP. Both Tina and Susan were interventionists. Augie was a behavior specialist. Whenever the behavior analysts served dual roles, there appeared to be more confusion around when

they were working as a behavior analyst versus a behavior specialist, interventionist, or LSSP. Susan shared that, “my title is a student support interventionist, there's 10 of us, we do not have to get consent to work with a student, because we are just a special ed staff member.” As an intervention, Susan provides behavioral support as she was trained in the principles of behavior.

When to Obtain Consent

Regarding obtaining consent, all the behavior analysts shared that they were not providing direct services at this time. Tina shared that there are times in which she would need to obtain consent.

Any kid that I am going to work with on a long-term basis, then I do have consent for [to serve the student as a] behavior analysts. We have a form that's been put together by our district and you know...I don't want to get down the road and ...somebody say what you're a behavior analyst? You know, so even in the little cases...If I'm going in as behavior interventionist to just go and speak with a teacher and we're done. I'm probably not going to get consent. But if it's somebody that I'm going to be involved with over time, then I definitely get that [consent]and have it on file.

Susan also shared that if she goes in as a behavior analyst, “if you're [working as] a behavior analyst, I do have to get consent.” This has not always been the case. “I wish I would have done that previously. But we're doing it now [getting consent] and I'm glad we are because I've had parents not sign consent.” In these cases, someone else will support the student who is not a behavior analyst. It does get muddy when trying to

consider if consent is warranted when the role of a behavior is closely aligned to the role of a behavior specialist.

Brian shared that as an LSSP/ behavior analyst, he used to sign his name with his behavior analyst's credentials, but he no longer does unless he is working with a student as a behavior analyst. He does this to limit the confusion regarding his interactions with the student. Regarding his ethics, he must balance two national boards as well as his district job requirements. He shared that he typically starts with the ethics that applies to his job as hired. Brian shared that he must be mindful of all his obligations and requirements.

Pressured to Conform to the Culture: Quick fix

After originally stating that she did not have any ethical dilemmas, Martha remembered one incident that happened. "There's never been a time where someone has told me to do something that I felt like wasn't ethical to our code of conduct or whatever." Later she shared "I was told, like, hey, there's so and so [a student and he] has and ARD next week, this child has to have a BIP." Martha described that the school was pressuring her to do the BIP in a week. She shared that, "I have to take time to observe the child, take data, figure out a plan based off the data that I've seen, and it's gonna take me probably more than a week." She shared how she had to tell the school that she was not going to be ready. She was told that she could "just take someone else's BIP and make it fit for that child." Martha shared that there really was not any concern with her ethics because, "I'm not doing that. You can do it, but I will not." Martha described how she was being pressured to conform to the quick fix culture, but having strong ethics allowed her to withstand these pressures.

Pressured to Conform to the Culture: Functional Analysis

Due to the quick fix culture, conducting a functional analysis may seem counter intuitive. Susan shared that there are times when a functional analysis is warranted. When the function of the behavior is unknown, a behavior analyst can elicit the problem by manipulating the environment. These data allow the behavior analysts to develop a functionally aligned intervention to decrease or eliminate the problem behaviors using principles of behavior. This practice is controversial, because the functional analysis is designed to cause the student to engage in a problem behavior to determine what is causing that behavior. Susan shared that when it came to conducting a functional analysis, she helped generate a flowchart for her team to consider when it was warranted. Currently, there are not any district ethical guidelines for conducting functional analyses, so Susan looked to the Ethics Code for Behavior Analysts.

I mean, I wrote the process. We do FAs [functional analysis]? ...I don't know if we do FAs [functional analysis] under the same reason why the board would say, but I make sure when I do FAs [functional analysis], I'm always following the guidelines, we don't have guidelines for the district. We do it when the function is not clear. We do it when anyone's considering any protective equipment, like helmet or splints on their arms, which we very rarely do. But we always do an FA [functional analysis] then. And if we're ever considering a punishment procedure, which I have one student that has one right now because his behaviors are so severe.

Again, it would be crucial for district leaders to understand why a behavior analysts would be causing the behavior to occur and when they would be ethically bound to consider a functional analysis procedure.

Pressured to Conform to the Culture: Work with No pay

The culture of public education is that educators work during the school day and then often finish their job at home. Augie described how this *work with no pay* mentality is controversial to her ethics. Often Augie is training and working all day supporting students and staff and at night she needs to complete paperwork because there is not enough time in the day. Augie shared, “You want me to write after hours, because now I’m having to do that [support students] all day, and I can’t do my other piece of my job”. Augie described how at times the workload outside of school hours was too much. She stated, “At some point, you’re going to have to pay me more to do that. I’ve learned to speak up, right? Because you can only bleed so much,” Augie shared. Understanding the Ethics Code for Behavior Analysts will be critical for leaders working in K12 as they conflict with the cultural norms of public education. As a behavior analyst, having a professional contract that lays out exactly what services are being provided and how those services are being compensated for is imperative. As indicated in the Ethics Code for Behavior Analyst Pro bono and bartered service are only provided under a specific service agreement (BACB, 2022; 1.04, 2.07). Further, third- party contracts like ones with school districts must still outline the nature of the relationship with each party prior to services being provided.

Dropping Clients

According to the Ethics Code for Behavior Analysts, a behavior analyst must practice within a realm that they are trained and experienced. If a student is engaged in a specific behavior that a behavior analyst was unfamiliar with, then the behavior analyst would be professionally obligated to seek the guidance of another experienced behavior analyst. Augie shared administrators currently do not understand how to offer professional growth to behavior analysts. If the behavior analyst could not find someone to train or support them, then they would ethically have to drop the client. This situation is particularly challenging in public schools due to the limited number of behavior analysts supporting K12.

Augie shared that one of the most difficult aspects of her job aligned with accountability. “I have to have admin that are going to require that teacher to do their job.” If that does not happen, then Augie must go to her supervisor with her concerns, especially if she was working as a behavior analyst. Augie shared that she has worked with teachers before who were not implementing anything that she recommended. Augie shared, “I model it [the intervention]-not hard techniques if I could just get her [the teacher] to use visuals... She doesn't use them. So, my ethics does not allow me to let that slide”. Augie describe that, “It's all about the kids, and you must look at who's really the client, it's not really the teacher in this respect, because she didn't care. It's those kids. It's the kids' parents”. If she was unable to get the teacher to do what she was expected to, then she would have to stop working with the teacher and find someone else to help her. There is a lot of pressure to get the teachers to change their behaviors, however, there is limited authority given to behavior analysts. Luckily, in Augie's district there are more

than one person who can assist with behaviors should a behavior analyst not be effective. Unfortunately, there are many behavior analysts, such as Sarah, who are the only behavior analysts working for her district. If she is unable to work with a teacher, then she must delegate the responsibility back to the principal or another person.

Supervision

Supervision of other behavior analysts and registered behavior technicians appeared to attract the most concerns with ethics. To become a behavior analyst, the candidate must complete direct intense supervision. Some districts are delegating this responsibility to behavior analysts who are currently working for the district. Brian shared many concerns about providing supervision in his district:

I think, as a team, the struggle has been we just started hiring an RBT [registered behavior technician] position. And that whole supervision piece has been -I'll just say challenging, starting with, you know, what if they don't pass the test? Who is responsible for this person that we didn't hire; that we don't necessarily feel has the goods to implement our strategies or even be effective as a bare minimum para educator. They're still ours, they're still under our supervision. Our name is the one that submitted into the BACB. Like, that's a real concern. And that's not really part of the job description either. So, like it, it's a bit of a mess right now.

The role of a behavior analyst in this scenario is to review data, consult with the registered behavior technician, do observations, and ensure that interventions are being implemented as designed. Brian's concerns were with the district's chain of command or system processes. What is the process if the registered behavior technician is not doing what they should? In a clinical setting the behavior analyst would have a discussion and

if the registered behavior technician was unable to do their job they could be reassigned or terminated. In a public education setting the behavior analysts are not given administrative control and a third party such as a principal would be involved. Brian explained that there is a bit of pressure:

We're standing sort of at a barrier. We can lose our license and, you know, these people [registered behavior technicians or behavior analysts] that were responsible for it could be making mistakes. And, and that's, that's not just ethically, you know, because of our license, it's impacting the classroom and the student. I mean, there's a lot of things that can go wrong. And we are technically accountable for them.

There are many concerns with the lack of administrative rights that a behavior analyst has when working in public education.

Augie also shared challenges that she has had with supervision in her district:

I was working with my trainee, he got hurt on the job. So, he had to go on FMLA. I had to stop what I was doing with him. Because everything I'm training him with is, is district stuff. He can't do district stuff and be on FMLA. So, my code of ethics would not allow me to allow him to breach that. Because it goes against being on the Family Medical Leave Act.

Augie is not paid additionally as a behavior analyst supervisor. Augie shared that she was asked to supervise her mentee after hours, but she knew that this was not ethical and spoke up. "Because the way we're set up is the reason why you don't pay me is because we both [Augie as a supervisor and her mentee] work for the district. And it's unethical

for me to get paid twice.” When her mentee was out on FMLA, he was unable to receive any supervision hours. Augie shared,

I can't allow that to happen [her mentee to receive hours while out on FMLA].

Because it's training drift, you know, from ethics...so you have to model that even if you feel, I felt bad. So that's that would be probably my most recent ethical challenge where I really thought through it, and I thought that I thought through the ramifications and put my foot down.

Wanting More Services

Another concern Augie mentioned was many parents are now requesting that their children receive services from a behavior analyst. Augie shared that even in a clinical setting the behavior analyst is often the supervisor, and the registered behavior technician is the person providing the direct services. She stated,

Parents want the Cadillac, and they want a behavior analyst to come in and provide services, when in reality, that would be a registered behavior technician, right? With a behavior analyst supervising a registered behavior technician. And so, explaining to the district, I said it would be cheaper, honestly, to send them to registered behavior technician training, and me supervise the registered behavior technician, than for you to pay me over and above.

Districts could support more students directly if there were registered behavior technicians who are trained to provide services in a district and a behavior analyst whose job is to supervise the registered behavior technicians.

Summary

I unearthed the perspectives and experiences of behavior analysts working in Texas public education settings. In this chapter, I highlighted the key findings from conducting six in-depth interviews of behavior analysts. Demographic data were shared to allow the readers a view of the participants' diversity. The data analysis portion followed the steps outlined in Chapter III. Once transcripts were verified, a line-by-line analysis was conducted and yielded 603 initial codes. These data were synthesized into 11 themes. Five themes described the culture of Texas public education settings including a culture of reactivity, a culture of burnout, a culture of ignorance, a culture of neediness, and a culture of limitations. Four additional themes captured identities of behavior analysts working in Texas public schools; these data revealed feelings of burnout, valueless, powerless, and hopefulness. The last theme covered experiences and challenges behavior analysts had regarding balancing multiple governing expectations.

CHAPTER V

Discussions and Recommendations

This study was designed to capture the perceptive of behavior analysts working in Texas public schools. Due to the lack of literature coupled with inconsistent, unexplained behavior data from Texas Academic Performance Report, and the federal requirements of the implementation of behavioral practices, missing narratives from the viewpoints of behavior analysts became apparent (Texas Education Agency, 2015, 2016, 2017, 2018, 2019; Texas Administrative Code, n.d.). To capture these untold perspectives and gain insight into this phenomenon, I developed the following research question: what are the perspectives of behavior analysts working in Texas public schools? These new data are important for district leaders, behavior analysts, and policy makers as it helps others to understand what it is like to be a behavior analyst working in a Texas public school. This newfound information can be used to support behavior analysts and behavior analytic practices in Texas public schools.

Discussions of the Findings in Relation to the Research Question

A descriptive analysis was generated to include the most relevant data and embodied the themes developed from the data analysis in Chapter IV (Colaizzi, 1978). As discussed previously, 10 themes emerged from the data. Five themes made up Category I and described the cultures of Texas public schools including a culture of reactivity, burnout, ignorance, neediness, and limitations. These cultures demonstrated how the current approach to handling problem behaviors in public schools continues to come from a reactive based model instead of a proactive approach. The behavior analysts clarified how many behavioral interventions were not being implemented as they were

designed. Behavior analysts portrayed the struggles teachers have with implementing behavior intervention plans while differentiating the curriculum to a class of students. In addition, the behavior analysts described how living through the COVID-19 pandemic added stressors on educators who were already experiencing burnout. The pandemic introduced new behavioral deficits and highlighted concerns with social skills that were lost or not acquired through the pandemic. The behavior analysts described a community of educators who were not well versed on the principles of behavior yet were required to implement behavior analytic practices and interventions. Further, they conferred the lack of quality in function-based assessments and the impact this had on a student's behavior intervention plan. The knowledge deficits surrounding an understanding of the principles of behavior also included campus leaders and behavior support staff. The behavior analysts described the benefits of all stakeholders being trained on the principles of behavior and ABA. In addition, the behavior analysts described how bias, conforming to cultural norms, and decision making without data has led to inappropriate least restrictive environment decisions for students. The behavior analysts described a culture in need of behavioral support to ensure students and staff were prepared and successful.

Category II described how the behavior analysts identified working in K-12. They described feelings of burnout derived from time constraints, the lack of personnel, an inability to hire new behavior analysts, and isolation from and within the field of education. The behavior analysts described how a lack of identity within the field of education has contributed to confusion and misconceptions of their roles. Many educational leaders were unsure of the roles, responsibilities, and expectations of behavior analysts. The behavior analysts described having to show their value through

their work, to promote future buy in. Another shared identity of behavior analysts was derived from the lack of accountability. The behavior analysts described their value in providing high quality training, coaching, modeling, and feedback; however, due to the current structure of support, accountability was left to campus leaders. The behavior analysts argued how a closed-minded approach, misconceptions, and misuses of behavioral principles have hindered many teachers and leader perceptions of behavior analysis. Having to create buy in prior to the implementation of behavior strategies, required additional time that was not always available. The behavior analysts described a need for district leaders to be trained in the principles of behavior to promote fidelity of interventions and ensure accountability. The last theme surrounding the identities of behavior analysts was a sense of hope for the future of K-12. By hiring more behavior analysts and training more staff to implement behavior analytic practices is the potential for positive changes for the students, staff, campuses, district, and the community. With an overwhelming lack of behavioral knowledge and limited accountability protocols in public school systems, all the behavior analysts mentioned a need to advocate for the field. This advocacy included increased public awareness of ABA, principles of behavior, and how a behavioral perspective could contribute to current educational concerns.

Category III covered the experiences that behavior analysts had surrounding balancing multiple ethical expectations. Many behaviors analysts described difficulties serving more than one role for the district, for example working as both a behavior specialist and a behavior analyst. The behavior analysts shared that there was not always clear guidance on when they should *act* as a behavior analyst and when they should serve in their broader job description (e.g., an interventionist). Concerns with ethics were

apparent in many discussions including dual roles, when to obtain consent, pressures to conform to the culture, dropping clients, supervision and desiring more services. These experiences highlighted that without a strong identity in Texas public schools, behavior analysts are at risk of potential ethics violations (BACB, 2022).

Cross Case Analysis

To develop a composite description that would capture the essence of this phenomenon, I used data source triangulation. I reviewed each transcript again looking specifically for discussions around each of the themes. According to Carter et al. (2014), a broader understanding of a phenomena can be described using data source triangulation.

Table 5

Cross Case Analysis Data by Theme

Themes	Sarah	Augie	Martha	Susan	Tina	Brian
A Culture of Reactivity	X	X	X	X	X	X
A Culture of Burnout	X	X	X	X	X	X
A Culture of Ignorance	X	X	X	X	X	X
A Culture of Neediness	X	X	X	X	X	X
A Culture of Limitations	X	X	X	X	X	X
Burnout	X	X		X	X	X
Valueless	X	X	X	X	X	X
Powerless	X	X	X	X	X	X
Hopeful	X	X	X	X	X	X
Experiences with Ethics	X	X	X	X	X	X

The themes (a culture of reactivity, a culture of burnout, a culture of ignorance, a culture of neediness, a culture of limitations, valueless, powerless, hopeful, and experiences with ethics) were experienced by all the behavior analysts and were immediately included in the composite description. Martha did not describe feelings of burnout; however, she described a stronger understanding of her roles and responsibilities as a behavior analyst within her district. Martha shared that she worked as a behavior analyst and was hired for that position. She serves a specific group of students in a program, and she is housed at the same schools as the students. The other behavior analysts described more of a consultative role covering multiple campuses and various students. The variability of the roles and responsibilities of behavior analysts could contribute to their overall sense of burnout. With five of the six behavior analysts describing burnout as an identity, it was included in the composite description.

Composite Description

The next step in the data analysis process was to take the descriptive analysis and condense it into a composite description that captured the essence of the phenomenon (Creswell & Poth, 2018). To understand what behavior analysts perceived about working in Texas public education, they described the campus cultures surrounding behavior. The behavior analysts all described cultures of reactivity, burnout, ignorance, neediness, and limitations. Similarly, to the overall culture of K-12, the behavior analysts experienced burnout, with not enough time to provide the level of care and support that they felt necessary. The behavior analysts further described their lack of identity within the field of education. The lack of understanding in their value has created a need for behavior analysts to establish buy in when working with teachers and leaders. In addition, behavior

analysts described barriers to accountability that has led them to feeling powerless.

Despite the current culture of K-12 the behavior analysts were hopeful for the potential to share the power of behavior analysis to the field of education. The behavior analysts also discussed how their lack of identity in the field of education, has caused many concerns with balancing multiple governing expectations.

Discussion of Findings in Relation to the Literature

Both Demchak et al. (2020) and Fielding et al. (2013) investigated myths regarding behavior analysis in public education. Many of their findings were in line with the behavior analysts who were interviewed in this study. These researchers described the harmful effects of untrained staff implementing behavior analytic programs (Demchak et al., 2020; Fielding et al., 2013). This knowledge gap was described by the behavior analysts as harmful to the success of behavior intervention plans and behavioral practices. Demchak et al. (2020) and Fielding et al. (2013) described how the lack of appropriate implementation of behavior analytic practices could cause negative views of ABA. The behavior analysts were consistent with both Demchak et al. (2020) and Fielding et al. (2013) regarding the marginalization of ABA strategies to working only with students on the autism spectrum.

As discussed in the review of literature, limited studies were available that investigated the roles of behavior analysts in public education. Duroy (2016) described how behavior analysts in California public schools struggled with their perceived inability to alter educators' behaviors. These findings were consistent with the theme of powerlessness and revealed concerns with accountability in public schools. Duroy (2016) also discussed the culture of reactive as "putting out fires; the analogy of public

education.” Like Duroy (2016), both studies highlighted concerns with balancing multiple governing expectations when employed in public schools. Despite the revision of the Code of Ethics of Behavior Analysis in 2022, concerns remain with dual roles in public education. Duroy (2016) discussed hierarchy concerns and barriers to identity resulting from eclectic roles. Despite the geographic differences, many findings from Duroy’s (2016) study were revealed in this investigation, developing an even stronger description of what behavior analyst are experiencing when working in public education.

Discussion of Findings in Relation to the Conceptual Framework

The conceptual framework for this study was based on two theories: Radical Behaviorism and the Diffusion of Innovation Theory (DOI). Radical Behaviorism described the structural foundation of ABA. Behavior analysts use principles of behavior grounded in ABA to change socially significant behaviors. To understand the roles and responsibilities of behavior analysts, it was critical to include Radical Behaviorism in this conceptual framework. Many socially significant behavioral excesses and deficits are described in literature that could be addressed in public schools by using applications of the principles of behavior; including but not limited to low student attendance, low staff retention, high staff attrition, low graduation rates, high alternative disciplinary assignments, and ineffective professional development (Desravines et al., 2014; TEA, 2018, 2019, 2021). Currently public schools have required the implementation of ABA strategies through campuswide positive behavior initiatives, functional-based assessments, and individualized behavior intervention plans for students (Texas Administrative Code, n.d.). Despite the requirements of these behavioral focuses, most

campuses are not equipped with experts in the field of behavior to support the staff required to implement these practices.

Radical Behaviorism

Radical behaviorism is an environmental approach to behavior change. There were many barriers to behavior change systems revealed in this study. The current school culture is reactive and without system structures that reinforce appropriate behavior and do not reinforce unethical or punitive approaches, districts will likely continue to see unnecessary uses of alternative disciplinary consequences. According to Baer et al. (1968), there are seven dimensions of ABA, applied, behavioral, analytic, technological, conceptional systematic, effective, and generality. Based on the findings from this investigation, many concerns are aligned with the following dimensions: analytic, technological, conceptional systematic, effective, and generality. The behavior analyst discussed concerns with procedural integrity, data analysis, and understanding of basic behavioral principles and tactics used in behavior change systems. Without knowledge of the principles of behavior or the tactics used to aid in behavior change programs disseminated to campus staff, educators will likely continue to struggle implementing behavior analytic practices. The behavior analyst described concerns with inconsistencies, reactivity, not enough support, and an overall lack of accountability in public education.

The primary focus in this study was to understand from the perspectives of behavior analysts, what they are experiencing while working in Texas public schools. By using the Diffusion of Innovation Theory, I was able to better understand hurdles in

innovation and barriers to momentum that impacted the effectiveness of behavior analysts as well as acceptance of behavior analytic practices in public education.

Diffusion of Innovation Theory

Rogers (2003) described an innovation as, “an idea, practice, or project that is perceived as new by an individual or other unit of adoption” p. 12). Although ABA is not new to the field of education, it has become more prevalent due to federal and state requirements. There are four key factors in Diffusion of Innovation Theory: innovation, communication channels, time, and social systems (Rogers, 2003). In this section, I applied the introduction of behavior analytic practices as viewed by behavior analysts through these four key factors, to better understand barriers in social acceptance in Texas schools.

Innovation Hurdles. The behavior analysts described a culture of reactivity, in which staff were responding to behavior infractions by implementing consequences that are not function-based. A need for antecedent based, proactive strategies, and supports were apparent. The behavior analysts described a culture of ignorance, whereby staff members were not trained or experienced in the principles of behavior, yet they were required to implement strategies based on behavioral principles through an IEP or Tier intervention. The lack of knowledge by teachers has been described by the behavior analysts as barriers to the success of students BIPs, the fidelity of interventions, as well as expansions of behavioral principles to other district/campus problems.

Without this innovation being disseminated globally to the field of education, there were inconsistencies in the quality of services provided to students. The behavior analysts described a need to develop buy in with teachers and leaders as the field of

education is an eclectic environment with numerous philosophies on student learning. The behavior analysts explained barriers to acceptance including a fixed mindset and burnout.

Communication Channels. Once an innovation has been introduced, it can be adopted or rejected (Rogers, 2003). To evaluate the social acceptance of ABA and behavior analysts, I needed to look closer at the communication channels of the social system. A disconnect occurred due to scarcity. The behavior analysts described the lack of personnel trained in behavioral principles necessary to disseminate knowledge, and therefore, creating a culture of neediness. To offer some level of support districts were hiring behavior specialists or interventionists who were not necessarily formally trained in principles of behavior. When these staff members were required to provide supports for behavior initiatives that were grounded in ABA, the behavior analysts described misuses of behavioral principles such as reinforcement and ineffective interventions.

The behavior analysts explained that should a behavior analyst be available to support the campus, they are experiencing concerns with their identities in Texas public schools. Behavior analysts are often seen as outsiders as they are typically not included in the campus community. Another misconception of their identity was described as the gate keepers of LRE, despite the legal power being with the IEP committee. The behavior analysts described needing to create buy in with teachers and leaders through demonstration. When asked to support a campus, they would often introduce the innovation [the behavior practice or principle] for the first time. They then had to gather data to evaluate the effectiveness and justify their decisions. The concern was primarily with the implementer of the intervention or procedure. Treatment fidelity relies on the

teachers and leaders to implement and monitor the interventions as designed. The current lack of accountability might lead behavior analysts to feeling powerless when working in Texas public schools. The behavior analysts possessed the knowledge to change the behaviors, they disseminated the knowledge to the teachers and leaders, but the power remained with the implementer.

Time. Over time, educators have seen this innovation gain momentum, as more and more students have IEPs and BIPs which require the use of evidence-based practices and interventions grounded in behavioral principles. Requirements of the IEP has popularized this innovation, yet behavior analysts are reporting more acceptance by requirement, not necessarily by belief or understanding. Behavior analysts are working with staff to disseminate the knowledge that is necessary to ensure a free and *appropriate* education for students.

Practicality Barriers. Rodgers (2003) described five factors that alter the likelihood of an innovation being adopted: a) relative advantage, b) compatibility, c) complexity, d) triability, and e) observability. The behavior analysts described engaging in all five of these steps when working in Texas public schools. To achieve the relative advantage, the behavior analysts described how they needed to demonstrate the benefits of ABA and a behavioral perspective to staff prior to the implementation of any intervention. This process required valuable time, but was critical to establish buy in. The second factor was compatibility or how the implementor can relate to the intervention or procedure and is valued (Rodgers, 2003). This factor was deemed as more challenging due to the current culture of burnout and reactivity experienced by staff. Many times, the staff did not have the behavioral knowledge to implement the intervention or a clear

understanding as to why problem behavior was occurring. The behavior analysts described this factor as understanding the *functions of the behavior*. Without this key information, teachers and leaders were not solving the root causes of the problem behaviors, and without a strong understanding of their abilities to change student behavior, educators continued to experience challenging behaviors in Texas public schools. This reactive approach to behavior management has contributed to a culture of burnout experienced by teachers and leaders.

The next factor, complexity, describes the extent that the innovation is practical. This factor was also described by behavior analysts as concerning. The behavior analysts described Texas public schools' leaders as wanting a quick fix to problem behaviors and an expectation of rapid behavior change. The behavior analysts described how consistency was critical when altering behaviors, and a significant barrier to achieve when working in a public setting. There are many variables that could affect the consistency of interventions, which could also accidentally reinforce problem behaviors. Therefore, the practicality of behavioral interventions must be individualized, evaluated, and understood by those implementing them. This factor was problematic because there were limited staff trained in principles of behavior available to offer feedback and support to teachers and leaders.

The next factor, tribality, or the opportunity to implement the innovation into practice prior to committing, was also difficult as students' needs change and there are limited staff available to provide these trainings. The behavior analysts described the advantage of an evidence-based model to professional development such as BST. This approach would allow for rehearsal and feedback. However, they shared that due to time

constraints, lack of staff, and isolation, BST was not always practical in the current climate. The uses of standards to professional development could increase the likelihood of the knowledge acquired to transcend into practice.

The last factor, observability, described the ability to see the effectiveness of the innovation (Rodger, 2003). Buy in from the teachers and leaders, came after understanding and witnessing how a behavioral approach transformed the behavior. As indicated earlier, if the intervention is not implemented with fidelity, then the behavior change is less likely. The behavior analysts described concerns with the lack of data used by campus staff to make informed decisions, allowing biases and opinions to impact placement recommendations.

Social Systems Concerns. Without appropriate representation in public schools, unintended misuses of behavior analytic practices occurred and could be altering the stakeholder's perceptions of ABA in Texas public schools. It is dangerous for the field of ABA to not have adequate representation in public schools especially if these environments are misusing interventions and procedures grounded in the principles of behavior (Demchak et al., 2020; Fielding et al., 2013). Without a clear understanding of the contributions of behavior analysts to public education, or the educational benefits of a behavior analytic approach to district problems, educational leaders could miss out on opportunities to better support their students and staff.

Recommendation for Future Research

1. According to behavior analysts in this study, district leaders do not understand their roles in Texas public schools. The participants claimed that leaders were unaware of how behavior analysts could support campuses with changing student and staff

- behaviors. It would be wise to gain an understanding from the perspectives of leaders on the contributions offered by behavior analysts in Texas public schools.
2. The premise of this investigation was to gather a broader understanding of the perspectives of behavior analysts; therefore, a recommendation for future research is to take the individual themes from this study and conduct a more in-depth analysis from the perspective of multiple stakeholders. For example, researchers could investigate the perspectives of teachers, parents, and principals on the culture of reactivity in Texas Public Schools.
 3. Another suggestion for future research is to apply the recommendations from this study and evaluate if these changes have an impact on the perspective of behavior analysts working in Texas public schools. These data might allow districts to develop stronger plans to hire and retain behavior analysts.

Recommendations for Behavior Analyst

1. For behavior analysts who are considering employment in Texas public schools, I would encourage them to select districts where their behavior analyst credentials are acknowledged and supported. Working in a broader capacity such as a behavior specialist or interventionist could cause potential concerns with ethics violations due to dual roles. Further clarification from the BACB may be necessary to guide when and if a BCBA credential can be used under various titles.
2. It is critical for behavior analysts to educate district leaders on their values and potential contributions to gain social acceptance in Texas public schools. Behavior analysts could present evidence-based approaches to change socially relevant

- behaviors to district leaders. Behavior analysts could justify their employment by presenting data routinely to district leaders.
3. When considering employment, behavior analysts should seek contracts that outline the supports necessary to engage in ethical and competent behavior analytic practice. It should include appropriate and competitive compensation, clear roles and expectations for the behavior analysts, professional growth opportunities the district offers, networks within the district that are available, contacts outside of the district, the district's understanding of the behavior analysts' code of ethics, and the district's accountability protocols to promote fidelity and integrity.

Recommendations for Campus and District Leaders

1. Campus principals should ensure that their behavior support staff have received training on principles of behavior and applied behavior analysis. This training is necessary to ensure that behavior intervention plans and behavior analytic practices can be implemented with fidelity. If behavior analysts are unavailable to a district, this situation may require districts to consult with behavior analysts outside of the district.
2. As a district leader, it is critical to develop clear expectations on a job description for behavior analysts, bearing in mind their code of ethics. District leaders should consider flexible third-party contracts to ensure clear communication between clients and behavior analysts throughout the process. Districts should consider employing behavior analysts to fulfill legal and procedural requirements. If direct services are required, district leaders should have a clear understanding of the code of ethics and hire behavior analysts who can provide the direct services in accordance with their

- ethical guidelines. Behavior analysts have a duty to advocate for appropriate services and oversee progress towards their clients' goals (BACB, 2022; 3.12).
3. Every year school leaders develop improvement plans to improve student and staff outcomes. Often educators are tasked with addressing low student attendance, low staff retention, high staff attrition, low graduation rates, high alternative disciplinary assignments, and ineffective professional development (Desravines et al., 2014; TEA, 2018, 2019, 2021) As a data-driven district, leaders should consider hiring behavior analysts to support district/campus initiatives Behavior analysts can work with leadership teams to implement behavioral change systems and make educated decisions based on evidence.
 4. Districts should develop accountability protocols to promote fidelity of interventions, monitor progress, and identify barriers in the system. Accountability protocols are systems to ensure that interventions are implemented as they are designed. Campus leaders could provide intentional walk throughs to gather data on the teacher's performance. This intentional focus could highlight areas of growth as well as exemplars for peer modeling.

Recommendations for Policy Leaders

1. The state has required the use of evidence-based practices for many students with disabilities, however, the concern is with the teacher's ability to implement these practices. The requirement of an accountability feature provided after professional developments would allow principals to monitor implementation and as a tool to hold educators accountable for their newly acquired skills.

2. States could better support schools and students by providing funding sources that employ credentialed behavior analysts. This addition could promote progress towards the knowledge and skills gap described by behavior analysts.
3. Due to inclusive practices and federal and state requirements, it is imperative that undergraduate teacher programs and master's-level school administrative programs include evidence-based practices and principles of behavior in their course sequence. It is important that teachers and leaders learn proactive or preventative strategies to transform the current reactive culture.

Summary

To capture the narrative of behavior analysts working in Texas public education, in this phenomenological study I focused on the perspectives and experiences of these professionals. This chapter discussed key findings in relation to the research question, review of literature, and conceptual framework. The essence of this phenomenon revealed cultures of reactivity, burnout, ignorance, neediness, and limitations. The behavior analysts described their lack of identity within the field of education. They discussed needing to establish buy in when working with teachers and leaders to justify their value. In addition, behavior analysts described barriers to accountability that has led them to feeling powerless. The behavior analysts captured feelings of hopefulness for the field of education through further dissemination of the science of behavior. The behavior analysts also pronounced their lack of identity in the field of education, leading to many concerns with balancing multiple governing expectations. These findings were in alignment with data from Demchak et al. (2020), Fielding et al. (2013), and Duroy (2016). By investing these perspectives using Radical Behaviorism and The Diffusion of

Innovation Theory, I was able to better understand hurdles in innovation and barriers to momentum that could have impacted the effectiveness of behavior analysts and acceptance of behavior analytic practices in public education. Recommendations for future researchers, behavior analysts, district leaders, and policy leaders were presented.

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APPENDIX A

Interview Protocol

Good (morning, evening, afternoon). My name is Misti Babino, and I am conducting research on the perspectives of behavior analysts in Texas public schools. You have been asked to participate in this research study because you are a BCBA and play a critical role in understanding the implementation of principles of behavior in a public-school setting. I wanted to personally thank you for volunteering to participate in this research study. The purpose of this study is to understand your experiences as a BCBA working in public schools.

I anticipate this interview to take approximately 1 hour and 30 minutes but do not feel rushed, I am here to better understand and capture your experiences. You can take as many breaks as you need or stop the interview at any time. We have a set of questions that we serve as a foundation, and I may have a few follow up questions based on your responses. You were made aware of the risk and benefits of this study. Do you have any questions, suggestions, comments, or concerns regarding your consent to this study?

Participant's Response: _____

I would like to reiterate that your consent to participate in this study is voluntary and you may revoke it at any time. I can assure you that you will not lose any services, benefits, or rights you would normally have if you chose not to volunteer. I would also like to remind you that this interview will be video, and audio recorded to ensure accurate transcription of the discussion today.

After the interview, I will transcribe our conversation and share a copy of the full transcript with you through an encrypted email. You will be provided a week to edit or elaborate on any answer you gave today. You are not required to edit or elaborate if you do not wish to. Once I have offered an analytical interpretation of your data, I will offer you another opportunity to review my findings and provide feedback. To reiterate you do not have to do anything if you do not wish, this is just to ensure that I accurately captured your perception.

To protect your identity, I would like to refer to you by a pseudonym. Would you like to select an alternative name that I can refer to you as for the remainder of the study or would you prefer that I assign one to you?

Participant's Response: _____

(If she/he does not want to select a name, then I will use the name _____)

Do you have any questions, suggestions, comments, or concerns before we begin the interview process?

Participant's Response: _____

Okay, I will now press the record button and please feel free to ask questions at any time.
(Start the recording)

- 1) Describe your experiences as a BCBA supporting students. Describe your caseload.
- 2) Describe your experiences as a BCBA supporting faculty/staff.
- 3) Are there any additional roles you serve or services you provide that you have not mentioned?
- 4) Do you feel that as a BCBA you could contribute to the field of education in a way that your current job description does not include, if so please explain.
- 5) According to The Texas Academic Performance Report (TAPR), despite current campus initiatives to decrease the number of students who receive a disciplinary consequence, Texas is currently still utilizing in school and out-of-school suspensions with 1.2 % of the population. There has been a .4% reduction in the past 5 years in alternative disciplinary consequences. Can you describe any experiences that could further explain these data?
- 6) How would you describe your experience with school-wide interventions? Has it been successful? Why or why not?
- 7) How would you describe your experiences collaborating with teachers? How would you describe your experiences collaborating with other services providers?
- 8) Describe any barriers you have experienced while serving as a BCBA in a Texas public school.
- 9) How would you describe your experiences and your involvement with the campus leadership team?
- 10) Based on your experiences, what aspects of your job do you feel are critical for campus leaders to understand? What are, if any, misconceptions, or misperceptions regarding your role?

11) How would you describe any experiences with behavior specialists who are not formally trained in ABA- if any?

12) How would you describe your experience with balancing multiple governing expectations (primarily I am referring to the code of ethics of behavior analysts from the BACB and the expectations outlined in your district job requirements).

13. Have you seen any direct impacts from COVID -19

That concludes the questions that I have for you today. Do you have anything else that you would like to add or share that you feel could benefit our understanding of BCBAs working in public education?

Thank you for your time. I am going to stop recording now (Stop the recording).

I would like to remind you again that your consent is voluntary and if you wish to revoke your participation at any time you may do so. My contact information was provided in the consent process for Participation in Research form. I will be reaching out to you via email within the next few weeks to provide the transcript for you to review. If you would like to provide edits or comments you will have a week to do so. I encourage and welcome your feedback.

APPENDIX B

From: do-not-reply@cayuse.com
Subject: IRB-2022-65 - Initial: Limited IRB Review Determination
Date: April 20, 2022 at 7:48 AM
To: [REDACTED]
Cc: irb@shsu.edu



Date: Apr 20, 2022 9:48:41 AM CDT

TO: Misti Babino Julie Combs
 FROM: SHSU IRB
 PROJECT TITLE: A Qualitative Vision of a Quantitative World: The Perceptions of Board Certified Behavior Analyst and Their Contributions to Texas Public School Systems
 PROTOCOL #: IRB-2022-65
 SUBMISSION TYPE: Initial
 ACTION: Exempt - Limited IRB
 DECISION DATE: April 20, 2022
 EXEMPT REVIEW CATEGORIES: Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
 The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

OPPORTUNITY TO PROVIDE FEEDBACK: To access the survey, click [here](#). It only takes 10 minutes of your time and is voluntary. The results will be used internally to make improvements to the IRB application and/or process. Thank you for your time.

Greetings,

On April 20, 2022, the Sam Houston State University Institutional Review Board (IRB) determined the proposal titled A Qualitative Vision of a Quantitative World: The Perceptions of Board Certified Behavior Analyst and Their Contributions to Texas Public School Systems to be Exempt with Limited IRB Review pursuant to 45 CFR 46. This determination is limited to the activities described in the Initial application, and extends to the performance of these activities at each respective site identified in the Initial application. Exempt determinations will stand for the life of the project unless a modification results in a new determination.

Modifying your approved protocol:

No changes may be made to your study without first receiving IRB modification approval. Log into [URL], select your study, and add a new submission type (Modification).

Study Closure:

Once research enrollment and all data collection are complete, the investigator is responsible for study closure. Log into [URL], select your study, and add a new submission type (Closure) to complete this action.

Reporting Incidents:

Adverse reactions include, but are not limited to, bodily harm, psychological trauma, and the release of potentially damaging personal information. If any unanticipated adverse reaction should occur while conducting your research, please login to Cayuse, select this study, and add a new submission type. This submission type will be an adverse event and will look similar to your initial submission process.

Reminders to PIs: Based on the risks, this project does not require renewal. However, the following are reminders of the PI's responsibilities that must be met for IRB-2022-65 A Qualitative Vision of a Quantitative World: The Perceptions of Board Certified Behavior Analyst and Their Contributions to Texas Public School Systems.

1. When this project is finished or terminated, a **Closure submission** is required.
2. Changes to the approved protocol require prior board approval (**NOTE:** see the directive above related to **Modifications**).
3. Human subjects training is required to be kept current at citiprogram.org by renewing training every 5 years.

Please note that all research records should be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact the Sharla Miles at [REDACTED] or irb@shsu.edu. Please include your protocol number in all correspondence with this committee.

VITA

Misti Babino

Bettering Behavior, LLC- President

Adjunct Professor at Sam Houston State University

Degrees Earned

Master of Education, Special Education, Sam Houston State University

Bachelor of Science, Academic Studies, Sam Houston State University

Professional Licensure and Certifications

Board Certified Behavior Analyst

Licensed Behavior Analyst in Texas

Texas Education Certificates:

Generic Special Education (EC – 12),

General Studies (EC – 5),

Educational Diagnostician

Publications

Nava, M., Vargo, K., & **Babino, M.** (2016). An evaluation of a three-component multiple schedules to indicate attention availability. *Journal of Applied Behavior Analysis*, 49(3), 674–679. <https://doi-org.ezproxy.shsu.edu/10.1002/jaba.297>

Work or Professional Experiences

Adjunct Professor at Sam Houston State University	2021-Current
Bettering Behavior LLC.	2021-Current
Board Certified Behavioral Analyst	2017-Current
Low Incidence Program Coordinator, Tomball ISD	2020-2021
Program Director of Special Education, Aldine ISD	2018-2020
Assessment Specialist, AISD	2011- 2018
In-Home Trainer (after school and weekends)	2009-2012
Social Skills Development Team for Students with Aspergers/Autism	
Orange Grove Elementary, AISD	2008- 2011

Honors and Awards

Sam Houston State University Invitation to Join Honor Society	2017
Sam Houston State University Student of the Year	
(Master of Education Program)	2011
District Model Classroom for Structured Learning Program	2011

Other Competencies

Presented at SERA	2020
SERA reviews of conference proposals	2020