

1-16-2025

Perceived Anxiety Symptoms of Board-Certified Behavior Analysts Who Work with the Autism Population

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Walden University

College of Allied Health

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Elyra Rosa Gonzalez

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2025

Abstract

Perceived Anxiety Symptoms of Board-Certified Behavior Analysts Who Work with the

Autism Population

by

Elyra Rosa Gonzalez

MS, Purdue University Global, 2016

BA, Cleveland State University, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

February 2025

Abstract

The increase in autism spectrum disorder (ASD) diagnoses has led to a rise in mental health issues among board-certified behavior analysts (BCBAs). Burnout has been identified as the primary cause of emotional exhaustion, poor work-life balance, and stress. Despite this, direct interviews with BCBAs are limited. Previous research has indicated that BCBAs face high demands in their work; however, their mental health has not been thoroughly evaluated. Cognitive appraisal theory was used to demonstrate that the perceived symptoms are associated with anxiety, not just burnout. Semi-structured interviews with 10 BCBAs were conducted to gain direct feedback on their view of working with those with ASD in this qualitative, phenomenological study. This study showed that BCBAs had four themes that emerged, including work-life balance, stress, workload/time management, job satisfaction, and anxiety. BCBAs find joy in their jobs and find it rewarding despite having to work late, work evenings, feelings of arousal, stress, feeling overwhelmed, taking work home, and tasks taking longer than expected, which had led to symptoms of anxiety. This would be an important contribution to the existing literature and would enhance social change initiatives by helping BCBAs to better reflect on their mental health and take steps to improve it as well as shed light on the growing mental health symptoms BCBAs are exhibiting.

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Dedication

I want to begin by thanking God for giving me continued strength throughout this journey and allowing me to walk in the purpose he has designed me for. I also want to express my gratitude to my friends for their continued support despite all the canceled plans and missed phone calls. I appreciate your understanding during these times and your constant encouragement. I dedicate this to Abuela and my grandfather, who has passed away. I miss you more than words can express, but I am blessed to know that you continue to watch over me. Thank you for instilling the strength in me to keep fighting, not just by your words but by your actions. Even when things got tough, thank you for showing me I was built to overcome. I pray that I make you proud.

Finally, I dedicate this to my parents, Lydia and Jaime Gonzalez. Thank you for your continued encouragement to keep moving forward. You are not just my parents; you are the role models that I strive to emulate. You instilled and exemplified perseverance, patience, drive, hard work, and determination, and because of that, I am forever grateful. The sacrifices you have made, the love you have shown, and the lessons you have imparted have all played a fundamental role in shaping the person I am today. Your sacrifices have never gone unnoticed; rather, they are my driving force to work harder and strive for even greater achievements to make you proud. Thank you for recognizing my worth and abilities even when I could not. I am proud to be your daughter, I am proud to represent our family, and our culture, and to that end, this for you.

Acknowledgments

I want to thank Dr. Horton, the chair of my research, and Dr. Johnson, my committee member, for their ongoing support throughout this process. Thank you for pushing me, encouraging me, going the extra mile when needed, and, above all, believing in my work.

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Chapter 1: Introduction to the Study

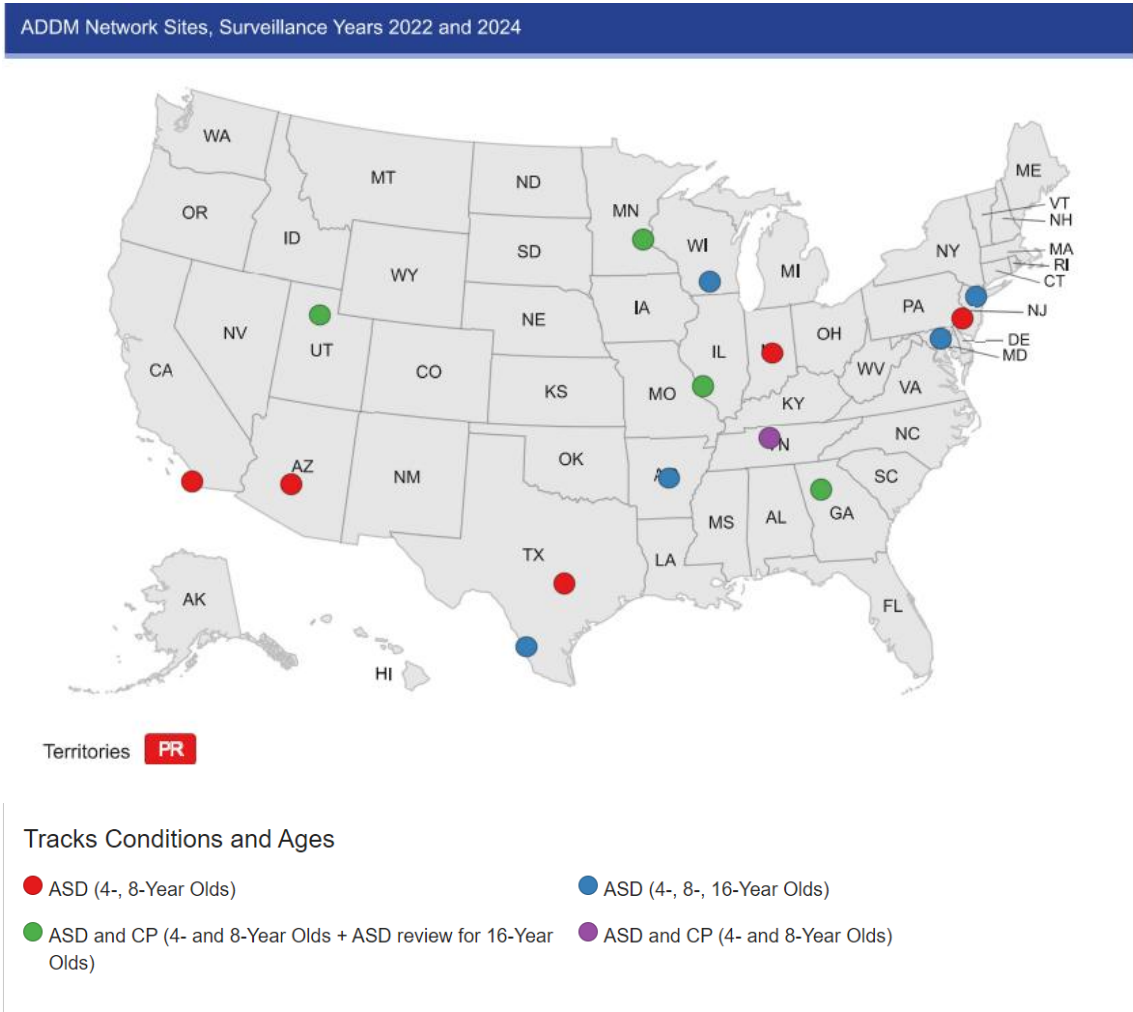
Introduction

According to the Centers for Disease Control and Prevention (About Autism Spectrum Disorder, 2024), 2.8% of 8-year-old children have a diagnosis of autism spectrum disorder (ASD). This statistic exceeds the 2018 estimate of 2.3% (1 in 44) prevalence. The data comes from a sample of 11 communities in the Autism and Developmental Disabilities Monitoring (ADDM) Network and does not represent the entire United States (Autism and Developmental Disabilities Monitoring (ADDM) Network Sites, 2024). The ADDM Network monitors ASD prevalence and diagnostic criteria in children throughout the United States. In 2000, the CDC financed the ADDM Network, which had 17 sites in Alabama, Arizona, Arkansas, California, Colorado, Florida, Georgia, Maryland, Minnesota, Missouri, New Jersey, North Carolina, Pennsylvania, South Carolina, Tennessee, Utah, West Virginia, and Wisconsin. The ADDM Network monitors around 220,000 children between the ages of four and eight. By using medical data, it would be possible to estimate the prevalence of ASD in each local jurisdiction. Community health and education providers use this approach to implement and identify medical students with International Statistical Classification of Diseases and Related Health Problems codes, particularly within educational categories. The ADDM Network acquires additional data from records about demographics and other important health conditions, such as co-occurring intellectual disability. The ADDM Network also follows up on a cohort of 16-year-old children in select states.

Figure 1 represents the areas in which the ADDM collects data within the United States (Autism and Developmental Disabilities Monitoring (ADDM) Network Sites, 2024):

Figure 1

ADDM Network Sites



Note. Disclaimer- Please note that the materials provided, including any links to the CDC, ATSDR, or HHS websites or pictures, are for informational purposes only. The use of these materials does not imply endorsement by CDC, ATSDR, HHS, or the United States Government. Autism and Developmental Disabilities Monitoring (ADDM) network sites. (2024, May 16). Autism Spectrum Disorder (ASD). <https://www.cdc.gov/autism/addm-network/sites.html>

According to the CDC Newsroom (2016), ASD prevalence among Asian, Black, and Hispanic children was at least 30% higher in 2020 than in 2018, and the prevalence among White children was 14.6% higher. Due to the increased ASD incidence, there is a greater need for ASD providers. The Behavior Analyst Certification Board (BACB; 2023), which licenses Board-Certified Behavior Analysts (BCBAs), reported that the annual nationwide demand for individuals with BCBA/BCBA-D certification has increased consistently since 2010, with a 23% increase from 2021 to 2022 alone.

According to Zeldes (2022), it remains unclear whether environmental factors are the primary cause of the rise in ASD diagnoses. The higher number of diagnoses could be attributed to other factors. For instance, policy changes and the use of the umbrella term ASD have made it easier to identify more children, particularly those with milder symptoms. Screening for symptoms during routine pediatrician visits of children aged between 18 and 24 months, which began in 2006, has also helped identify more children with ASD (Zeldes, 2022). Before 2013, physicians had to stick to one disorder when diagnosing a child, even if there were signs of multiple conditions. Physicians currently can diagnose a patient with more than one condition. For example, a patient could be diagnosed with ASD and attention-deficit/hyperactivity disorder (ADHD). This change may have also led to an overall increase in the number of children receiving an ASD diagnosis. The increased screening and better diagnosis options have consequently increased awareness of this condition. Parents are more likely to seek medical advice from pediatricians if they notice any signs of developmental delays in their child.

I aimed to examine the anxiety symptoms experienced by BCBAAs who work with individuals on the autism spectrum. Although studies have shown high burnout levels among BCBAAs, resulting in emotional exhaustion, depersonalization, and a diminished sense of personal achievement (Kranak, 2022), there has been no investigation into whether these symptoms are linked to anxiety. Anxiety manifests as various physical symptoms, such as a pounding heart, shortness of breath, chest discomfort, dizziness, and sweating (Kranak, 2022). Additionally, anxiety can affect behavior by inducing avoidance of perceived threats, restlessness, and communication difficulty.

The demands placed on BCBAAs could lead to unethical clinical practices, high turnover rates, and dissatisfaction with work-life balance (Molko, 2018). Limited research is available on the exact percentage of the turnover rate of BCBAAs. According to Molko (2018), finding comprehensive and widespread data on Applied Behavior Analysis (ABA) services is difficult. However, available data showed that the low-end estimate for annual turnover is 30% (Molko, 2018). Some providers have reported turnover rates as high as 75% or more for direct care providers or registered behavior technicians (RBTs). Molko also suggested that retention is higher among supervisory roles, with turnover between 5-20% annually. Residential facilities have found an annual turnover rate of around 45-75%. In this study, I aimed to investigate the perceived symptoms of anxiety among BCBAAs and their potential impacts on both personal and professional aspects of life.

Social Implications

Individuals with autism often have higher levels of co-occurring psychiatric disorders (Blainey, 2017). Co-occurring disorders make it more difficult for BCBA's to meet the already high clinical expectations of data collection for assessing problem behaviors in children, supervising registered behavior technicians, and providing parent training.

The expectations placed on BCBA's can harm their mental health. It is important to consider the effect on anxiety levels, as it can influence interventional efficacy, work performance, treatment costs, and attendance at work (Slowiak & DeLongchamp, 2021). My study was vital because BCBA's usually do not have their mental health directly evaluated despite them experiencing high work demands. Working as a BCBA with individuals who have autism while experiencing mental health symptoms can impede the already slow process of learning new skills for this vulnerable population.

I aimed to explore the relationship between anxiety symptoms and how BCBA's perceive their experiences to provide valuable insights for clinical psychology. Having a comprehensive understanding of potential mental health challenges that may emerge within the realm of ABA is crucial. Acknowledging and addressing such issues can mitigate the turnover rate and promote awareness of how attending to mental health concerns can boost productivity, foster meaningful connections, and cultivate a more optimistic perspective.

Problem Statement

There has been increased research on burnout among BCBA's, but substantial research on the subject is still lacking, as Kranak (2022) noted. Behavior analysts who offer behavior-analytic services may experience low job satisfaction and burnout due to prolonged exposure to job-related stress. Plantiveau et al. (2018) reported that approximately two out of every three BCBA's experience moderate to high levels of burnout and low job satisfaction, in contrast to earlier studies that showed lower levels of burnout. Specifically, 26% reported high emotional exhaustion, 29% mentioned high levels of depersonalization, and 50% cited a lack of accomplishment. The main sign of burnout is exhaustion, which can lead to various emotional and behavioral issues that correlate to anxiety (Plantiveau et al. 2018).

Those who work with individuals exhibiting psychological or behavioral disturbances face higher levels of stress than those working with individuals with physical or intellectual disabilities, and there are various reasons why working with individuals with ASD can increase the risk of burnout (Bottini et al., 2020). One reason is the increased workload of coordinating with parents and multidisciplinary teams, including psychologists, speech-language pathologists, and healthcare providers. Moreover, professionals in mental health and special education who work with this population often perceive the available treatment strategies as ineffective and frequently encounter challenges to achieving progress. The unique range of challenging behaviors, comorbidities, and co-occurring concerns associated with ASD also contributes to higher burnout rates, as intervention for ASD can be complex (Bottini et al., 2020).

Additionally, some children with ASD may have average or above-average intelligence, which can lead to their challenging behaviors being perceived as intentional, making them more difficult to tolerate than those exhibited by children with intellectual disabilities (Bottini et al., 2020). It is worth noting that, despite this knowledge, burnout is the only phenomenon being reviewed, anxiety is not addressed in this context. I addressed this problem in my research.

Purpose of Study

In this qualitative study, I aimed to explore the perceptions of anxiety symptoms experienced by BCBA professionals who work with individuals on the autism spectrum. The focus was on better understanding this issue, which was overlooked in previous studies focusing only on burnout. To collect data, I conducted semi structured interviews of participants until data saturation was achieved. I used cognitive appraisal theory, which suggests that stress results from the imbalance between the demands placed on an individual and their ability to cope with them (see Lazarus & Folkman, 1984). This theory could help to show the perceived symptoms associated with anxiety.

Research Question

RQ: What are the perceived anxiety symptoms of BCBA professionals who work with the autism population?

Significance of the Study

This study was significant to help address a critical gap in understanding the mental health of BCBA professionals. These professionals work in high-stress environments, yet their psychological well-being has not been thoroughly examined. I aimed to explore the

relationship between anxiety symptoms and how BCBAAs perceive them. This research can provide valuable insights for clinical psychology, particularly useful when working with individuals with autism, who are a vulnerable population. The study highlighted that experiencing anxiety symptoms while working with the autism population can potentially hinder progress that is already delayed. The research can help BCBAAs focus on their mental health and take steps to improve it, which benefits the individuals they serve.

Overview of the Theoretical Framework

For this study, I used the cognitive appraisal theory. This framework involved evaluating one's surroundings and interpreting the situation, determining whether one has the necessary resources to manage it, and then re-evaluating the situation. In this manner, I used this theory to stress the importance of how BCBAAs perceive their capacity to work with individuals with ASD.

According to research by Ali (2016) and Lazarus's 1984 cognitive appraisal theory, the human mind assesses physiological sensations or awareness of stimuli. Reflexes, drives, and emotions are all responses that help individuals meet their needs in the environment. Responses differ in their adaptability. Reflexes, such as swallowing or blinking, produce the same response each time and are primarily involuntarily fixed action patterns. Drives, such as thirst or hunger, are motivated by predictable behavior classes, but the reactions can vary. Emotions like anger or anxiety enable greater adaptability to meet the environment's specific needs (Ali, 2016).

Responses can be positive (e.g., happiness or joy) when the stimulus is favorable or evokes pleasant memories (Pahng & Kang, 2023). Conversely, cognitive appraisal can

result in negative emotions, such as anger, fear, anxiety, or even sadness, if the stimulus is perceived as stressful or dangerous. Cognitive appraisal enables individuals to make sense of their environment and respond accordingly, and this process is important in decision making, problem solving, and emotional regulation. It allows individuals to assess a situation and determine the appropriate action (Pahng & Kang, 2023).

Nature Of the Study

A qualitative phenomenological approach was used, which included semi-structured interviews. I aimed to gather data about the perceived anxiety symptoms of BCBAAs who work with individuals on the autism spectrum. An existing gap in knowledge was the lack of direct feedback from BCBAAs regarding their feelings and reasoning. By conducting a qualitative study, more information can be obtained for future research.

Facebook was used to recruit BCBAAs for this research. An invitation to participate and my secure email address was posted on the group pages with approval from the administration so everyone in the group had access. The research population included male and female participants with BCBA credentials and varying demographics such as age and ethnicity. Implied consent forms were provided via email.

A questionnaire was developed for semi-structured interviews, which was used until the number of participants reached data saturation. Data saturation is achieved when the data answers the research question, and there is no new development of information (Burkholder et al., 2019). The interviews were recorded on Zoom version 5.16.10 (26186). The recordings were uploaded to NVIVO 15 for data analysis and coding. The

questionnaire included questions about anxiety symptoms, how well the participants think they cope with current stressors, what those stressors were, and whether they thought they had support in their work environment. Any additional responses were also collected, analyzed, and reported. My committee vetted the questions.

Definition of Key Terms

Anxiety: Anxiety is a natural reaction to stress that can take various forms, such as fear, uneasiness, and worry (Chand & Marwaha, 2023). If anxiety becomes severe or persistent, it can disrupt daily activities and harm overall well-being. Anxiety disorders are a group of mental health conditions characterized by excessive and persistent fear, worry, and unease. These conditions can be caused by genetic, environmental, and psychological factors and may require professional intervention to manage. Other symptoms of anxiety disorders may include trouble concentrating or making decisions, feeling irritable, tense, or restless, experiencing nausea or abdominal distress, having heart palpitations, sweating, trembling, or shaking, trouble sleeping, and having a sense of impending danger, panic, or doom (World Health Organization [WHO], 2023).

Autism: People who have been identified with ASD have problems controlling their behavior, communicating, and interacting with others (About Autism Spectrum Disorder, 2024). For each person with autism, the severity of their symptoms can range from mild to serious. It shows difficulties with social communication, such as difficulty interpreting nonverbal clues, tone of voice, and facial expressions. Individuals with autism may also exhibit repetitive behaviors, such as flapping their hands or rocking their bodies. Further, they may have specific interests that they are intensely focused on.

Additionally, people with autism may have sensory sensitivities to sounds, textures, or other stimuli. While there is no known cure for autism, early intervention and therapy can help individuals with autism learn to communicate effectively, develop social skills, and manage their behavior, enabling them to lead fulfilling lives and reach their full potential (About Autism Spectrum Disorder, 2024).

Board Certified Behavior Analysts: BCBAAs are behavior analyzers with a master's degree who specialize in working with individuals with developmental impairments and other behavioral disorders (Pollack et al., 2024). They employ evidence-based methods to examine client behavior and collaborate with them to identify their needs. They then develop effective behavioral change strategies. BCBAAs assist clients in overcoming hurdles and achieving their goals, whether improving social skills, controlling emotions, or reducing undesirable behaviors. The Behavior Analyst Certification Board (2023) stated that these professionals work in clinics, hospitals, and schools. They cooperate with other doctors to provide comprehensive care.

Assumption

The participants of this study were BCBAAs who work with individuals diagnosed with ASD. I assumed that the BCBAAs are experiencing anxiety symptoms because of various aspects and demands of their job. I also assumed that the participants possessed BCBA credentials, were representative samples, had access to Zoom for interviews, and were honest in their responses.

Scope and Delimitations

The scope of this study was to explore the perceived anxiety symptoms of BCBAs who work with individuals on the autism spectrum. I delimited the study by focusing on BCBAs and not including other professionals who may also work with individuals with ASD, such as RBTs or behavior technicians. This omission discouraged potential participants from taking part in the study, as they may have perceived a lack of understanding on my part regarding their challenges and experiences. I did not collect data on how long they have been practicing as BCBAs. Fiebig et al. (2020) showed that people who work with people who have ASD are emotionally exhausted. These results were especially worrying because newly certified BCBAs make up almost half of all BCBAs in the world, and about 88% of them work with people who have ASD or conditions linked to it.

Additional occupations involve the autistic community, but this study solely involved BCBAs. These include behavior technicians and RBTs. This is because behavior technicians and RBTs are responsible for carrying out the strategies developed by BCBAs (Ralston & Brown, 2023). BCBAs are responsible for working with a multidisciplinary system, having direct contact with parents and schools, working in the home, and managing maladaptive behaviors. This is added work and stress that is not faced in the other positions.

Limitations

It is important to note that this study could have a few limitations. One limitation was that I might not have gotten as many participant responses as possible because I did

not indicate I am a BCBA. This could have made potential participants feel hesitant or guarded about joining the study. I only interviewed BCBA's. This could limit the generalizability of the study since other professions also engage with people with autism in different capacities. Moreover, since I was not specifying a definite number of male or female BCBA's, the study may portray a one-sided view, as 88.63% of BCBA's are female and only 11.10% are male, according to the Behavior Analyst Certification Board (2023). Culture was also not considered which could have an impact on the clients progress due to varying views regarding diagnosis and treatment.

Summary

Recent studies have suggested that BCBA's endure prolonged periods of high demand that go unnoticed, leading to burnout. These professionals work in high-stress environments, but their psychological well-being has not been thoroughly examined. I conducted a qualitative study to investigate the perceived anxiety symptoms of BCBA's working with individuals with autism. Emotions significantly impact how a person processes information and makes decisions (Liu et al., 2019). An imbalance between the demands placed on an individual and their mental health can have negative consequences. Stressors like a heavy workload, intense time pressures, occupational risks, decision making, and lack of support can contribute to the development of anxiety symptoms (Hu et al., 2022). If professionals are unaware of their anxiety symptoms, they cannot take steps to reduce them. This can lead to decreased productivity and increased mental health issues. In Chapter 2, I focus on the literature and current research on BCBA's' stressors and provide a better understanding of their demands.

Chapter 2: Literature Review

Introduction

Professionals who work with people who have mental or behavioral problems will likely have higher stress levels than professionals who work with people who have other kinds of challenges, like intellectual or physical ones (Bottini et al., 2020). Approximately 88% of BCBA's work with individuals diagnosed with autism (Fiebig et al., 2020). In this literature review, I explore relevant concepts through peer-reviewed articles. The review establishes major connections between anxiety symptoms in BCBA's and the heightened mental health toll they face while trying to meet clinical expectations. I explore anxiety symptoms of BCBA's who directly work with those on the autism spectrum and the possible impact if left unaddressed. According to Mellifont (2019), mental health issues can negatively impact the effectiveness of interventions, work outcomes, treatment expenses, and work attendance. The variables related to anxiety symptoms of BCBA's reveal a gap in the literature. Therefore, this area requires further research to provide additional supportive evidence for the themes uncovered in this study since previous research was based on news, text, and reports and not formally researched with individuals. The following topics are included in this chapter: search strategies, theoretical frameworks, and variables and concepts.

In this chapter, I cover several topics. First, I cover the theoretical foundation, which provides two distinct theories, the James-Lange theory and cognitive appraisal theory, discussed in the examined topic. I also examine the recent literature on the

studied subject to provide a background of the current state of research. I highlighted the research gap that motivated this study and stressed its significance and relevance. Finally, the limitations and significance of the study are examined.

Literature Search Strategy

The literature search was conducted using online resources including the Walden University Library. Searches were conducted in Walden University Library databases, including PubMed, SAGE Journals, APA PsycINFO, and Taylor and Francis Online. Research Boolean operators were used, and searches included *BCBA and anxiety*, *BCBA and burnout*, *anxiety and work performance*, *fatigue, and anxiety*, and *BCBA and mental health concerns*. The scope of the literature review included peer-reviewed articles from 2010 to 2023. Classic papers linking these variables include Lazarus and Folkman (1984) on cognitive appraisal theory.

Theoretical Foundation

Various external factors lead to emotional imbalances that can significantly impact one's mental health. In 1966, Lazarus introduced cognitive appraisal theory as an extension of the James–Lange theory of emotions (Coleman & Snarey, 2011). Unlike the latter, cognitive appraisal theory accounts for thoughts and other cognitive activities. The theory suggests that stress occurs when individuals perceive an imbalance between their demands and ability to cope effectively. Lazarus and Folkman, in 1984, observed that stress and anxiety share numerous emotional and physical symptoms. Exploring the James–Lange theory of emotions is necessary to comprehend cognitive appraisal theory better.

James-Lange Theory

The James–Lange theory was introduced in the 19th century. The theory suggests that emotional responses begin with unconscious physiological changes such as increased heartbeats or sweating, followed by interpreting these changes to create the feeling of an emotion (Coleman & Snarey, 2011). D'Hondt et al. (2010) stated that the Cannon-Bard theory indicates that emotional urges set off processes in the brain that cause feelings and physical responses. This is what led to the James-Lange theory idea.

James was the first psychologist to recognize the importance of physiological alterations in emotional responses (Coleman & Snarey, 2011). James's experience assessment reflects his emotional reaction to physical changes (Coleman & Snarey, 2011). This contrasted with the prevailing opinion among specialists at the time, which held that responses originated primarily in the mind and that physiological changes were only a secondary response to stimuli. Lange supported the recently developed theory of emotions, which had its roots in James's work which had challenged this notion earlier. The James–Lange theory suggests that after interpreting a stimulus, a bodily reaction occurs, triggering an emotional response. James explained that this process happens rapidly, with reflex currents passing through pre-ordained channels, altering muscle, skin, and viscus conditions. The resulting alterations combine with the original object in consciousness, transforming it from a mere perception into an emotionally felt object (Coleman & Snarey, 2011). But, after an event occurs, a person becomes aroused, interprets the event, and subsequently identifies the emotion. This theory did not account for multiple emotions producing the same physiological responses.

This research would later lead to Lazarus's cognitive appraisal theory, which showed that the event leads to cognitive appraisal, then a physiological response with emotions occurring simultaneously (Coleman & Snarey, 2011). Cognitive appraisal theory departs from Lange's thoughts that an event elicits a physical response before an emotion. This is the first time it is presented in a way a person determines their ability towards a situation, and then the physical and emotional responses occur afterward.

Based on the cognitive appraisal theory, emotional experiences are caused by physiological responses (Ali, 2016). As such, examining the experiences of BCBA's and the nature of their work can serve as a foundation to learn about the link between their work demands, how they feel about their ability to manage what is in front of them, and the experience of anxiety symptoms that they may have due to it. The James-Lange theory describes how physiological responses are experienced before emotional experiences (Coleman & Snarey, 2011). By using cognitive appraisal theory and looking at the BCBA's work demands and emotional experiences, we can better understand how their work demands lead to physiological responses similar to those experienced in anxiety.

The Cognitive Appraisal Theory

In the 1960s, Lazarus developed a theory of emotions based on cognitive appraisals and other emotional components affected by appraisals (Ali, 2016). According to his multidimensional appraisal theory, emotional responses involve three stages: (a) cognitive appraisal, (b) physiological responses, and (c) action. Lazarus attempted to answer two essential questions: What are the appraisals underlying each emotional

reaction?, and What are the determining antecedent conditions of these appraisals? With answers to these questions, Lazarus believed an understanding of the nature of emotions could be derived from studying why individuals experience certain emotions in specific situations and why emotional reactions differ from person to person, even in similar cases (Ali, 2016).

Lazarus's cognitive appraisal theory emphasizes how the mind assesses physiological sensations or awareness of stimuli (Ali, 2016). He proposed that reflexes, drives, and emotions are all responses that help us meet our needs in the environment. The responses, however, differ in their adaptability. Reflexes, such as swallowing or blinking, are mostly involuntary fixed action patterns that produce the same response each time. Drives, such as thirst or hunger, are motivated by predictable behavior classes, but the reactions can vary. Conversely, emotions such as anger or anxiety enable greater adaptability to meet the environment's specific needs of the environment (Ali, 2016).

Liu et al. (2019) showed that situational factors and cognitive appraisal influence anxiety and physiological changes. Based on their findings, changes in the cognitive appraisal of a stress task could improve cardiovascular functioning and reduce bias to negative stimuli. This implies physical benefits when a situation is perceived as manageable. However, when individuals believe they cannot manage a task, anxiety symptoms can arise.

Litwic-Kamińska (2020) reviewed cognitive appraisal in athletes to see whether interpreting a stressful situation changes their coping methods. It was shown that athletes who saw stress as a challenge and aimed to achieve a goal or victory could cope better.

Thus, people with positive appraisals can use more coping strategies, making them more adaptable.

D'Hondt et al. (2010) maintained that emotions perceived through visual stimuli could trigger brain-body responses crucial to overall health and physical well-being. Emotions act as a crucial link between our mental and physical health. The intensity of central and peripheral emotional responses can vary depending on the individual personality traits and the belief that the expected demands can be met. Some people may exhibit weaker emotional responses to stimuli that evoke emotions, while others may show stronger reactions.

Ma et al. (2021) found that an individual's goal orientation impacts how they perceive challenges and stressors. Their goals and abilities determine an employee's perspective on stressors as obstacles or opportunities. Transactional theory suggests that personal characteristics, including beliefs, values, and goals, are crucial factors in cognitive appraisal. These elements shape how individuals perceive stressors' significance and consequences, influencing their appraisal. Consequently, differences in appraisal processes among individuals may impact the effect of challenges and stressors.

The cognitive appraisal theory applies to the current study. It relates to how BCBA's interpret the demands of the job, their ability to cope, and how those appraisals, in turn, could lead to the experience of stress and anxiety. According to the cognitive appraisal theory, when an individual perceives a discrepancy between the demands of their environment and their ability to cope with those demands, then stress and anxiety can manifest as a result (Epel et al., 2018). Acquiring knowledge surrounding BCBA's

cognitive appraisals of their working experiences about job demands could help illuminate the potential antecedents between the job demands and anxiety symptoms.

Literature Review Related to Key Variables/Concepts

Autism

ASD is a neurological disability with an onset at an early age. Early diagnosis can be reached in children as young as 2.5 years old. Individuals with ASD typically experience difficulties in social communication and interaction and exhibit restricted or repetitive patterns of behaviors or interests (About Autism Spectrum Disorder, 2024). According to the American Psychiatric Association's Diagnostic and Statistical Manual, Fifth Edition (DSM-5) (2013), to be diagnosed with autism spectrum disorder, one must have deficits in three areas of social communication and interaction and two of four types of restricted repetitive behaviors. Social communication and interaction issues include deficits in social emotion reciprocity, ranging from abnormal social approach to failure to hold back-and-forth conversations, reduced sharing of interests, emotions, and affect, and failure to initiate or respond to social interactions. Deficits in nonverbal communicative behaviors used for social interaction include integrated verbal and nonverbal communication, abnormalities in eye contact and body language, failure to understand gestures, lack of facial expressions, and nonverbal communication. Deficits in maintaining and developing relationships include difficulties adjusting behavior to suit social contexts, sharing imaginative play, making friends, and maintaining interest in peers (American Psychiatric Association, 2013).

A person may also exhibit restricted and repetitive behaviors, including stereotyped or repetitive motor movements or speech, lining up toys, flipping objects, and echolalia, as well as inflexible adherence to routine, sameness, ritualized patterns of verbal and nonverbal behavior, difficulty with transitions, ridged thinking patterns and greeting rituals (American Psychiatric Association, 2013). These individuals may also have highly restricted and fixated interests that are abnormal in intensity or focus. Finally, they may demonstrate either hyper- or hypo-reactivity to sensory input or exhibit an unusual interest in sensory aspects in their environment.

These symptoms manifest in the early developmental periods and cause clinically significant impairment in social, occupational, or other critical areas of current functioning (American Psychiatric Association, 2013). Intellectual disabilities or global developmental delays cannot better explain them. Once ASD is determined, a severity rating is given with a one, two, or three. Level 1 individuals require support due to difficulties in social interactions, repetitive behaviors that may interfere with daily functioning, and difficulty redirecting fixated thoughts. Level 2 individuals require substantial support. They exhibit delays in verbal and nonverbal communication, limited interest or ability in social interactions, restricted interest, and repetitive behaviors that are obvious and interfere with functioning in multiple contexts. They appear distressed when their interests or behaviors are interrupted. Level 3 individuals require highly substantial support as they have severe impairments in daily functioning. They have limited initiation of social interaction and minimal response to social overtures by others.

They also appear fixated on rituals or repetitive behaviors that interfere with daily functioning and handle change and redirection.

Kohane et al. (2012) reviewed studies from three general hospitals and one pediatric hospital in Boston that examined over 14,000 individuals under age 35 who had ASD. They determined comorbidities among those with ASD and compared the comorbidity prevalence of individuals under age 18 with individuals aged 18–34 years old. The findings showed that comorbidity was a significant concern. Of the patients with ASD, 19.44% had epilepsy, 2.43% had schizophrenia, 0.83% had inflammatory bowel disease (IBD), 11.74% had bowel disorder with IBD, 12.45% had central nervous system or cranial anomalies, 0.79% had diabetes mellitus Type 1, 0.47% had muscular dystrophy, 1.12% had sleep disorders, and 0.67% had autoimmune disorders. Three of the comorbidities increased when comparing ages 0–17 with 18–34 with $p < 0.001$, and they included schizophrenia (1.43% vs. 8.76%), diabetes Type 1 (0.67% vs. 2.08%), and IBD (0.68% vs. 1.99%) (Kohane et al., 2012).

Research has also indicated that individuals with ASD are at a higher risk of experiencing comorbid psychiatric disorders than those without. About 40% of people with ASD may have two or more disorders, and almost 70% are likely to have at least one condition (Ivanović, 2021). Compared to children with intellectual challenges, those with ASD are observed to have a stronger connection with psychiatric comorbidities. The propinquity of psychiatric disorders can exacerbate symptoms associated with ASD, for example, restlessness, emotional detachment, social isolation, aggressiveness, irritability, and self-injury. Depression is four times as common in people with ASD than in the

general population. About 30% of people with ASD also have a mood problem, making it the most common mental illness that they have at the same time. Etyemez et al. (2020) and Hossain et al. (2020) found that these problems affect half of people with ASD. Etyemez et al. (2020) and Hossain et al. (2020) found that 23–37% of people with ASD had a depressive disorder, and 27–42% had an anxiety disorder.

Board Certified Behavior Analyst

BCBAs are self-employed people with master's degrees who specialize in ABA training. Parents with children with autism and other developmental problems collaborate with BCBAs to help them understand and control their destructive behaviors. BCBAs work with kids and adults of all ages in therapeutic preschools, schools, hospitals, and private workplaces.

BCBAs evaluate, communicate, devise treatment programs, and oversee training. They can supervise BCBAs and RBTs who offer behavioral analysis services. Outside of the treatment of clients with various disorders affecting their behavior, a BCBA will fill three main roles (Behavior Analyst Certification Board, 2023): Outside of the treatment of clients with various disorders affecting their behavior, a BCBA will fill three main roles (Behavior Analyst Certification Board, 2024): (a) Supervise those providing behavior analytic services (such as RBTs and BCaBAs) and those accruing fieldwork hours toward becoming certified on average 2 hours a week, (b) Overseeing assessment of those pursuing RBT certification with the RBT Initial Competency Assessment completed within 90 days of applying or those maintaining their RBT certification to determine whether they are competent in specific tasks commonly conducted by behavior

technicians and (c) Providing the RBT 40-hour training, which is valid for one year, and overseeing individuals who provide it (Behavior Analyst Certification Board, 2023).

The Behavior Analyst Certification Board, Inc. (BACB), a nonprofit corporation founded in 1998, governs behavior analysts with the Board-Certified Behavior Analyst (BCBA) credential. Candidates must complete supervised fieldwork in ABA to earn the BCBA credential, which requires either 2,000 supervised or 1,500 concentrated supervised fieldwork hours, with unrestricted activities accounting for at least 60% of total fieldwork hours. After finishing the required hours and passing the four-hour, 185-question licensure exam, individuals can enter the workforce with a BCBA credential (Behavior Analyst Certification Board, 2024).

Behavior analysts who offer behavior-analytic services face low job satisfaction and burnout. Burnout can stem from prolonged exposure to job-related stress. The BACB (2023) states that the average caseload is six to 16 clients but can vary based on client needs. These are just recommended best practices; no existing research shows whether these recommendations are being followed, especially with the current demand for ABA services. Despite the caseload numbers, BCBAs are still expected to ensure training is provided to RBTs BCaBAs, ensure progress is being made with clients, and assist clients in multiple settings. Besides the heavy workload, BCBAs face several challenges, including burnout, emotional exhaustion, depersonalization, and diminished personal accomplishment. These concerns may result in unethical clinical practices, high employee turnover rates, and dissatisfaction with work-life balance (BACB, 2023).

Fiebig et al. (2020). Kranak et al. (2022) and Plantiveau et al. (2018) showed that two out of every three BCBA's report moderate to high levels of burnout and low job satisfaction, which represents a significant increase compared with earlier studies that showed lower levels of burnout among ABA therapists. Several factors contribute to this, including unrealistic expectations and demands, emotional exhaustion, challenging behaviors, and the lack of administrative support. Specifically, 26% stated high emotional exhaustion, 29% reported high levels of depersonalization, and 50% cited a lack of accomplishment. The main sign of burnout is exhaustion, which can lead to various emotional or mental health concerns. Coping with such situations becomes more complicated when emotional exhaustion sets in, making it difficult to complete day-to-day responsibilities. Key drivers of burnout include the inability to complete tasks and a lack of practical coping skills. Fiebig et al. (2020) also showed that during the COVID-19 pandemic, over 60% of early-career BCBA's experienced burnout, with providers working with individuals with ASD having high levels of emotional exhaustion. These findings are concerning, as newly certified BCBA's account for almost 50% of all BCBA's globally, and approximately 88% serve ASD and related populations.

Bottini et al. (2020) showed that working with individuals who exhibit psychological or behavioral disturbances can cause higher stress levels compared with working with individuals with other disabilities. The need to coordinate with parents and multidisciplinary teams, including psychologists, speech-language pathologists, occupational therapists, and other health providers, can increase BCBA's workload. The unique range of challenging behaviors of comorbidities and co-occurring concerns

associated with ASD contributes to higher burnout rates and makes ASD interventions more challenging to develop. Some children with ASD possess average or above-average intelligence, which can make their challenging behaviors harder to tolerate, further contributing to burnout, which is linked to anxiety.

Slowiak and DeLongchamp (2021) found that BCBAs who face a heavy workload and lack job-supportive resources, including training, feedback, and supervisors' support, are prone to physical and mental exhaustion. The research findings showed that about 72% of these professionals reported experiencing moderate to high burnout levels. These results stress the significance of implementing self-care strategies and job crafting practices, which refer to the tasks that allow for professional development, bring satisfaction, expand an employee's scope of work (Kardas, 2023), maintain a healthy work-life balance, improve work engagement to alleviate burnout on both the individual and collective levels.

Plantiveau et al. (2018) discovered that two-thirds of early-career behavior analysts from a sample size of 183 participants reported experiencing varying degrees of emotional exhaustion and burnout. The researchers found that 37% and 26% of the participants experienced moderate and high levels of burnout, respectively, and identified professional social support, age, and the quality of supervision for students and behavior technicians as predictors of burnout. Dounavi et al. (2019) surveyed 92 international behavior analysts and found that 37% experienced emotional exhaustion and burnout, with excessive work demands associated with burnout.

Zhang, Ye, et al. (2020) showed that presenting symptoms of stress, anxiety, and depression serve as an indication of the significant psychological strain caused by burnout. The impact of burnout extends beyond impairing the ability of medical professionals to provide adequate care to clients to posing a threat to their mental well-being, manifesting anxiety, for instance. Zhang, Ye. et al. (2020) also revealed that one of the critical consequences of burnout is the development of psychological issues among affected employees, identifying a notable association between burnout and a higher prevalence of anxiety. The immense pressure resulting from unfavorable working conditions, highly stressful relationships between caregivers and patients, and shortages of medical staff further highlight the heightened vulnerability of medical personnel to developing anxiety symptoms.

According to research conducted by Kavelaars et al. (2023), individuals with anxiety disorders are more likely to experience reduced psycho-social functioning, decreased life satisfaction, impaired relationships and social interactions, greater stress, and difficulty sleeping compared to non-anxious individuals. These factors contribute to an overall lower health-related quality of life. In addition, the severity of anxiety symptoms is a predictor of lower health-related quality of life. Anxiety disorders are often associated with other psychiatric disorders, with depression being the most common. It is estimated that 60% of individuals with anxiety also have symptoms of depression. Comorbidities typically increase the severity of prognosis, symptoms, and impairment, leading to lower work productivity (Kavelaars et al., 2023).

Kasper (2006) showed that despite the high prevalence, anxiety disorders are underdiagnosed, misdiagnosed, and inappropriately treated. Underdiagnosis is linked with under-treatment: less than one in five patients with an anxiety disorder receive appropriate medication. For individuals with undiagnosed or untreated anxiety disorder, there are negative consequences for both the individual and society. These include disability, reduced ability to work leading to loss of productivity, and an elevated risk of suicide. These factors contribute to a reduced quality of life (Kasper, 2006). These findings correlate with recent studies by Brahmhatt et al. (2021). Those researchers showed that without early recognition and treatment, patients could suffer psycho-social and occupational impairment, including higher rates of divorce and unemployment, poorer quality of life, and greater reliance on public assistance. The presence of an anxiety disorder itself is a risk factor for developing other anxiety, mood, and substance use disorders.

Anxiety

Anxiety is a psychological and physiological condition with cognitive, physical, emotional, and behavioral components. Anxiety is a psychological state that serves a protective role in potentially dangerous situations. It may be an adaptive reaction that drives coping strategies in the face of potential uncertainties, but if it becomes excessive and unaddressed, it can impede an individual's proper functioning (Koutsimani et al., 2019; Park et al., 2022).

Prolonged anxiety can cause psychological distress and interfere with daily functioning. Even though anxiety is seen as a genetic reaction to stressful events, it can

be split into two related constructs: trait anxiety and state anxiety. For research purposes, state and trait anxieties will be discussed briefly to provide a better understanding of anxiety characteristics (Saviola et al., 2020).

State anxiety refers to an individual's reaction to a situation after appraising it as threatening. Trait anxiety reflects an individual's proneness to anxiety, while state anxiety is their reaction to a situation. Burnout and anxiety symptoms are significantly correlated with each other, with the strongest link existing between anxiety and emotional exhaustion. This interaction between work situations and individuals' personalities results in burnout and, by extension, a state of anxiety (Saviola et al., 2020).

Burnout is a psychological condition that arises from prolonged exposure to interpersonal stressors at work. Burnout can manifest in various forms, such as depersonalization, reduced sense of personal accomplishment, and emotional exhaustion. Emotional exhaustion is the primary symptom of burnout, characterized by excessive emotional stress and exhaustion after interacting with others (Zhang, Tang, et al., 2020).

Ivandic et al. (2017) showed that negative emotions, including anxiety and tension, can have severe consequences on workers' health and job performance if left unchecked. Anxiety can affect various aspects of a person's life, including work. Negative emotional states can cause a bias toward adverse events, and unpleasant experiences can deplete workers' cognitive resources, leading to poor work performance. Moreover, these emotions can lower self-control, resulting in low self-esteem, excessive cognitive appraisal, and poor decision-making. People with mental health issues, including anxiety, have 15–30% lower employment rates than the average population,

and the long-term unemployment rate is twice as high. Those who successfully find jobs have an increased chance of experiencing workplace inequities, lower pay, and discrimination. Anxious people exhibit higher absenteeism and presenteeism rates and reduced productivity due to poor job performance. Anxiety is also responsible for one of the greatest productivity loss-related expenditures of any chronic condition (Ivandic et al., 2017).

According to Mellifont (2019), a person with mental health issues tends to re-evaluate their work capability. The Anxiety and Depression Association of America showed that employees with anxiety may decline a promotion or other opportunities because the offer requires travel or public speaking, leading them to make excuses to avoid office parties, staff lunches, and other events with coworkers. Dealing with problems, meeting deadlines, maintaining personal relationships, managing staff, participating in meetings, and making presentations were frequently cited as difficult situations by people with anxiety (Anxiety and Depression Association of America, 2022).

Mellifont (2019) showed that anxiety symptoms can have a significant impact on the workplace. Anxiety can lead to poor work outcomes, increased treatment expenses, and reduced attendance. Employees who suffer from anxiety disorders are more likely to experience functional limitations in their work. Mellifont (2019) has also observed that reducing the symptoms of mental illness can improve worker productivity. People with mental health issues tend to assess their work capability thoroughly; this helps explain how anxiety affects performance and the ability to think and focus. Prioritizing mental

well-being in the workplace is essential to improving productivity and overall work performance. The analysis conducted in the Mellifont (2019) study solely relied on eight news texts and 36 journal articles. In-person interviews were not conducted to gather feedback from individuals experiencing anxiety or exhibiting anxiety symptoms despite the profound impact anxiety has professionally and personally.

Slowiak and Jay (2023) conducted a study to explore the relationship between work demands and job burnout among ABA practitioners. The study also examined the impact of supervisor and coworker support and psychological flexibility. Previous research has shown that work demands can increase the incidence of burnout, notably exhaustion, among care staff working with individuals with ASD and intellectual or developmental disability. A limitation of the study was that data was collected only during the COVID-19 pandemic. Slowiak and Jay (2023) believed the pandemic may have forced a sudden shift to telehealth and created unexpected and urgent work demands for employees. For instance, ABA practitioners may have had to learn new technology and use their in-person clinical skills effectively in a virtual work setting while transitioning to a remote service-delivery model via telehealth.

The researchers indicated that the study was about burnout among behavior analysts in times of crisis. The population from which they received data via a web-based survey consisted of students in ABA or ABA-related educational programs and those with relevant professional credentials (i.e., RBT, BCaBA, BCBA, BCBA-D). The inclusion criteria were that individuals must have been:

1. Age 18 years or older

2. Fluent in reading and understanding written English.
3. Currently employed in the field of behavior analysis
4. Actively providing ABA services to clients

As a result, their work demands may have differed from other participants. It is also important to keep in mind that anxiety levels may vary depending on the nature of one's job. The web-based survey format may limit participants' ability to express their thoughts and emotions fully (Slowiak & Jay, 2023).

Gathering first-hand experiences of individuals is crucial, especially in research that aims to understand psychological conditions such as anxiety. The absence of such data limits the study's scope and possibly reduces the validity of its conclusions. This research includes in-person interviews with individuals who experienced anxiety to ensure completeness and accuracy.

The current research offers an outlook on the emotional experiences of BCBAs. This contrasts with prior studies, which have considered external factors, such as COVID-19, or relied on secondary sources or confirmed research but have yet to gather information based on self-reports.

Summary

Numerous recent studies have shown that long stretches of unacknowledged high demand led to burnout for BCBAs. Plantiveau et al. (2018) researched issues with behavior-analytic service providers' weariness and discontent. The authors did not evaluate in their study the relationship between these traits and symptoms of anxiety. The current study shows that occupational pressures, extrinsic effort, and over-commitment

are linked to higher levels of anxiety, which is in line with other research (Koutsimani et al., 2019). The study found a negative correlation between anxiety symptoms and professional efficacy and a positive correlation between emotional exhaustion and skepticism. Conversely, individuals who feel emotionally exhausted, cynical, and less efficient in their work are more likely to experience anxiety.

Chapter 3 presents the research design and methodology, the theories, research questions, data collection techniques, and ethical considerations that formed the basis of the study.

Chapter 3: Research Method

Introduction

In this qualitative study, I aimed to explore the perceptions of anxiety symptoms experienced by BCBA professionals who work with individuals on the autism spectrum. This chapter covers research techniques and study design. I explored how BCBA professionals perceive anxiety symptoms due to working with those who have been diagnosed with autism. In this chapter, I explain the research design and justification as well as my role as the researcher. I discuss choosing participants, conducting interviews, and analyzing the collected information. Credibility, verifiability, trustworthiness, and reliability are considered in the study. I conclude the chapter with study techniques and ethics.

Research Design and Rationale

The following research question guided this study: What are the perceived anxiety symptoms of BCBA professionals who work with the autism population? I explored whether BCBA professionals who work with autistic people experience anxiety. It also focused on the anxiety symptoms of BCBA professionals who work with patients with ASD.

I used a phenomenological approach to examine how people perceive their experiences. Phenomenology seeks to understand the world through the eyes of its participants (Tenny et al., 2022). It investigates how and why participants behave in certain events that occur from the participants' standpoint. Phenomenology investigates actual experiences (Tenny et al., 2022). This study's phenomenological design was ideal because it thoroughly evaluates BCBA professionals' real-world anxiety symptoms. This approach

aligned with my objective of understanding the phenomenon under investigation because it helped to obtain information directly from the participants.

Most interviews in the field of healthcare and qualitative research use a semi-structured framework (Kallio et al., 2016). This is because of how flexible and adaptable semi structured interviews are. The goals and research questions of the study can be accommodated by altering the interview format, which allows for in-depth exploration of the lived experiences and perceptions. One of the main advantages of this method is the ability to promote reciprocity between the interviewer and the interviewee (Kallio et al., 2016). Respondents can express their ideas and emotions in this way, and I can expand on their answers by asking additional questions.

Role of the Researcher

As the researcher, I was the primary instrument for collecting and analyzing data. I was responsible for executing several roles, including conducting semi-structured interviews with BCBAAs, transcribing the audio recordings, and analyzing the data using thematic analysis. My experience as a BCBA has shown me the challenges that autism professionals face. My experiences may influence how I evaluate participants' responses. Bracketing helped me overcome these preconceptions by reducing personal biases like BCBA tiredness or stress (Tufford & Newman, 2012). I could concentrate on the participants' diverse perspectives and narratives without letting my experiences impact my data interpretation. I think that being a BCBA did not make me biased because I have not worked in the capacity of a BCBA since 2022; my occupation may influence how I

understand the participants' responses. When interpreting the findings, I relied on the participants' experiences and assertions instead of mine.

Methodology

Participant Selection Logic

The target population for this study was BCBA's who work with individuals who have ASD. Purposive sampling was used to recruit participants. Purposive sampling was conducted by posting the study invitation and recruitment materials on social media groups focused on ABA and autism. Interested participants were screened to ensure they met the inclusion criteria of being certified as a BCBA and working with individuals diagnosed with ASD. Participants were required to meet the following criteria: (a) Have never worked with me in any capacity, (b) Age 18 or older, (c) Have a master's degree in psychology, education, or applied behavior analysis, (d) Currently certified as a BCBA, (e) Working with individuals who have an ASD diagnosis and (f) Are willing to share their experiences related to perceived anxiety symptoms.

Recruitment was conducted through a Facebook (FB) group focused on ABA and autism. I contacted the administrators of these FB pages using the FB private messenger and requested permission to post a recruiting flyer on their page. Once the administrators replied with the authorization through FB private messenger, I documented the permission request and approval by copying the conversation to a Word document. Once I received institutional review board (IRB) approval, I contacted the FB page administrator again, with the IRB-approved flyer information, for final consent to post on their site.

The justification for using purposive sampling was to ensure that participants had the relevant experience and knowledge to provide insights into the research question (Campbell et al., 2020). The desired sample size of 10 participants was based on the recommendation for phenomenological studies to have a sample size of between five and 25 participants (see Creswell & Poth, 2018). Data saturation was assessed during the data analysis process, and if saturation was not reached with 10 participants, additional participants were recruited until saturation was achieved.

Instrumentation

Data were collected through semi-structured interviews conducted via an audio-recorded Zoom meeting. The interview questions were developed based on the research question and the existing literature on anxiety symptoms and the experiences of BCBAAs (see Appendix A). The questions were open-ended to encourage participants to provide thorough responses. I asked each interviewee the same questions, not skipping or omitting any questions. A psychological expert examined the interview questions before they were approved.

Appendix A, a semi-structured interview guide, was used to collect data for this study. The interview questions were developed with consideration for the research question and prior research on anxiety symptoms and BCBA experiences. The questions were intentionally left open-ended to encourage in-depth responses. Follow-up questions, probes, and comments supplemented the completed guided questions. This method allowed the collection of available data and the investigation of participants' thoughts, feelings, and beliefs about a specific topic by delving deep into personal and sometimes

sensitive matters (DeJonckheere & Vaughn, 2019). A psychology expert evaluated and approved the interview guide, ensuring validity and suitability for the research.

Amstadter (2008) showed that those with anxiety disorders have difficulty with electing an adaptive response or inhibiting a maladaptive response during stressful situations. Due to this, if negative emotions began to surface because of the questions, the participant was informed that they could discontinue the interview at any time for any reason, and data would be discarded. If they were unhappy with the interview, their data would not be used or erased. Before the end of the interview, participants were asked if they would like to add any additional information about how they feel or expand on previous responses. Once all questions were answered, participants were provided with their data and information on the next steps in the dissertation process.

Data Analysis

The data collected through semi-structured interviews were analyzed using thematic analysis. I transcribed the audio recordings verbatim using NVIVO 15. This analysis followed a six-phase process outlined by Braun and Clarke (2006): (a) Familiarizing oneself with the data, (b) Generating initial codes, (c) Searching for themes, (d) Reviewing themes, (e) Defining and naming themes, and (f) Producing the report.

The audio recordings from the Zoom interviews were downloaded and then uploaded to NVIVO 15 and transcribed utilizing Turboscribe. I reviewed the transcripts and coding to ensure accuracy and consistency. The findings were analyzed about the research question to examine how BCBAs' perceived anxiety symptoms impact their

work with individuals with ASD. Any outliers (i.e., responses that did not align with the other participant's responses) were reported and discussed in Chapter 4.

Issues with Trustworthiness

Credibility

Several strategies were used to ensure the credibility of the study. Prolonged engagement with participants was achieved through in-depth interviews, allowing for rich, detailed data collection. Member checking was conducted by sending each participant their interview transcript. Each person was asked to review and verify the content of the interview and if they thought their intended message was conveyed. Triangulation was accomplished by comparing the findings with existing literature (Wood et al., 2020). Participant or source triangulation was used since it allowed for examining data from different respondents collected using the same method. Despite having the same credentials, each participant had a unique and valid view (see Carter et al., 2014).

Transferability

The transferability of a study examines how the work may be used in other situations and with a larger population (Munthe-Kaas et al., 2020; Shenton, 2004). To improve the transferability of the findings, thick descriptions of the research context, participants' characteristics, and the data collection and analysis processes will be provided. This allows the reader to assess the applicability of the findings to other settings or populations with similar characteristics. I discussed the potential for

transferability based on the detailed data obtained from the participants and the commonalities observed across their experiences.

Dependability

Dependability in research complement's reliability. Dependability ensures stability in the research study and the data collection process. I used follow-up, probes, and comments during the interviews to ensure dependability. This technique helped to determine whether respondents were being consistent and telling the truth. To improve transparency and streamline the study's replication in the future, I maintained an exhaustive audit trail that documents every decision made during the data collection, analysis, and interpretation phases (Janis, 2022).

Confirmability

Confirmability entails ensuring that the collected data and analysis are based solely on the experiences and perspectives of the study participants, not personal biases, or biased interpretations of the researcher (Amin et al., 2020). I engaged in reflexivity by maintaining a reflexive journal throughout the study to establish confirmability. I provided direct quotes from participants to support the findings in Chapter 4 to show that the interpretations were grounded in the data and were not influenced by personal biases.

Validity/Reliability

In qualitative research, validity refers to the appropriateness of the tools, processes, and data. It entails determining whether the research question is suitable for the desired outcome, selecting a methodology suitable for answering the research question, ensuring that the design is valid for the chosen methodology, and using

appropriate sampling and data analysis techniques (Leung, 2015). The results and conclusions should be valid for the sample and context under study. Reliability, conversely, refers to consistency. In qualitative research, a margin of variability in results is acceptable if the methodology and epistemological logistics consistently produce ontologically similar data. However, the data may differ in richness and ambiance within similar dimensions (Leung, 2015). I used a coding and analysis system specifically designed for qualitative data. As for reliability, previous research has established a correlation between burnouts and BCBAAs, which the current research seeks to expand upon.

Ethical Considerations

The study commenced after obtaining approval from the Walden University IRB. The Walden University IRB provided permission to the researcher before any contact with the researcher. Once IRB permission is granted, then several steps will follow. Informed Consent was obtained from all participants before their involvement in the study. The informed consent form detailed the procedures to guarantee privacy and safeguard data. These safety measures included assigning each participant a unique identification number, storing this information with their number to their identity in a safe place (e.g., a locked filing cabinet in the researcher's home office), and storing all data on a password-protected computer that only the researcher could access.

To prepare for the role of the interviewer, I established the following steps to ensure participant safety and address risks to emotional health. If, at any point during the interview, I observed the participant crying or otherwise showing signs of distress, I

paused the interview and asked if the participant was fine. I will reiterate that the participant can end the interview at any point with no consequences and that the participant's well-being is my greatest concern. If the participant does not wish to continue, I provided the participant with five minutes to de-escalate and settle themselves. If, after those five minutes, the participants wished to continue, they could take another five-minute break from the interview to compose themselves before continuing. Suppose the participant's reaction to the interview is more extreme and appears to experience any other extreme emotional reaction. In that case, a list of resources was provided, or they could contact the mental health crisis hotline at 988.

Not all personally identifiable information was collected, and unidentifiable numbers were assigned to ensure participant confidentiality. If hard copies of data were deemed necessary after data collection, they were stored in a locked filing cabinet in the researcher's home office.

Data collected through Zoom interviews was recorded using the built-in recording feature within the Zoom platform. I started the recording at the beginning of each interview by clicking the "Record" button. The recordings were saved to my password-protected computer. Once the recordings were transcribed verbatim and verified for accuracy, they were permanently deleted from my computer and the Zoom platform. The transcribed data was stored on my password-protected personal laptop, and I was the only one with access to the data.

In accordance with Walden University's data retention policy, all research data will be securely stored for a minimum of five years following the completion of the

study. Electronic data will be permanently deleted, and hard copies will be shredded and disposed of securely on May 1, 2029.

I had no conflicts of interest or power differentials with the participants. There were no financial incentives or costs associated with participation in the study. I stressed the voluntary nature of participation and the right to withdraw at any time without consequence.

Summary

The expectations placed on BCBAAs can lead to a heightened mental health burden. It is essential to consider the impact on anxiety levels, as it may negatively affect interventional efficacy, work outcomes, treatment expenses, and attendance at work (Mellifont, 2019). This qualitative study aimed to explore anxiety symptoms of BCBAAs who work with those with autism. The research methods, research question, and design were summarized in this chapter. It also covered participant requirements, data collection techniques, my role as a researcher, and data coding. Ethical issues surrounding trustworthiness, such as confirmability, credibility, transferability, and dependability, were also discussed. In Chapter 4, the study findings are presented and discussed.

Chapter 4: Results

Introduction

The purpose of this qualitative phenomenological study was to explore the perceptions of anxiety symptoms experienced by BCBA professionals who work with individuals on the autism spectrum. The focus was on better understanding this issue, which has been overlooked in previous studies focusing only on burnout. This study's research question was "What are the perceived anxiety symptoms of BCBA's who work with the autism population." In Chapter 4 I provide an overview of the study's setting, participant demographics, the data collection process, how the data was analyzed, evidence of the study's trustworthiness, and then the study's results. Lastly, in a summary section, I provide a synopsis of the chapter and lead into the final chapter of this dissertation.

Setting

Participant interviews were conducted via Zoom in the privacy of my home office. The setting allowed me to talk without interruption and audio record the Zoom interviews. The participant's location was unknown to me. The participants selected locations. I was not aware of any conditions that created undue influence on participants during their interviews. There were no deviations from the interview protocol delineated in Chapter 3.

Demographics

A total of 10 participants were included in the study. Two participants identified as male and eight as female. No other identifying information was recorded for the study.

I did not cull age or years of experience, location of residence, or racial/ethnic background. Cultural norms could have played a role in this study but were not asked about either. The setting in which each BCBA worked (i.e., clinical, school, or outreach) was also not asked. It was presumed that each participant was over the age of 18 based on the inclusion criteria that they agreed and consented to. Unidentifiable numbers were assigned to ensure confidentiality during Chapters 4 and 5. All participants were licensed BCBAs currently working with those diagnosed with Autism.

Data Collection

Ten participants were recruited online through social media and referrals. Interviews of each individual took place via Zoom (audio only, no video) between July 23, 2024, and August 11, 2024. Participant interviews lasted between 16 to 23 minutes, averaging 17.9 minutes. Despite using Zoom, I did not have the transcription feature. Once the audio file was downloaded, it was then inputted into TurboScribe for transcription.

Prior to being interviewed, each participant was sent an informed consent form via email. If they met the inclusion criteria and agreed to participate, they consented to the interview by responding “I consent” to the same email. The participants then sent me their availability for the interview. Once I received their availability, a Zoom link was sent to the participant for the agreed-upon day and time.

After each participant joined the Zoom session, I introduced myself, used their name as a form to ensure their identity, and asked if they had any questions before the interview began. Interviews were only performed with the audio function operating, all

interviews occurred between the times of noon and 7:00 pm during the week. All interview questions were asked in the same sequence with all participants. After the participants answered the questions and the session was completed, member checking was conducted by sending each participant a transcribed transcription of their interview. Each person was then asked via email, which was previously used, to review and verify the content of the interview and if they felt their intended message was conveyed. Participants then responded back via email about the transcript with varying responses, including “looks good,” “looks correct to me,” and “looks great to me,” with no specific time frame given. There was one variation within data collection in which participants were not just recruited through social media but also through word of mouth from participants who were recruited by social media. There were no unusual circumstances encountered in the data collection process.

Data Analysis

To ensure the accuracy of the transcription, I familiarized myself with the data. I listened to the audio and then amended the transcript with the correct information as needed. These corrections included me deleting words in the transcript for when the participant said “um” or repeated words next to each other. Familiarization is crucial in thematic analysis (Creswell & Guetterman, 2019). Familiarization also involved reading the final transcript and listening to the audio. Listening to the audio helped me identify possible themes before running the transcription through NVIVO 15. Listening to the transcriptions was consistent with my thoughts about possible themes. I listened to the audio due to not having access to the Zoom’s transcription feature and I wanted to ensure

the accuracy of the transcription service I was using (i.e., Turboscribe). After listening to the audio and identifying the possible themes, the next step involved coding the data utilizing thematic analysis. NVIVO 15 was used to analyze themes and codes. The responses were collected into thematic categories. To understand the themes presented in the interviews, verbatim textual examples are included in Chapter 4 as support directly from the data.

After identifying the themes, I began the next step of thematic analysis by verifying and reviewing the themes against the data collected in NVIVO 15. This was completed by reviewing the themes created by NVIVO 15 and the quotes NVIVO 15 attached to them. The codes for work life balance included working evenings, working late, and late at night. Codes for stress included state of arousal, overwhelmed, and stress. Codes for workload/time management included taking a lot longer, taking stuff home, and much stuff. Codes for job satisfaction included rewarding and joy. Codes for anxiety included bad anxiety and anxiety. Table 1 shows the themes and codes resulting from NVIVO 15 and my direct verification.

Table 1*Thematic Analysis*

Codes	Themes
Working evenings	Work life balance
Working late	
Late at night	
State of arousal	Stress
Overwhelmed	
Stress	Workload/time management
Taking a lot longer	
Taking stuff home	
Much stuff	Job satisfaction
Rewarding	
Joy	Anxiety
Bad anxiety	
Anxiety	

These codes and themes were created based on participant quotes. An example of work-life balance was indicated by P7, stating,

I was working late a lot when I was in the center and then also when I was doing outreach because I was often out doing outreach when my kids and my family were home from school and things for the day.

Regarding stress, P1 stated, “So, I always feel like I’m in a constant state of arousal; even when I’m trying to wind down and go to bed, I feel like I’m constantly overwhelmed”.

Regarding Workload/Time Management, P5 reported, “And I think it’s just the amount of things that are put on me as a BCBA, like the amount of plates that I have to juggle is astounding.” Job satisfaction was shown by P4 stating, “Like I mentioned, anxiety and things like that, but I would say the joy that you feel after we have made progress outweighs that.” Finally, anxiety was shown by P1, stating, “I have been diagnosed with

depression and anxiety because of just the sheer amount of just workload, but I have also noticed that my reaction to my child and my partner have been elevated”.

Evidence of Trustworthiness

Trustworthiness is a cornerstone of valid qualitative research (Nowell et al., 2017). In this section, I present aspects of this study’s trustworthiness, including the study’s credibility, transferability, dependability, and confirmability. I begin with a review of the study’s credibility.

Credibility

Credibility refers to the authenticity of the data reported due to the strategies implemented, such as member checking and triangulation (Creswell & Gutterman, 2019). For this research, I attempted to use the methods described in Chapter 3: prolonged engagement, member checking, and triangulation (e.g., data and participant or source triangulation).

I spent time with each participant to allow for open and honest dialogue, utilizing follow-up questions when needed. On average, the interviews lasted only 18 minutes long. Even though prolonged engagement does not have a definitive length of time since there is no research consensus (Carter et al., 201), due to variations in research, I cannot say that my study met this criterion. However, the interviews’ durations still offered a considerable amount of understanding of each participants’ first-hand experiences of anxiety associated with their work.

Through triangulation, I was able to present the symptoms of participants reported using direct quotes, then comparing them to previous research findings. Credibility is

strengthened by reviewing previous research (Carter et al., 2014). By comparing the transcriptions of my participants to previous research I filled the gap. Previous research had shown that mental health issues can negatively impact the effectiveness of interventions, work outcomes, treatment expenses, and work attendance (Mellifont, 2019). The main sign of burnout being exhaustion, can then lead to various emotional or mental health concerns (Fiebig et al., 2020; Kranak et al., 2022; Plantiveau et al., 2018). Zhang, Ye, et al. (2020) showed that presenting symptoms of stress, anxiety, and depression serve as an indication of the significant psychological strain caused by burnout. Lastly, member checking was performed by sending transcripts to each participant requesting that each confirm and verify the content of their interview and request any changes they felt needed due to a deviation from their intended message. There were no deviations thus establishing increasing credibility.

Transferability

The transferability of a study examines how the work may be used in other situations and with a larger population (Munthe-Kaas et al., 2020; Shenton, 2004). For this research, a thick description was used to the best of my ability. Semi-structured interviews allowed for more of an in-depth understanding of people's lived experiences. Prior experience of work-life balance, stress, workload, time management, job satisfaction, and anxiety are symptoms that most people encounter. Mellifont (2019) established the link between anxiety with 36 articles and eight news texts for work performance. Based on the information gathered by the participants this enables future

research to evaluate the relevance of the findings and apply them to other contexts or populations with similar characteristics.

Dependability

Dependability is the consistency of the data collection process (Janis, 2022). I used follow-ups, probes, comments, and an audit trail to maintain dependability and fidelity throughout the study and data collection process. Future researchers could replicate this study. Member checking increased dependability. In the case of this study, I asked the participants to review and verify the content of their interview. If they thought their intended message was conveyed the participant affirmed such. If not, then the participant provided edits. No participants requested for edits to occur.

Confirmability

Confirmability ensures that the data and analysis are based solely on the experiences and perspectives of the study participants, not personal biases or biased interpretations of the researcher (Amin et al., 2020). Confirmability was demonstrated by providing direct quotes from participants to provide support for the reported themes, showing that the interpretations were grounded in the data and were not influenced by personal biases.

Results

In this phenomenological qualitative research study, I asked one research question: What are the perceived anxiety symptoms of BCBA who work with the Autism population? This research question was the guide for constructing the nine interview questions (see Appendix A). Themes emerged from the data and are reported in the Data

Analysis section. These themes are: Work-Life Balance, Stress, Workload/Time Management, Job satisfaction, and Anxiety (see Table 1). This results section presents information theme- by- theme, in the order noted in Table 1.

Work-Life Balance

No specific subthemes or categories were noted and there were no discrepant experiences. All 10 participants indicated struggles with, or previously struggled with, creating a work-life balance. P1 indicated

I feel as if I don't have any work-life balance. I don't have the work-life balance I would like to have, and I am striving to get that balance, but I feel that if I do give that work-life balance, my clients will not get the quality of care that I want them to have.

P5 shared, “So I think you have to sacrifice some of your work-life balance in order for my work to be what I expect it to be for myself, like the expectations I have on my own.”

P6 stated, “I have a hard time sometimes shutting off work and balancing with my personal life. It's something that I have been really working for.” P7 reported

In the clinical environment, there was a lot less balance. I was working late a lot when I was in the center and then also when I was doing outreach because I was often out doing outreach when my kids and my family were home from school and things for the day. So, and sometimes, trying to meet billable hours, even like on a weekend, if I didn't meet them during the week or catching up on things late at night because I didn't have time to do it during the day and there were important deadlines.

P8 shared,

Balance. What is balance? No, I feel like balance is, my balance is not good because I take a lot of stuff home, and I feel like I shouldn't be taking work home. And I think that's what makes me want to; you may want to go into a new field.

P2, P3, P4, P9, and P10 shared similar views but indicated how they have grown in this area. P4 reported, "That's always been a bit of a struggle. I have three kids, so I have to do that. There comes a point where I just have to turn it off and draw that line for myself." P3 shared

Currently working in a school setting, it's been much easier for me to navigate work-life balance because we're not as tied down to report writing and all the things that come with the clinical setting. But in a clinic setting, your job never stops. It never turns off. From the moment that you open your eyes until the moment that you go to sleep, you are doing some kind of work that's related to being a BCBA.

P2 stated, "I think that I've grown in this area of being able to leave, you know, work at work and home at home." P9 reported

So, um, it's a lot harder as a mom to juggle all of it because I would make, it was hard when I had to work, you know, those, those, um, key times of like three to 7 PM. And it's like, my kids got home from school, and I wasn't there for homework. I wasn't there, um, for sporting events. I missed a lot when I was in that position. And that was one of the big things that I moved out of that position or wanted to work in either a school-based or, um, that because in the world of

ABA doing in-home, um, my work-life balance was bad as a mom. It just, it was the time that I had to be with everybody else's kids was the time that I felt guilty that I wasn't with my own kids. So, um, and then, like I said, I was working evenings and weekends in that position. So, it was probably poor. I work-life balance as I've gotten older and gotten into different positions. It's a lot better now.

P10 shared

So, prior, I felt like I had no personal life. Even if I would, you know, like I would start at seven o'clock, eight o'clock in the morning, I would be working until like eight, 9 p.m. And it was just expected of me. It just, it was not a good work.”

With a current shift with P10 reporting

Versus now, my work-life balance, even with school, and I do have daily challenges, but I do have a really good work-life balance where we're not expected to work, you know, like long days. You know, you work what you need to work, and you go home, and that's it.”

In summary, it is challenging to maintain a work-life balance due to the demands placed on BCBA's and the personal responsibility they believe they have to their clients; it is something that each BCBA views as needed, even if they themselves do not have it. This leads to the next theme: stress.

Stress

No specific subthemes or categories were noted and there were no discrepant experiences. Each participant shared how they viewed stress when it pertains to their role as a BCBA. P1 reported,

So, I always feel like I'm in a constant state of arousal; even when I'm trying to wind down and go to bed, I feel like I'm constantly overwhelmed. I feel like I'm constantly overstimulated.” And expanded on to report, “And they mentioned it, but I didn't see it at the time. I just thought maybe, okay, I'm just a little overwhelmed at work, but it's gotten to a point where that is my steady state, or it had been my steady state. So, I would say any time after six months is when my family noticed it, but I didn't notice it almost until the first year.

P2 stated

I know when I first started at one point, I was feeling a bit overwhelmed with getting everything started with initial assessments and things like that. And I believe I asked for them just to hold off for a little bit before giving me another client.

P3 stated

In my experience, at least, it has been pretty common to be or to work in spaces where you're having to find your own way a lot to complete your job. So, it can be pretty stressful. The level of stress heavily escalates as a BCBA. Stressful to the point of feeling like you don't have any energy. You don't want to do anything.

So, I would say that stress is definitely elevated. I've cried. I've experienced a lot of emotional turmoil as a BCBA.

P4 shared

But there are plenty of times where I've had to take work home, I guess, quote-unquote, take work home, I should say, where I'm answering parents in the evening hours, where I need to put out a fire or talk to a staff member or figure something out well beyond outside of the office hours, the center hours. So, I think that can be challenging, especially when you're approaching certain deadlines and all of that.

P5 stated,

And I think it's just the amount of things that are put on me as a BCBA, like the amount of plates that I have to juggle is astounding. And I think it's just unrealistic to expect one person to be able to handle all the things that are expected of me at this point in my current role. So, I'm not sure that anything really exacerbated it. So, then it's that pressure where I have, I mean, a mental breakdown, at least like once a week for a long period of time, because it's just overwhelming in so many different ways. And I think sometimes too, when you go, when I go through these like really rough patches in the job, it's hard to even like get out of bed to go.

P6 shared

And so, then when you have all of that back-end stuff of being the director or being at the BCBA under the director, even there's a lot of paperwork that goes

with that. There's a lot of back-end things and there's a lot of staffing things that you have to do. And so, keeping track of all of that and making sure everyone was safe and taking care of the kids, too much got piled on very quickly.

P7 reported, "Okay. So, yes, like in the clinical environment, sometimes I would be overly tired because I was staying up very late to get things done that I couldn't do during the day. P8 stated, "I feel that work demands that are placed on me is very stressful, especially with the job that I do.

P9 explained,

Oh, I don't think it was anything I hadn't experienced before because I've always juggled grad school with working and just life in general. Um, so the stress and the pressure of getting, you know, FBAs done or reports or making sure I got out to enough kids. Um, I feel like I was used to that cause I was already doing all that in my other positions.

P10 response was different, stating

Like, I just feel like anxiety and stress isn't common here because I see my other, you know, BCBA coworkers, and they're doing great as well, you know, they have great fulfillment, they have a lot of joy in what they do, versus in the prior company, my clinical manager and I, which we were the only two BCBA's, we just really hated our jobs, basically.

All around, stress was present in all the BCBA that were interviewed, whether it was current stress that they were trying to manage, or in a previous setting in their role as the BCBA. This leads to the next theme: workload.

Workload/Time Management

No specific subthemes or categories were noted and there were no discrepant experiences. Each participant shared their views of workload and time management when it comes to their role as BCBA. P1, P4, P5, P6, P7, and P8 all shared similar experiences related to workload and time management. P1 shared, "I feel as if I am able to meet the demands of work that are placed on me, but within the time constraints that I'm given, I feel like it's a bit unrealistic." P4 states

So, I think the quality of my work, whatever it is, is strong. And I think that's also part of kind of going back to that first question of not feeling like there's enough time in the day or feeling like we don't. I think that balance can be challenging at times because something that on paper seems like it shouldn't take as long ends up taking a lot longer because I like to do it and do it well and make sure it's effective.

P5 reported

And I think it's just the amount of things that are put on me as a BCBA, like the amount of plates that I have to juggle is astounding. And I think it's just unrealistic to expect one person to be able to handle all the things that are expected of me at this point in my current role.

P6 stated "If I had a really packed day yesterday, maybe today is a little less packed. So, I have time for some of that backend stuff where, at the center, there was really none of that time. And so, it got overwhelming quickly, but I did learn a lot about coping skills for myself and a lot about managing my anxiety.

P7 shared

My only problem in the clinical environment was sometimes I did feel like it because, especially because I did outreach, and scheduling was sometimes tricky. I didn't get to see families as much as I wanted to make me feel like I was really making a difference.

P8 stated, "So I feel like the demand is very high. It's very stressful. And it gives me really, really bad anxiety because I don't like taking stuff home, and I won't be able to spend time with my family like I need to because of being stressed, being overwhelmed, and things like that."

P2 and P9 reported that having time management skills assists them in being able to manage work demands and getting things done in a timely manner, with P2 stating,

Yeah, I think I'm able to do so by using time management skills. I'm able to kind of prioritize when things need to be done at certain times. And like I said, also support from my supervisors." and P9 reported, "I have really good time management skills. I feel like that comes into play quite a bit, and the people who are most successful are able to do that."

P3 and P10 showed that depending on the environment in which you work, workload and time management abilities are factors with P3 reporting.

I would say, and I work mostly in the school settings currently, in the school setting, it's much easier, I would say, than being in a clinic or home setting, just because the amount of paperwork is very different. It's a lot more removed when you don't have to bill insurance, which you don't have to do in a school setting.

P10 said

I believe I have a good ability to finish and work on anything that is given to me, especially at the current company I'm at. Prior to this, it was very difficult at a different company. I had a hard time, I guess, a hard time kind of keeping up with the work versus now.

In summary, workload and time management are issues that all BCBA deal with on a daily basis. Their responses show a variation of the emotional toll it can take, from feeling overwhelmed to differences in setting to being good at managing job demands overall. This theme highlighted how many factors can affect BCBA jobs overall. This then leads to the next theme: anxiety.

Anxiety

No specific subthemes or categories were noted. Out of 10 participants, only 2 (P4 and P9) do not directly indicate they have experienced anxiety symptoms. P3 and P7 do not use the word “anxiety” but indicate increased emotional responses to their job, with P3 stating, “I have experienced emotions that have a very intense magnitude in comparison to work that I've done before being a BCBA.” P7 stating

And then emotional, yes, because you're putting all your energy, effort, and emotion into these kids, and you love them. And then, if things are hard at work with them or aren't going well, that can affect your whole day.

P1 reported, “I have been diagnosed with depression and anxiety because of just the sheer amount of just workload, but I have also noticed that my reaction to my child and my partner have been elevated.” P2 reported, “Maybe a little bit of anxiety about the

situation, just because I said like I said, concerns about everyone's safety and things like that." P5 shared

Like it's just, cause you're just like, oh, what is this day going bring today? Like, who knows? So, I feel like, I don't know that, like, I think physically I can feel my anxiety. Like for me, I know I'm getting anxious if my heart starts racing or my chest gets really tight. But then also sometimes too, if it's been particularly bad, I think you could definitely tell signs of depression.

P6 stated, "When I first became the director of the program that I worked at the center, my anxiety was out of control. I would throw up daily, sometimes multiple times a day. I was like in my office just puking all day." P8 reported, "And it really caused me to get a lot of anxiety because I don't like being too much overwhelmed because it makes me feel like I'm doing something wrong when I have so many things that I have to do." Lastly, P10 said, "And as I shared with you before, I do have GAD. However, I felt like my anxiety during that time was heightened. It was very bad. I had to get on medication due to my work environment prior." Despite this level of anxiety symptoms, the next theme was present: job satisfaction.

Job Satisfaction

No specific subthemes or categories were noted and there were no discrepant experiences. All participants indicated that despite the difficulties they experience as a BCBA, they find fulfillment in their job. P4 stated

I would say there's definitely a lot of emotions that come with it. Like I mentioned, anxiety and things like that, but I would say the joy that you feel after

we have made progress outweighs that. So, I do think there's like a mix of emotions that are going to occur throughout your career if you go this route.

This quote summarized how all 10 participants felt about the path they had chosen as BCBAs.

Summary

Chapter 4 highlighted the settings, participant demographics, data analysis, and data collection process for this research study. This chapter also presents the findings of qualitative phenomenological data from 10 interviews with current BCBAs who work with those diagnosed with autism. The analysis presented several shared themes that supported the conclusion for analysis and provided a deeper comprehension of the lived experiences of BCBAs. The themes generated from the analysis were work-life balance, stress, workload/time management, anxiety, and job satisfaction.

Chapter 5 will discuss these findings concerning the research question to connect the findings to the existing literature and the conceptual framework underpinning this study. The study's limitations and implications for future practitioners will also be outlined. Recommendations will be provided for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this phenomenological study was to explore the perceptions of anxiety symptoms experienced by BCBA professionals who work with individuals on the autism spectrum. I aimed to understand better this issue, which was previously examined but only focused on burnout. I used a phenomenological qualitative design and semi-structured interview questions. It consisted of purposefully selected participants who were certified as BCBAs and worked with those with ASD. Key findings from the study's data indicate support for previous studies that identified stressors like a heavy workload, intense time pressures, occupational risks, decision-making, and lack of support can contribute to the development of anxiety symptoms (see Hu et al., 2022). The data showed the first-hand experiences and perceptions of BCBA who work with those on the autism spectrum. The themes generated from semi-structured interviews included work-life balance, stress, workload/time management, job satisfaction, and anxiety. In Chapter 5, I discuss the study's interpretations of the data, limitations, recommendations for future research, implications, and summary.

Interpretations of the Findings

In Chapter 2, I included the theories that provided the conceptual framework for this study. The review established burnout symptoms in BCBAs and the heightened mental health toll they face while trying to meet clinical expectations. I explored anxiety symptoms of BCBAs who directly work with those on the autism spectrum and the possible impact if left unaddressed. According to Mellifont (2019), mental health issues

can negatively impact the effectiveness of interventions, work outcomes, treatment expenses, work attendance, resulting in feelings of overreaching, perfectionism, and overthinking. Additionally, anxious people might have a challenging time saying “no” leading them to take on multiple projects and working longer hours. Furthermore, pressures to be seen as perfect, reluctant to start tasks in attempts to reduce the chances of failing, and the view of having to meet the high expectancies from others. The anxiety symptoms expressed by BCBAAs reveal a gap in the literature.

The current literature showed that two out of every three BCBAAs report moderate to high levels of burnout and low job satisfaction, with several factors contributing to this, including unrealistic expectations and demands, emotional exhaustion, challenging behaviors, and the lack of administrative support (Fiebig et al., 2020; Kranak et al., 2022; Plantiveau et al., 2018). Specifically, 26% stated high emotional exhaustion, 29% reported elevated levels of depersonalization, and 50% cited a lack of accomplishment. The main sign of burnout is exhaustion, which can lead to various emotional or mental health concerns (Fiebig et al., 2020; Kranak et al., 2022; Plantiveau et al., 2018).

Slowiak and DeLongchamp (2021) found that BCBAAs who face a heavy workload and lack job-supportive resources, including training, feedback, and supervisors' support, are prone to physical and mental exhaustion, with about 72% reporting moderate- to- high burnout levels. Dounavi et al. (2019) surveyed 92 international behavior analysts and found that 37% experienced emotional exhaustion and burnout, with excessive work demands associated with burnout. Zhang, Ye, et al. (2020) discussed the use of Demand-Resources Model that showed that stress, due to excessive

job demands and limited job resources can result in burnout, leading to mental health problems. According to this stress process, anxiety symptoms can be one of the mental health problems occurring in response to burnout. A total of 514 out of 615 intensive care unit physicians and nurses completed self-administered 4-point Likert scales. Results showed that 56.03% of participants experienced burnout, and 48.25% participants developed anxiety symptoms. Using the Likert questionnaire showed limitations for the study including it could be influenced by social desirability bias and anxiety may predispose an individual's burnout. Due to these limitations, semi-structured interviews can produce more in-depth responses without the concern for biases.

My findings suggested that BCBA's continue to experience burnout symptoms, which has led to mental health symptoms of anxiety. P1 reported, "I have been diagnosed with depression and anxiety because of just the sheer amount of workload, but I have also noticed that my reaction to my child and my partner has been elevated." P5 shared,

So, I feel like, I don't know that, like, I think physically I can feel my anxiety.

Like for me, I know I'm getting anxious if my heart starts racing or my chest gets really tight. But then also sometimes too, if it's been particularly bad, I think you could definitely tell signs of depression.

P6 stated,

When I first became the director of the program that I worked at the center, my anxiety was out of control. I would throw up daily, sometimes multiple times a day. I was like in my office just puking all day.

These findings confirm and expand previous research due to the similarities with burnout symptoms but with additional data regarding perceived anxiety symptoms. My findings expand current research in that when asked additional questions regarding mental health, BCBA's identified symptoms of constant state of arousal, intense emotional responses, anxiety, being overwhelmed, anxious, stomachache, racing heart, tight chest, sleep disturbance, low energy, anger, and frustration. These symptoms link to generalized anxiety disorder in the DSM-5 (American Psychiatric Association, 2013); specifically, section A states:

The anxiety and worry are associated with three or more of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months).

1. Restlessness or feeling keyed up or on edge
2. Being easily fatigued
3. Difficulty concentrating or mind going blank
4. Irritability
5. Muscle tension
6. Sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep)(pp.190-191)

My research has expanded upon the previous literature to get more detailed data regarding the thoughts and feelings of BCBA's.

I applied the cognitive appraisal theory was applied to my study. It related to how BCBA's interpreted the demands of their job, their ability to cope, and how those

appraisals, in turn, led to the experience of stress and anxiety. According to cognitive appraisal theory, when an individual perceives a discrepancy between the demands of their environment and their ability to cope with those demands, stress, and anxiety manifest as a result (Ali, 2016). Acquiring knowledge surrounding BCBA's cognitive appraisals of their working experiences about job demands could help illuminate the potential antecedents between the job demands and anxiety symptoms. Multiple participants indicated cognitive appraisal. P3 stated

But personally, I think that when I have, when I have decent support around me, I think that I tend to handle it well. When I have the necessary tools available, I tend to handle things well. I think that it absolutely can get frustrating when you are working in spaces that can't provide you with the tools that you need to do your job the way you're supposed to be able to do your job.

P4 stated, "I handle it well. I've worked with people that have struggled before and people that feel underprepared, weren't maybe trained as effectively as necessary, not necessarily in this job." Concerning resources in the work environment, resources are not one size fits all due to autism being a spectrum disorder that requires specialized individual care (Burke & Taylor, 2023). Without the materials needed, BCBA's are unable to do their job correctly and effectively. P1 stated regarding resources, "So I always give my feedback, or I always give my input. I would say maybe 50% of the time or less; my feedback is actually implemented." with her later indicating being diagnosed with anxiety due to job. The use of this theory showed that the demand placed on BCBA is resulting in increased anxiety symptoms due to lack of training, not having the needed

resources, and failure to implement provided feedback. Despite the current data, there were limitations to this study.

Limitations

In Chapter 1, I discussed a few limitations of the current study, including lack of participation, interviewing only BCBAs, a lack of generalization for those who work with this population, gender requirements, and culture. These limitations are held throughout the study in numerous ways. Recruiting BCBAs was an arduous process as I got a few responses through social media and then relied on word of mouth for the majority after. Additionally, cultural or racial factors could be collected due to no data currently being collected surrounding those areas, as varying cultural views could impact treatment procedures.

A lack of generalization was expected. I only had two males and eight females for the study, which is congruent with the Behavior Analyst Certification Board (2023) data, that is, 88.63% of BCBAs are female, and only 11.10% are male. Despite them being BCBAs, it could be valuable to examine various perspectives that each gender employs within their roles.

Once data collection was completed, other limitations were noticed. These additional limitations included not indicating if the BCBAs worked in a school, center, or outreach position, as each can have its strengths and weaknesses. Those working within the school-based system do not have as much administrative work since they do not directly bill insurance companies as center-based or outreach providers. Additionally,

outreach providers typically have fewer resources provided to them since they are on the road driving to client houses and have no place to store materials.

Also, how long a person has been a BCBA can factor into how well they can manage the demands placed on them. The age of the population they work with could also be a factor. BCBA's who work with those who exhibit high rates of physical aggression or property destruction may have different experiences if their clients are younger than a BCBA who works with adolescents or adults. Additionally, funding sources can also be reviewed. Each insurance company allows a certain number of hours to be billed for a client based on need. The amount of time a BCBA can dedicate to providing services, creating materials, and providing parent training is important. If a client does not receive adequate attention and support, it can negatively impact their progress. Using the limitations of this study as a foundational reference, recommendations for future research are discussed next.

Recommendations

There are several recommendations for future research that stem from the limitations and results of this study. The first recommendation is to provide incentives to BCBA's to participate in the study. I did not provide an incentive which may have made it more difficult for BCBA's to want to take time out of their day. Secondly, lack of generalization can be improved by ensuring a specific ratio of women to men by selecting participants not just accepting anyone who is interested.

Thirdly, pick a site where the BCBA works. This means all participating BCBA's need to be working center-based, outreach, or in a school-based setting. This allows for a

more in-depth comparison of how BCBA's are doing because they all have the same requirements. Additionally, depending on the location, asking additional questions regarding supervisors or upper management involvement can be beneficial. Having support from upper management can impact your success due to their ability to provide resources, and guidance that can either help or provide additional obstacles or challenges.

Fourthly, more specific demographics, such as details regarding the traits of study participants, enable researchers to gain a deeper understanding of the sample population. Increasing demographic information allows for a clearer understanding of the population being studied for more accurate data analysis and interpretation of results. It also allows for additional information to highlight areas that lack access to BCBA's (Yingling et al., 2020). Additionally, it can allow for identifying specific trends and patterns within this subgroup (Call et al., 2022). By using a representative sample, the findings can be more easily generalized to larger populations, enhancing the study's applicability, and cultivating a greater understanding of the role of BCBA's. Lastly, funding sources can be discussed when discussing current caseload. BCBA's know how many billable hours are allocated per client. They can then discuss if they feel they have enough hours to get parent training, create materials, and provide direct care to the point of whether they think progress is being made or not.

This study was completed using semi-structured interviews. This allowed for in-depth exploration of the lived experiences and perceptions of BCBA's. The main advantage of this method is the ability to promote reciprocity between the interviewer and the interviewee (Kallio et al., 2016). Due to this interview style and its strength in

gathering rich data, it is suggested that this method be continued. Despite currently being licensed as a BCBA, semi-structured interview questions were approved by specialists in the field to ensure that the approach was coming from a researcher's perspective rather than a BCBA lens.

Implications

The results of this study could help create positive social change organizationally and individually. Working as a BCBA with individuals who have autism while experiencing mental health symptoms could impede on the already slow process of learning new skills for this vulnerable population. Per the BCBA code of ethics, Section 1, Responsibility as a Professional, subsection 1.10 Awareness of Personal Biases and Challenges states, "Behavior analysts maintain awareness that their personal biases or challenges (e.g., mental or physical health conditions; legal, financial, marital/relationship challenges) may interfere with the effectiveness of their professional work. Behavior analysts take appropriate steps to resolve interference, ensure that their professional work is not compromised, and document all actions taken in this circumstance and the eventual outcomes" (BACB, 2020). This means that it is important that BCBAs actively identify and address the potential negative impact of their mental health on their professional practice. When not addressed it can influence their decision making, client interaction, client progress, and overall effectiveness in their role. By shedding light on the mental health of BCBAs, this allows the opportunity for them to reflect more intensively on their emotional well-being to ensure they are not only taking care of themselves but to provide the best support for their clients.

As with workers worldwide, it is imperative to possess a thorough comprehension of the potential mental health difficulties that might arise in the context of ABA providers. Recognizing and resolving these problems can reduce attrition and raise awareness of how addressing mental health issues can enhance efficiency, establish significant relationships, and develop a positive outlook. Empirical knowledge derived from individuals who directly experience a phenomenon could be instrumental in beginning the process of positive social change, but that is only the first step needed for change to occur truly. The current study provides some likely helpful data in this area.

Methodological, theoretical, and empirical implications pertain to the effect or consequences that research could have on methods used to conduct research, observable data, or evidence gathered on the topic (Ruslin et al., 2022). Methodologically, it would be beneficial if semi-structured interviews were used to obtain the most in-depth data. Theoretically, this study showed that BCBAAs exhibit more than just burnout symptoms, and research should continue. Empirically, data should be used to assess the mental health of BCBAAs and the need for better support regarding mental health implications.

Summary

It can be challenging to study anxiety or any other emotions from a behavior-analytic perspective because it may seem like a real, observable phenomenon, but is a mere concept or category. Categories cannot be directly observed, so behavior analysts do not consider them as something to be modified (Friman et al., 1998a). Behavior analysts avoid viewing anxiety (or any other emotion) as a direct cause of behavior. Instead, consider anxiety as a type of behavior learned through interaction within the

environment. This can lead to BCBA's inability to identify their own physiological and psychological symptoms, which can then negatively impact the population that they work with.

According to the *Morbidity and Mortality Weekly Report* by the Centers for Disease Control and Prevention (CDC), 2.8% of eight-year-old children have a diagnosis of autism spectrum disorder (ASD) (About Autism Spectrum Disorder, 2024). Due to this high level of those diagnosed with Autism, the mental health of BCBA's who work with them directly must continue to be researched and addressed. Those diagnosed with autism have symptoms manifesting in early developmental periods and cause clinically significant impairment in social, occupational, or other critical areas of current functioning. Due to the complexity of this diagnosis, those who work with this population must have their mental health evaluated continuously due to the challenges in their respective position. The results of this study should be seen as a catalyst for further exploration into BCBA's mental health to ensure that they are afforded the same dignity and consideration as any other profession.

References

- About autism spectrum Disorder. (2024, November 25). Autism Spectrum Disorder (ASD). https://www.cdc.gov/autism/about/?CDC_AAref_Val=https://www.cdc.gov/ncbddd/autism/facts.html
- Ali, A. (2016). Reflection on Richard Lazarus' emotion and adaptation. *British Journal of Psychiatry*, 209(5), 399-399. <https://doi.org/10.1192/bjp.bp.115.178285>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596i>
- Amin, M. E. K., Nørgaard, L. S., Cavaco, A. M., Witry, M. J., Hillman, L., Cernasev, A., & Desselle, S. P. (2020). Establishing trustworthiness and authenticity in qualitative pharmacy research. *Research in Social & Administrative Pharmacy*, 16(10), 1472–1482. <https://doi.org/10.1016/j.sapharm.2020.02.005>
- Amstadter, A. B. (2008). Emotion regulation and anxiety disorders. *Journal of Anxiety Disorders*, 22(2), 211. <https://doi.org/10.1016/j.janxdis.2007.02.004>
- Anxiety and stress in the workplace | Anxiety and Depression Association of America, ADAA. (2022). <https://adaa.org/managing-stress-anxiety-in-workplace/anxiety-disorders-in-workplace>
- Autism and Developmental Disabilities Monitoring (ADDM) network sites. (2024, May 16). Autism Spectrum Disorder (ASD). <https://www.cdc.gov/autism/addm-network/sites.html>
- Behavior Analyst Certification Board. (2020). *Ethics code for behavior analysts*. <https://bacb.com/wp-content/ethics-code-for-behavior-analysts/>

Behavior Analyst Certification Board. (2023). *BCBA certificate data*.

<https://www.bacb.com/bacb-certificant-data/>

Behavior Analyst Certification Board. (2024). *Board certified behavior analyst*

handbook. [https://www.bacb.com/wp-](https://www.bacb.com/wp-content/uploads/2022/01/BCBAHandbook_240925-a.pdf)

[content/uploads/2022/01/BCBAHandbook_240925-a.pdf](https://www.bacb.com/wp-content/uploads/2022/01/BCBAHandbook_240925-a.pdf)

Blainey, S., Rumball, F., Mercer, L., Evans, L., & Beck, A. (2017). An evaluation of the effectiveness of psychological therapy in reducing general psychological distress for adults with autism spectrum conditions and comorbid mental health problems.

Clinical Psychology & Psychotherapy, 24(6). <https://doi.org/10.1002/cpp.2108>

Bottini, S., Wiseman, K., & Gillis, J. M. (2020). Burnout in providers serving individuals with ASD: The impact of the workplace. *Research in Developmental Disabilities*,

100, 103616. <https://doi.org/10.1016/j.ridd.2020.103616>

Brahmbhatt, A., Richardson, L., & Prajapati, S. (2021). Identifying and Managing

Anxiety Disorders in Primary Care. *Journal for Nurse Practitioners*, 17(1), 18–

25. <https://doi.org/10.1016/j.nurpra.2020.10.019>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative*

Research in Psychology, 3(2), 77-101.

<https://doi.org/10.1191/1478088706qp063oa>

Burke, M. M., & Taylor, J. L. (2023). To better meet the needs of autistic people, we

need to rethink how we measure services. *Autism: The International Journal of*

Research and Practice, 27(4), 873. <https://doi.org/10.1177/13623613231164495>

Burkholder, G. J., Cox, K. A., Crawford, L. M., & Hitchcock, J. H. (2019). *Research*

design and methods: An applied guide for the scholar-practitioner. Sage

Publications.

Call, C. C., Eckstrand, K. L., Kasparek, S. W., Boness, C. L., Blatt, L., Jamal-Orozco, N.,

Novacek, D. M., & Foti, D. (2022). An Ethics and Social Justice Approach to Collecting and Using Demographic Data for Psychological Researchers.

Perspectives on Psychological Science : A Journal of the Association for Psychological Science, 18(5), 979. <https://doi.org/10.1177/17456916221137350>

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters,

D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652–661.

<https://doi.org/10.1177/1744987120927206>

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, 41(5), 545–

547. <https://doi.org/10.1188/14.ONF.545-547>

CDC Newsroom. (2016, January 1). CDC.

<https://www.cdc.gov/media/releases/2023/p0323-autism.html>

Chand, S. P., & Marwaha, R. (2023, April 24). *Anxiety*. StatPearls - NCBI Bookshelf.

<https://www.ncbi.nlm.nih.gov/books/NBK470361/>

Coleman, A. E., & Snarey, J. (2011). James-Lange theory of emotion. In S. Goldstein & J. A. Naglieri (Eds.) *Encyclopedia of Child Behavior and Development* (pp. 844–

846). Springer. https://doi.org/10.1007/978-0-387-79061-9_3146

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design* (4th ed.).

SAGE Publications.

- Creswell, J. W., & Guetterman, T. C. (2019). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (6th ed.). Pearson.
- DeJonckheere, M., & Vaughn, L. M. (2019). Semi-structured interviewing in primary care research: A balance of relationship and rigor. *Family Medicine and Community Health*, 7(2). <https://doi.org/10.1136/fmch-2018-000057>
- D'Hondt, F., Lassonde, M., Collignon, O., Dubarry, A. S., Robert, M., Rigoulot, S., Honoré, J., Lepore, F., & Sequeira, H. (2010). Early brain-body impact of emotional arousal. *Frontiers in Human Neuroscience*, 4, 33. <https://doi.org/10.3389/fnhum.2010.00033>
- Dounavi, K., Fennell, B., & Early, E. (2019). Supervision for certification in the field of applied behavior analysis: Characteristics and relationship with job satisfaction, burnout, work demands, and support. *International Journal of Environmental Research and Public Health*, 16(12), 2098. <https://doi.org/10.3390/ijerph16122098>
- Epel, E. S., Crosswell, A. D., Mayer, S. E., Prather, A. A., Slavich, G. M., Puterman, E., & Mendes, W. B. (2018). More than a feeling: A unified view of stress measurement for population science. *Frontiers in Neuroendocrinology*, 49, 146. <https://doi.org/10.1016/j.yfrne.2018.03.001>
- Etyemez, S., Saleh, A., Hamilton, J., Koshy, A. J., Abraham, J. E., & Selek, S. (2020). Higher prevalence of mood disorders in admitted patients with autism. *Neurology*

Psychiatry and Brain Research, 37, 87–90.

<https://doi.org/10.1016/j.npbr.2020.06.007>

Fiebig, J. H., Gould, E. R., Ming, S., & Watson, R. A. (2020). An invitation to act on the value of Self-Care: being a whole person in all that you do. *Behavior Analysis in Practice*, 13(3), 559–567. <https://doi.org/10.1007/s40617-020-00442-x>

Friman, P. C., Hayes, S. C., & Wilson, K. G. (1998). Why Behavior Analyst should study emotion: The example of Anxiety. *Journal of Applied Behavior Analysis*, 31(1), 137–156. <https://doi.org/10.1901/jaba.1998.31-137>

Hossain, M. M., Khan, N., Sultana, A., Ma, P., McKyer, E. L. J., Ahmed, H. U., & Purohit, N. (2020). Prevalence of comorbid psychiatric disorders among people with autism spectrum disorder: An umbrella review of systematic reviews and meta-analyses. *Psychiatry Research*, 287, 112922.

<https://doi.org/10.1016/j.psychres.2020.112922>

Hu, K., Li, S., Jiang, H., & Yang, J. (2022). The stress model of neuroticism and anxiety symptoms in fishermen. *International Maritime Health*, 73(4), 203–212.

<https://doi.org/10.5603/imh.2022.0035>

Ivandic, I., Kamenov, K., Rojas, D., Cerón, G., Nowak, D., & Sabariego, C. (2017). Determinants of Work Performance in Workers with Depression and Anxiety: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, 14(5). <https://doi.org/10.3390/ijerph14050466>

- Ivanović, I. (2021). Psychiatric Comorbidities in Children With ASD: Autism Centre Experience. *Frontiers in Psychiatry, 12*, 673169.
<https://doi.org/10.3389/fpsy.2021.673169>
- Janis, I. (2022). Strategies for establishing dependability between two qualitative intrinsic case studies: A reflexive thematic analysis. *Field Methods, 34*(3), 240–255.
<https://doi.org/10.1177/1525822x211069636>
- Kallio, H., Pietilä, A., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing, 72*(12), 2954–2965.
<https://doi.org/10.1111/jan.13031>
- Kardas, J. S. (2023). Job crafting and Work-Life balance in a mature organization. *Sustainability, 15*(22), 16089. <https://doi.org/10.3390/su152216089>
- Kasper, S. (2006). Anxiety disorders: under-diagnosed and insufficiently treated. *International Journal of Psychiatry in Clinical Practice, 10*(sup1), 3–9.
<https://doi.org/10.1080/13651500600552297>
- Kavelaars, R., Ward, H. E., Mackie, D. S., Modi, K., & Mohandas, A. (2023). The burden of anxiety among a nationally representative U.S. adult population. *Journal of Affective Disorders, 336*, 81–91.
<https://doi.org/10.1016/j.jad.2023.04.069>
- Kohane, I. S., McMurry, A., Weber, G., MacFadden, D., Rappaport, L., Kunkel, L., Bickel, J., Wattanasin, N., Spence, S., Murphy, S., & Churchill, S. (2012). The Co-Morbidity Burden of Children and Young Adults with Autism Spectrum

Disorders. *PLoS ONE*, 7(4), e33224.

<https://doi.org/10.1371/journal.pone.0033224>

Koutsimani, P., Montgomery, A., & Georganta, K. (2019). The Relationship Between Burnout, Depression, and Anxiety: A Systematic Review and Meta-Analysis. *Frontiers in Psychology*, 10(284). <https://doi.org/10.3389/fpsyg.2019.00284>

Kranak, M. P. (2022). Put out the fire before it spreads: On equipping behavior analysts with strategies to mitigate burnout. *Behavior Analysis*, 22(4), 404–406.

<https://doi.org/10.1037/bar0000255>

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. Folkman, Susan. Springer Pub. Co. ISBN 0826141900. OCLC 10754235

Leung L. (2015). Validity, reliability, and generalizability in qualitative research. *Journal of Family Medicine and Primary Care*, 4(3), 324–327.

<https://doi.org/10.4103/2249-4863.161306>

Litwic-Kaminska K. (2020). Types of cognitive appraisal and undertaken coping strategies during sports competitions. *International Journal of Environmental Research and Public Health*, 17(18), 6522.

<https://doi.org/10.3390/ijerph17186522>

Liu, J., Shen, K., & Li, H. (2019). How state anxiety and attentional bias interact with each other: The moderating effect of cognitive appraisal. *Attention, Perception, & Psychophysics*, 81(3), 694–706. <https://doi.org/10.3758/s13414-018-01650-y>

Ma, J., Peng, Y., & Wu, B. (2021). Challenging or hindering? The roles of goal orientation and cognitive appraisal in stressor-performance relationships. *Journal*

- of *Organizational Behavior*, 42(3), 388–406. <https://doi.org/10.1002/job.2503>
- Mellifont, D. (2019). Neuro magnifico! An exploratory study critically reviewing news text reporting of anxiety-related work performance strengths, challenges and support measures. *Work*, 63(3), 435–446. <https://doi.org/10.3233/wor-192950>
- Molko, R. (2018). Improving retention in ABA services. *Forbes*.
<https://www.forbes.com/sites/forbesbooksauthors/2018/11/07/improving-retention-in-aba-services/?sh=78ca619f73b8>
- Munthe-Kaas, H., Nokleby, H., Lewin, S., & Glenton, C. (2020). The TRANSFER approach for assessing the transferability of systematic review findings. *BMC Medical Research Methodology*, 20(11), 1-22. <https://doi.org/10.1185/s12874-019-0834-5>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis. *International Journal of Qualitative Methods*, 16(1).
<https://doi.org/10.1177/1609406917733847>
- Pahng, P. H., & Kang, S. M. (2023). Voice vs. Silence: The role of cognitive appraisal of and emotional response to stressors. *Frontiers in Psychology*, 14, 1079244.
<https://doi.org/10.3389/fpsyg.2023.1079244>
- Park, H., Kim, J., Jo, S., Kim, H., Jo, Y., Kim, S., & Yoo, I. (2022). Measuring emotional variables in occupational performance: A scoping review. *Work*, 72(4), 1195–1203. <https://doi.org/10.3233/WOR-205162>
- Plantiveau, C., Dounavi, K., & Virués-Ortega, J. (2018). High levels of burnout among early-career board-certified behavior analysts with low collegial support in the

work environment. *European Journal of Behavior Analysis*, 19(2), 195–207.

<https://doi.org/10.1080/15021149.2018.1438339>

Pollack, M. S., Lloyd, B. P., Crowell, G. E., Santini, M. A., & Biggs, E. E. (2024).

Perspectives of Behavior Analysts and Mental Health Specialists on Collaborating to Support Students with Intensive Intervention Needs. *Behavioral Disorders*,

49(3), 131–148. <https://doi.org/10.1177/01987429231225623>

Ralston, A. W., & Brown, K. (2023). Registered Behavior Technicians' Training

Experiences for Severe Problem Behavior: A Survey. *Behavior Analysis in*

Practice, 16(4), 1175. <https://doi.org/10.1007/s40617-023-00809-w>

Ruslin, Mashuri, S., Abdul Rasak, M. S., Alhabsyi, F., & Syam, H. (2022). Semi-

structured Interview: A Methodological Reflection on the Development of a

Qualitative Research Instrument in Educational Studies. *Journal of Research &*

Method in Education (IOSR-JRME), 12(1), 22–29. [https://doi.org/10.9790/7388-](https://doi.org/10.9790/7388-1201052229)

[1201052229](https://doi.org/10.9790/7388-1201052229)

Saviola, F., Pappaianni, E., Monti, A., Grecucci, A., Jovicich, J., & De Pisapia, N.

(2020). Trait and state anxiety are mapped differently in the human brain.

Scientific Reports, 10(1), 1-11. <https://doi.org/10.1038/s41598-020-68008-z>

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research

projects. *Education for Information*, 22(2), 63-75.

<http://doi.org/10.3233/EFI2004-22201>

Slowiak, J. M., & DeLongchamp, A. C. (2021). Self-care strategies and job-crafting

practices among behavior analysts: Do they predict perceptions of work-life

- balance, work engagement, and burnout? *Behavior Analysis in Practice*, 15(2), 414–432. <https://doi.org/10.1007/s40617-021-00570-y>
- Slowiak, J. M., & Jay, G. M. (2023). Burnout among behavior analysts in times of crisis: The roles of work demands, professional social support, and psychological flexibility. *Research in Autism Spectrum Disorders*, 105, 102185–102185. <https://doi.org/10.1016/j.rasd.2023.102185>
- Tenny, S., Brannan, J., & Brannan, G. (2022, September 18). *Qualitative Study*. National Library of Medicine; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK470395/>
- Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work*, 11(1), 80-96. <https://doi.org/10.1177/1473325010368316>
- Wood, L. M., Sebar, B., & Vecchio, N. (2020). Application of rigor and credibility in qualitative document analysis: lessons learned from a case study. *The Qualitative Report*, 25(2), 456-470. <https://nsuworks.nova.edu/tqr/vol25/iss2/11>
- World Health Organization:(2023). *Anxiety disorders*. <https://www.who.int/news-room/fact-sheets/detail/anxiety-disorders>
- Yingling, M. E., Ruther, M. H., & Dubuque, E. M. (2022). Trends in geographic access to board-certified behavior analysts among children with Autism Spectrum Disorder, 2018–2021. *Journal of Autism and Developmental Disorders*, 52(12), 5483-5490. <https://doi.org/10.1007/s10803-021-05402-0>
- Zeldes, N. (2022). What causes Autism Spectrum Disorder, and why are more and more kids being diagnosed with it? | National Center for Health Research. National

Center for Health Research. <https://www.center4research.org/what-causes-autism-spectrum-disorder-and-why-are-more-and-more-kids-being-diagnosed-with-it/>

Zhang, H., Tang, L., Zhi-Hong, Y., Zou, P., Shao, J., Wu, M., Qi, Z., Qiao, G., & Mu, S. (2020). The role of social support and emotional exhaustion in the association between work-family conflict and anxiety symptoms among female medical staff: a moderated mediation model. *BMC Psychiatry*, 20(1).

<https://doi.org/10.1186/s12888-020-02673-2>

Zhang, H., Ye, Z., Tang, L., Zou, P., Du, C., Shao, J., Wang, X., Chen, D., Qiao, G., & Mu, S. Y. (2020). Anxiety symptoms and burnout among Chinese medical staff of intensive care unit: the moderating effect of social support. *BMC Psychiatry*, 20(1), 197. <https://doi.org/10.1186/s12888-020-02603-2>

Appendix A: Interview Questions

Questions for Interview with Board-Certified Behavior Analysts

Script Before asking questions: I appreciate the time you have taken to meet with me today. Your insight and perspective are highly valued. Please remember the upcoming questions about your board-certified behavioral analyst role. As a reminder, this interview is being audio recorded, and you can request it to be discontinued at any point for any reason.

1. How would you describe your ability to fulfill the work demands? (Follow Up - How do you feel you handle it?)
2. How is it determined how many clients you have assigned to you?
3. How would you describe the quality of your work?
4. Are there any daily challenges that you feel you encounter?
5. What is your perception of the resources provided to meet your job requirements?
6. How do you feel about the balance between your work and personal life?
7. Do you feel like your employer supports you in managing job demands?
8. Have your job demands caused physical or emotional reactions you hadn't experienced before? (If indicating this is occurring, ask – How long has this been going on, and what was occurring then?)
9. Have your job demands caused fulfillment, accomplishment, or even enjoyment? (If indicated this occurred, ask – what was going on that you felt that way, and how long did it last for?)

Appendix B: Recruitment Flyer

Interview Study Seeks Board-Certified Behavior Analysts!

If we want clinicians to provide superior care to patients, we need to provide superior care to clinicians.

There is a new study about the experiences of Board-Certified Behavior Analyst (BCBA) that could help the field of psychology better understand and help those who work with those on the Autism spectrum. For this study, you are invited to describe your experiences regarding your mental health and how work expectations may impact it.

About the study:

- One 5–40-minute Zoom interview that will be audio recorded (no videorecording)
- To protect your privacy, the published study will not share any names or details that identify you.

Volunteers must meet these requirements:

- 18 years or older
- Has never worked with the current researcher in any capacity.
- Have a master's degree in psychology, education, or applied behavior analysis.
- Credentialed as a Board-Certified Behavior Analyst

- Work with those on the Autism Spectrum

This interview is part of the doctoral study for Elyra Gonzalez, a Ph.D. student at Walden University. Interviews will take place based on the participants' and researchers' availability.

Please message [mailto:BCBA Research Study](mailto:BCBA_Research_Study@waldenu.edu) privately to let them know of your interest.