

## **ABSTRACT**

MITRAN, CARRIE LEIGH. A Paradigm Shift: Examining the Experiences, Challenges, Perceptions, and Recommendations of Licensed Counselors and Mental Health Providers Working with Neurodiverse Adults. (Under the direction of Dr. Stanley Baker).

The purpose of this qualitative case study was to explore the experiences, challenges, perceptions, and recommendations of licensed counselors and other licensed mental health providers who work with neurodiverse adults. Research findings indicate that relationships and social challenges are of significant concern for neurodiverse adults. Many never receive therapy due to the lack of trained professionals and limited training in professional counseling and other mental health support services specific to neurodiverse adult relationships that these professionals receive. Findings from an instrumental case study to investigate experiential data from licensed counselors and other licensed mental health providers is presented herein. Individual open-ended interviews were conducted to answer four research questions that pertained to experiences, challenges, perceptions, and recommendations of being a licensed counselor or other mental health provider trained to work with neurodivergent clients.

Neurodiversity, from my perspective as an educator, researcher, and practitioner, should be understood as a culture, without being categorized as disabled or having a disorder because the medical model has unraveled its futility and has exposed the hopelessness and inability of the affected individual to cope. A comprehensive literature review called for attention to unmet gaps pertaining to the needs of neurodiverse people and their urge to overcome relational barriers. Advances in research have highlighted the needs and challenges of neurodiverse people, warranting a call for novel technological interventions that include virtual reality and digital communication platforms, which can improve a person's ability to increase social emotional competence and enhance face-to-face social interactions. These tools facilitate social interactions

among those diagnosed with High Functioning Autism Spectrum Disorder. Indeed, their ability to consider others' perspectives increases the likelihood of relational success.

The instrumental case study addressed the relationship concerns of neurodiverse adults and indicated that counselors and educators have to build on existing knowledge, adapt, evolve within new cultural norms, change the script, show inquiry, shun labels, and flip the paradigm with techniques and theoretical frameworks to interact with diverse thinkers. The experiences, challenges, perceptions, and recommendations of five licensed counselors and licensed mental health providers in other fields who work with neurodiverse adults were analyzed in a thematic fashion along with a detailed content analysis from two educational curricula documents. A content analysis indicated that all of the participating mental health providers need training in supportive technologies to aid with communication, ability to help clients reduce anxiety, and understanding sensory sensitivities. The findings were connected to the theoretical framework based on Social Emotional Learning, Universal Design for Learning, Universal Design, and Social Learning theories and are followed by implications of the findings for practitioners, limitations, and recommendations for future research.

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A Paradigm Shift: Examining the Experiences, Challenges, Perceptions, and Recommendations  
of Licensed Counselors and Mental Health Providers Working with Neurodiverse Adults

by  
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A dissertation submitted to the Graduate Faculty of  
North Carolina State University  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

Educational Leadership, Policy, and Human Development

Raleigh, North Carolina  
2021

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## DEDICATION

I dedicate this dissertation to my ongoing support system, friends, parents, and my partner, Taras Mitran. By continuing to push me to challenge myself, expand my mindset, push boundaries and continuously be better, Taras has always been a source of support. My friends, for endless amounts of encouragement and acceptance over the years. My parents, Gary W. Conner, who taught me the meaning of loyalty, courage, and hard work, and Janet W. Conner, who instilled in me curiosity and persistence. To my forever coach, Vickie Yeingst, who told me I could do anything and believed in me before anyone else did, I wouldn't be here today without you.

## **BIOGRAPHY**

Carrie Leigh Mitran is a Licensed Professional Counselor (LCMHC), National Certified Counselor (NCC), and an honors PhD student in the Department of Educational Leadership, Policy, and Human Development program at North Carolina State University. Carrie holds a master's degree in Clinical Mental Health Counseling from NC State and a bachelor's degree in business from William Peace University. Her research interests lie in the areas of curriculum for neurodiverse learners, counselor training, neurodiverse couples counseling, neuropsychology, and family systems.

Carrie has over 14 years of work experience in the field of neurodiversity. Her love for serving neurodivergent individuals and couples stems from her dyslexia during her early years and experiences of being in a neurodivergent relationship. She is passionate about helping such individuals find their voice, understand systems, patterns, and discover their unspoken language. Her intellect and research have motivated to push her through difficult times. She is a lifelong learner and hopes to continue being a student for life. She is currently trained and certified in autism, emotional intelligence, mindfulness, yoga instruction, work, and team development for couples, in addition to various counseling modalities.

Carrie grew up in Cary, NC and currently lives in San Francisco, CA with her partner and two dogs. Being an avid traveler who visited 27 countries thus far, Carrie has imbibed an endless taste for various cultures, cycling, climbing mountains, and cultural experiences.

## ACKNOWLEDGMENTS

Working on my doctorate during a global pandemic was an unimaginable task, which became a reality only because of several wonderful individuals. First and foremost, I would like to thank my PhD advisor and committee chair, Dr. Stan Baker, with whom I undertook an amazing journey and who became the most influential individual in my life during the last 3 years. His patience, wisdom, humor, and care have served as a model for my desire and aspiration to be an educator and advocate. Dr. Baker allowed me to explore my ideas when necessary and guided me in times of need and I thank him for putting up with me.

I thank all my committee members, Dr. Helen Lupton-Smith, Dr. Cristina Braga, and Dr. Peter Hessling who have consistently modeled for me the professionalism and competence exhibited by excellent educators and researchers. From the start of my master's program at NCSU, Dr. Lupton-Smith has been an ongoing support. Her compassion and understanding have helped me weather many storms over the years. Her dedication and the safe space she created allowed me to be authentic and be a true self-advocate and mature as a counselor for which I am incredibly grateful.

Since the first class we had together in my master's program, Dr. Braga, has been a wonderful mentor and advocate for me. She provided outstanding leadership and guidance and puts her heart into her work, which is evident from her level of clinical knowledge that I immensely benefited from, for which I am truly appreciative. Cristina was the first professor who trusted me with large research projects and several opportunities on various projects since the start of my doctoral program, for which I am forever grateful. Being an exceptional educator and mentor, Dr. Hessling, provided me the much-needed flexibility to express my thoughts and ideas, from the beginning of my qualitative-one class. His style of challenging me and hearing my

perspective provided an exceptional environment for my learning style. The conversations that I had with Peter honed my critical thinking skills and advance my knowledge base while feeling safe.

I express my gratitude to Dr. Baker, Dr. Lupton-Smith, Dr. Braga, and Dr. Hessling, who supported me throughout my education, for helping me learn a great deal about myself, for making me a better scholar, and I trust I will continue to learn from and work with them for years to come. I will be forever grateful to all expert interviewees for my case study. Their participation and insight on this valuable topic has created a process in education and research that has just begun and so, their roles do not end with this acknowledgment.

I thank my niece, Alisa Garland Enfinger, for teaching me how to be more adaptable in life. She taught me, from the day I first held her at the hospital on June 20, 2001, how to love self and others more. She is pure joy. And to Taras, my best friend and life partner. Taras Mitran brings excitement to my life and with him, I will always believe, anything is possible together. I shudder to think of my life without Taras as my advocate and I thank him for continuing to choose me every day.

Dissertations require endless amounts of energy and hard work, and my pursuit of a PhD has not been easy. However, my friends and family helped me with a million things along the way. Thank you so very much.



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## CHAPTER 1. INTRODUCTION

Neurodivergent people, to some extent, are viewed differently or deemed ‘outsiders’ in our society (Kirby, 2020). As researcher and entrepreneur, Amanda Kirby (2020) explains in her recent work, thinking differently from the norm is often considered key to the development of novel ideas or creating paradigm shifts in science, technology, and the arts. History has revealed time and again that novel ideas often spring forth when the world is viewed from different perspectives. Cognitive diversity in thoughts, views, communication, action, and perception of the world encompass neurodiversity. By rough estimates, Kirby (2020) states, around one in six people are neurodivergent and this can be gauged from their representation within one and two standard deviations from the mean of a normal distribution of the general population who communicate, write, and design. Population studies have clearly shown that people do not come neatly packaged and labeled, contrary to contemporary notion (Kirby, 2020). In fact, neurodiversity encompasses the cognitive variability in all of us and about 15% of the human population have a range of neurodivergent traits that society views as different than people who are considered neurotypical (Kirby, 2021). Kirby (2021) further explains that it is blurry, without a dichotomous black and white line that defines one as being either neurodiverse or neurotypical.

The last two decades have witnessed a rapid boom in neurodiversity studies, a branch of sociology research, which argues that rather than trying to cure or treat the neurodivergent, society should accept, appreciate, and accommodate their needs (Ortega et al., 2011). Scientific claims in neuroscience have extended beyond the confines of laboratories, which have provided experimental evidence on brain research. In particular, cognitive neuroscience has amplified the focus on elucidating neurological distinctions between different kinds of people and the range of thought processes, behavior, and interactions with the world that they engage in (Ortega et al.,

2011). Discoveries in neurodiversity studies have contributed substantially to humanities and behavioral sciences, which have justified support for ongoing research and development. The concept of neurological vocabulary in relation to a person's identity has taken centerstage in research in humanities and the social sciences. Investigators, including practitioners and researchers like myself, have embarked on a journey to examine how the brain and its functionality directly impacts a person's identity and their ability to perceive as 'being wired differently' (Ortega et al., 2011).

The birth of the *neurodiverse movement* in the 1990s may be attributed to the concerted actions of groups of autistic persons (Griffin et al., 2019; Ortega, 2019). This movement celebrates neurological differences among individuals, viewing differences as an inseparable aspect of one's identity, inherently packaged with innate skills (Kapp et al., 2012). The neurodiverse movement has created an awareness of several neurological identities that people associate with today, such as autism, high-functioning autism spectrum disorder (HFASD), Asperger's, attention deficit disorder, dyslexia, bipolar disorder, and developmental dyspraxia (Fenton et al., 2007). Rather than viewing a neurological difference as a defect that requires a therapeutic fix, the neurodiverse movement challenges the medical model, which focuses on causation and cure (Kapp et al., 2012). Indeed, the medical model overlooks advantageous behaviors and emphasizes problem areas that are not considered normal or valued (Kapp et al., 2012). Through my own experience as a clinician and counselor, the medical model has exposed its irrelevance through a focus on the hopelessness and inability of the neurodivergent to cope unlike a strengths-based approach, which is based on positive psychology.

The term *neurodiversity*, originally coined by Judy Singer (1999), encompasses cognitive diversity in the way we think, see and perceive the world, communicate, and act, but it remains

controversial (Singer, 1999). Jaarsma et al. (2011) defined neurodiversity broadly as an approach that presents atypical neurology as a normal human difference. Examining deeper, neurodiversity encompasses a spectrum that describes two differing aspects; firstly, neurological differences are a natural variation and secondly, demanding acceptance and recognition by way of discussing rights and finding value (Jaarsma et al., 2011). The controversy over defining the term neurodiversity has extended its coverage leading to conflicts regarding standards for those considered neurodiverse and the terms of inclusion. For example, the expanse of autism spectrum ranges from low-functioning to high-functioning, but from a certain perspective, only the latter are considered to be within the neurodiverse or neurodivergent realm (Jaarsma et al., 2011).

As an educator, researcher, and practitioner, my view is that neurodiversity should be understood as a culture, without being categorized as disabled or having a disorder. From this perspective, the focus would be on how autistic individuals perceive and identify themselves, and in the process, enhance my understanding of their awareness, which will guide the direction of my dissertation. In my study, I have limited myself to 'neurodiversity' as it relates to autism and more specifically focus on individuals with HFASD, whose intelligence quotient is in the normal or above normal range. These individuals, I believe, are an underserved population within the realm of neurodiversity who remain inconspicuous because of their fear of being stigmatized. My experience has revealed that individuals with HFASD have pronounced skills to adapt and work hard, which masks their neurological differences. However, these very attributes and fears often disempower them emotionally, physically, and mentally.

Gaining insights into neurodivergent persons and their culture, mode of communication, perceived barriers to relationships, and their apprehensions towards discussions on the topic of



social norms is important, not only in the domain of education, relationships, and within the medical community but also to the counseling field. With this overarching objective, a critical analysis of two theories — Social Emotional Learning (SEL; Jones et al., 2017) and Universal Design for Learning (UDL; Moore, 2007) — are explored in my study because at the root of these two theories are fundamental principles for working with neurodivergent people. Since context is such an important factor when considering neurodivergent thinking, I have reviewed relevant literature in varying contexts that formed the groundwork for this study. Moreover, I analyzed and synthesized four empirical studies of experiences with communication, education, technology, and relationships from the perspective of the neurodivergent to help provide insights and context around neurodivergent culture for the benefit of the reader.

### **Neurodiversity and Unique Counseling Challenges**

Using a neurodiverse-informed approach while working with neurological differences is important for the protection of our clients and ourselves. As counselors, it is our ethical obligation to be informed and knowledgeable about the population(s) we serve. As a practicing clinician, very often, I see first-hand the psychological harm that comes from uninformed mental health professionals trying to support neurodiverse individuals. While a mental health provider often has all the right intentions to help their clients, applying traditional practice without an informed approach is a recipe for disaster, contributing to further destruction of neurodivergent partnerships and, worse, the mental wellbeing of the neurodivergent person.

For clarity, I provide an example of a traditional research-informed practice going astray while working with a neurodivergent population. When counseling a highly analytic population prone to hypervigilance and high levels of anxiety, the application of Cognitive Behavioral Therapy (CBT) can be traumatizing. Using CBT on a hypervigilant and highly anxious person

exacerbates the anxiety, which I have often observed, prompts spiraling cognitive looping that results in emotional meltdowns from lower executive function abilities. Most often, the problem starts when practitioners are unable to identify processing dilemmas, which from my clinical perspective, is the foundation for building communication channels with neurodiverse clients, and therefore is destructive to the therapeutic process from the start. Frequently, the person who has a lower processing speed tends to feel left behind and is unable to keep up in session, causing further inequality within the client-practitioner relationship. This sets the client up for a less than successful experience.

Using a neurodiverse-informed approach is key to helping and supporting neurodiverse persons and partnerships. In a study of neurodiverse couples conducted by Smith et al. (2020), most participants stated that the health professionals they encountered had a limited understanding of Asperger's and no experience working with neurodiverse couples. From the neurodiverse couple's perspective, the lack of training and education for health care professions was noted (Smith et al., 2020). To gain better insights and awareness about this population, it is suggested that neurodiverse partnerships be regarded as intercultural relationships. The goals of interventions should be to develop a baseline of understanding, discuss differences, bridge gaps, and dissolve barriers with a meta sociodrama approach (Smith et al., 2020). From my work in the field and studying related outcomes, there are five criteria that counselors can use to tailor their therapeutic planning while working with the neurodivergent population: (a) cognitive empathy, (b) perspective taking, (c) personal awareness, (d) paradigm shifting, and (e) intersubjectivity. In the therapeutic planning process, these criteria are used on a counselor-first basis, indicating that these criteria must be practiced and demonstrated first by the counselor in order to accurately assess the needs of the client. These five criteria set the foundation for more accurate assessment

by the counselor and likely increase cooperation from the client. Without both accuracy and cooperation derived from these criteria, any therapeutic intervention is likely to be unsuccessful. Above all, it is our duty to provide autonomy and respect for each client.

While my reasoning is based on my experience and observations in the field, there is a need to hear from other practitioners as well to better understand their experiences, challenges, perceptions, and recommendations so that we can explore common themes, analyze consistent themes, and draw meaning from the data to write a better narrative.

### **Social Connections and Relationships**

Both time and energy are needed to build social connections and relationships. In addition, understanding social competency and executive functioning skills such as giving attention to establishing contacts with a potential friend, learning more about a person, staying in touch with a friend, and initiating social experiences or executing a plan are important. These skills involve taking interest in others, considering their thoughts and feelings, and regulating their behaviors so that others deem oneself, friend- or partner-worthy. Adding considerable perspective-taking to the above-mentioned skills comprehensively describes an individual's social executive functioning. Weakness around central coherence is an attribute that is evident from the difficulties expressed by several of my neurodiverse clients. Consequently, the ability to plan subsequent steps, anticipate another person's actions, and offer an acceptable response by being conceptually aware are impacted because these individuals are unable or find it difficult to perceive and comprehend the context of the matter (Winner et al., 2014).

Establishing and maintaining a relationship is a hard-fought challenge among people with limited pragmatic social communication skills. While unfortunately, there is no simple formula to overcome this challenge, my experience working with neurodiverse couples for several years

has taught me that learning social thinking, adaptability, problem-solving, and self-regulatory skills are useful for helping couples overcome these barriers (Winner et al., 2014).

While social behaviors do not necessarily require social interactions, it is known that executive functioning skills regulate face-to-face social interactions (Winner et al., 2014). It can therefore be deduced that limited executive functioning skills, typical of many neurodiverse people, may be overcome using technology that provides social interactions, but devoid of the extreme stressors of in-person interactions (Winner et al., 2014). To individuals born lacking an auto-navigation of their social minds, participating in social engagements such as working in a team, asking someone out on a date, or playing with a group in the playground can be as or even more complex than learning advanced physics or trigonometry (Winner et al., 2014).

Social connections and relationships are directly impacted and influenced by mental health, wellbeing, and social emotional intelligence. In the following section, I discuss common challenge and growth areas that could be addressed by mental health practitioners.

### **Statement of the Problem**

Neurodiverse people have had to “fit into” society designed by, what some would say, a foreign culture for as long as they have lived in this neuro-normative world. What I have gleaned in my practice repeatedly is that having a neurodiverse person to fit in to alien social norms or cultures causes personal hardships including mental health concerns and relationship complexities. Unmet needs such as feelings of being misunderstood, loneliness, low-self-esteem, isolation, anxiety, and depression lead to adverse effects. On any level, people are more likely to get and continue support if they have someone they believe understands them. When a neurotypical person has hardships, a plethora of like-minded professionals are readily available for support. In contrast, research in a range of contexts such as education, relationships and

technology clearly shows, as identified in my literature review, that there are not enough professionals who support the neurodiverse population. Literature has identified concrete suggestions that could help improve these environments to be more inclusive, such as offering SEL training, setting up UDL classrooms, technology as a resource, and intercultural acceptance. However, as this is a developing field, scholarly literature around practitioners' work with the neurodiverse population is scarce. Of my 87 clients within the past 18 months of private practice, 99% reported at least one negative experience or a set of negative experiences working with an uninformed counselor, therapist, or other mental health provider. This indicates a scarcity of skilled and abled counselors and other mental health providers who understand how to support someone who thinks differently than the "norm". First, we must understand the needs of the neurodivergent, and then explore what works and what does not work so that we can better inform future providers and create a fundamental understanding and build frameworks to inform provider practice. Ultimately, this is the reasoning for my study design that involves interviewing practitioners who work with neurodiverse adults. Hearing their experiences, challenges, perceptions, and recommendations will provide, from their perspective, how to support their challenges and advocate for neurodiverse individuals and their unmet needs.

Some key characteristics of neurodiverse individuals include difficulties communicating, making lasting connections, experiencing sensory sensitivities, achieving sameness, coordinating with others, maintaining eye contact, and expanding nonverbal communication (Simon et al., 2020). Neurodiverse individuals often experience difficulty understanding metaphors used by neurotypical individuals and therefore prefer plain speaking or non-coded language, which is easier to understand (Simon et al., 2020). Preferences for physical contact range from wanting a

lot to wanting little, if any (Simon et al., 2020). These attributes can impact social relationships with partners, siblings, friends, parents, colleagues, and teachers.

Regardless of the communication platform adopted or the relationship type, both neurodiverse and neurotypical individuals identify misunderstanding as a gap in communication. Often, this gap is described as a breakdown in language translation. Mehrabian's (1972) communication model explains how 93% of communication is nonverbal. In spoken communication, the message pertaining to feelings and attitudes can be broken down to 55% body language, 38% vocal qualities, and 7% words (Mortensen et. al., 2017). Decoding another person's body language and facial expressions appears to be a daunting task, leading to frustration and heightened levels of anxiety that dampen one's willingness to engage or interact.

Social learning is a complex web of fibers, including theory of mind and central coherence, among others (Winner et al., 2014). Researchers from the University of Texas demonstrated how the brain's fear center, located in the amygdala, impacts a person's abilities (Silberman, 2015). This can be extrapolated to a neurodiverse individual's inability to succeed and perform well because of hyper-sensory stimulation in the amygdala that generates negative emotions such as fear of a social expectation and intimidation, as well as communication barriers (Silberman, 2015). The amygdala regulates processing of sensory stimuli such as lighting, loud noise, eye contact, and fear, which affect emotions, actions, cognition, and most importantly, the ability to interact with the external world. Research findings indicate that interaction methods that fit the needs of individuals with HFASD enhance their social and environmental adaptations to be more socially effective by decreasing anxiety, which is intensified by social expectations (Silberman, 2015).

## **Rationale for the Study**

Being a neurodivergent individual who, throughout my life, derived support from different sources in various milieus, I believe in examining differing perspectives within these environments through a scholarly literature review. Specifically, how technology impacts social relationships, neurodiverse/neurotypical relationships, findings from higher education, conflict resolution styles within cultural dynamics, and finally asynchronous and asynchronous communication preferences.

A literature review enabled me to grasp findings from the topics listed above, which helped set the stage for my study. Although context, perspectives, and environments change, cultural differences cannot be siloed. Social emotional challenges, relationships difficulties, mental health concerns, and the need for education and advocacy are rooted in the same phenomenon. These hardships are universally experienced in all settings and cannot be addressed singularly, but are interchangeable and transferable, as I hope to demonstrate through a comprehensive literature review. The limitless challenges addressed in the literature are encountered in various environments within a neurodiverse world, posing systemic concerns for its population who are significantly impacted in a negative fashion. A gap analysis to gain a deeper understanding of various perspectives in the literature revealed:

1. prevalence of uninformed individuals in the neurodivergent world
2. neurodiverse and neurotypical people experience communication gaps
3. lack of social and emotional support
4. neurodiverse people experience a wide range of environmental challenges

This literature review also served to understand how current practitioners can help fill the gaps in support and advocacy that are sorely lacking for neurodiverse people and identify aspects

that are missing in the literature. From my in-depth analysis based on personal experience, there is a dearth of insights in the scholarly literature on the experiences, challenges, perceptions, and recommendations of trained practitioners who work with neurodiverse individuals. An investigation into these aspects may reveal if practitioners observe similar findings, particularly if they agree on approaches that are helpful or harmful and if there are themes that are captured in their practice as counselors and providers.

The providers' perspectives, in my belief, are essential to underscore gaps in the literature for a comprehensive, robust, and broad understanding of what it takes to work with neurodiverse individuals to learn how to improve their wellbeing and daily lives. In this context, personalizing this research with my own experiences was an aim to reflect the challenges faced by a neurodiverse client from my perspective as a care provider and counselor.

Three aspects were evident based on findings thus far reported in the literature — the benefits of technology and potential for its further development, understanding cultural differences, and willingness to understand people who are neurologically different. However, the wide gulf that exists between mental health providers and their clients remains and the goal of my study was to narrow the chasm. To achieve this, the perspectives of practitioners who directly work with the neurodiverse population should be captured to gain a better understanding of its importance, examine why it remains unexplored, and identify areas for future developments.

Mental health and wellbeing are at the root of learning, developing relationships, ability to communicate, conflict resolution, and cultural understandings. Without mental health support and advocacy by informed practitioners, these fundamental challenges highlighted in the literature will remain unaddressed. In this regard, the essential role of mental health counselors



and providers reflects their position as building blocks of support in all areas of challenges experienced by the neurodiverse population, as voiced in the literature. Because practitioners are deeply rooted in social emotional learning, emotional and relational development, they create safe spaces by setting up conducive environments with acceptance and understanding. The establishment of a good client-practitioner fit, and good working relationship with clients enable wellbeing and growth that allows clients to feel supported and understood, which are essential for learning and development, improved self-efficacy and mental health, and self-esteem. These ideas are at the heart of my philosophy, which is based on the notion that it is within our reach to impact this population truly and positively. This can have a cascading effect on multiple components of a neurodiverse individual's daily life and function, whether it is in personal relationships, communication, education, or social engagement.

The struggles and challenges faced by the neurodiverse population in specific contexts have been elaborated in various reports in the literature. However, the challenges experienced by mental health professionals while navigating relationships and social interactions, improving social emotional engagement, fostering learning environments, and resolving intercultural conflicts for the neurodiverse population are also crucial to elaborate and elucidate for improving support and advocacy for the neurodiverse population. Thus, enabling providers can help reap rich benefits — address challenges and hardships faced by neurodiverse individuals.

### **Purpose of the Study**

The purpose of this qualitative case study was to explore the experiences, challenges, perceptions, and recommendations of licensed counselors (LCMHC) and other licensed mental health providers, equipped with a Master of Social Work (MSW) or PhD degree, when working with neurodiverse adults. The goal of this study was to better understand themes around

misunderstanding so that we can better inform future providers. An objective of this qualitative case study was to establish the necessary understanding to further demonstrate how future licensed counselors and other licensed mental health providers can better address mental health and relationship concerns of neurodiverse adults.

### **Research Questions**

The purpose of the following research questions was to acquire information from licensed counselors and other licensed mental health providers about their experiences, challenges, perceptions, and recommendations when working with neurodiverse adults:

1. What were their experiences?
2. What were the challenges that they faced?
3. What was their perceived effectiveness?
4. What were their recommendations for working with neurodiverse clients?

### **Summary**

Neurodiversity is a branch of research, which argues that rather than trying to cure or treat the neurodivergent, society should accept, appreciate, and accommodate their needs and should therefore be understood as a culture, without being categorized as disabled or having a disorder. The neurodiverse movement has created an awareness of several neurological identities that people associate with today. Literature in this domain conveys that there are cultural gaps in neuro-normative culture and neurodiverse culture. These gaps consist of lack of understanding on both sides, language barriers, and a lack of educated mental health professionals that can help support the neurodiverse community as they navigate a neuro-normative world.

As a critical scholar, I am particularly concerned with the marginalization of the non-dominant identity groups in organizations through normative discourses. This literature review

critically analyzes SEL and UDL with respect to key concepts, assumptions and implications for professional counselors and other mental health educators and providers. From the perspective of a neurodivergent person, this literature review will help gain a better understanding of the non-neuro-normative perspective in varying contexts. While considering cognitive diversity, it is essential that we examine multiple perspectives in various educational contexts to gain an understanding of how to understand their needs and then help support the daily lives of neurodiverse individuals as a whole.

While most literature has explored the neurodiverse person's perspective, this study will shift the paradigm and look at neurodiverse needs from a practitioner's vantage point. The researcher adopted five criteria for study participants so that they gather deep insights of the neurodiverse experience. The research questions in this study focus on identifying the experiences, challenges, perceptions, and recommendations of licensed counselors and other licensed mental health providers when working with neurodiverse clients. This chapter provides an introduction to the current study, offer the rationale for the study, defines neurodiversity, and explains the study's purpose, and research questions.

## CHAPTER 2. REVIEW OF THE LITERATURE

To better understand how practitioners can support and advocate for neurodiverse individuals, it is essential to build an understanding of the needs and ideas presented in scholarly literature in a range of contexts. If we pursue the idea that perspective taking is critical and context has meaning, then we must understand the challenges and unmet needs of neurodiverse people in a range of life experiences. In this chapter, I have reviewed in-depth and summarized scholarly work in the literature to help build a foundation of knowledge and highlight themes across multiple perspectives, which informed my study.

Neurodivergent, neurodiverse, and neurodifferent are various terms describing skills and abilities of a special person versus that of a generalist. A neurodiverse person possesses a large variation in skills and abilities (Silberman, 2015). For example, one may excel in analytical skills but have scant social emotional abilities. In contrast, neurotypical describes a person's abilities that are all about the same, with little-to-no variation. As an example, one may have analytical skills and social emotional abilities that are both average, such that no one skill or ability is greater or lesser than another and usually falls within a "typical" or "normal" range (Silberman, 2015). Though there are several categories of neurodiversity, individuals with autism comprise the largest population of neurodiverse individuals (Silberman, 2015). Despite a growing number of neurodiverse people encountered daily in classes, communities, and workplaces, there is limited knowledge on their integration and support in the community. In other words, the demand for knowledge and integration surpasses its supply.

Sensory adaptation, explain bloggers such as Muzikar (2018) and others who advocate for HFASD, is a large part of being able to successfully fit into social norms. People who identify as having neurological differences often have sensitivities such that there is a negative

impact on their ability to cope within an environment that overstimulates their senses. Examples of sensitivities include noise vibrations radiated by halogen lights, and several people talking simultaneously in a large room.

The brain's fear center, the amygdala, regulates processing of sensory stimuli such as lighting, loud noise, eye contact, and fear, which affect emotions, actions, and cognition. Researchers from the University of Texas demonstrated how the amygdala impacts a person's abilities. This can be extrapolated to a neurodiverse individual's inability to succeed and perform well because of hyper-sensory stimulation in the amygdala that generates negative emotions such as fear of a social expectation and intimidation, as well as communication barriers (Silberman, 2015). This aligns with the finding that interaction methods fit the needs of individuals with HFASD to effectively enhance their social and environmental adaptations by decreasing anxiety, which is primarily intensified by social expectations. This is an essential understanding to help improve communication and, likely, the ability to create environments using a UDL approach. These features are within the scope of practice of licensed counselors and other mental health providers.

### **Positive Psychology**

Rather than focusing on deficits or continually fixing our self, positive psychology aims to promote awareness of areas of strengths and individual needs (Niemic et al., 2017). Because society limits itself in the act of not trying to better understand differences among people, this deficit mentality fails to advance society and human creativity will drastically disappear, leaving a chasm whose depths cannot be fathomed if we do not adapt, include, and shift perspectives (Niemic et al., 2017). A review of the literature on positive psychology or a strengths-based approach surrounding neurodiversity was conducted to accommodate this paradigm shift.

### **The Autistic Advantage**

Russell et al. (2019), in their study, *Mapping the Autistic Advantage from the Accounts of Adults Diagnosed with Autism*, determined whether autistic adults could talk about their own abilities or if their stories only allowed them to talk about their weaknesses. The authors examined how participants negotiated the gulf between a tragedy narrative and a gift narrative of autism. Participants narrated their life stories and how they viewed their traits as being helpful or a hindrance. The authors concluded that participants were able to narrate their abilities that helped them in their everyday lives.

Implementing a universal approach in schools to accommodate all learning styles is an example of application and research area of intellectual and developmental disability that is missed. A strengths-based approach is an honest attempt to improve daily lives through peer-to-peer interaction, connectedness, and stigma reduction for those who identify as having an intellectual and developmental disability.

### **Applying the Autistic Advantage**

A political critique of the “autistic advantage” only exists in relation to a neoliberal society, and valid communication and intelligence are predetermined by social norms (Russell et al., 2019). A careful and informed application of the “autistic advantage” for a neurodiverse population will help foster positive self-identity and reduction in self-criticism. For example, creating environments conducive to a neurodiverse person’s strengths may help create opportunities for them to excel and contribute to society in very specific and concrete ways that would challenge and move the status quo.

### **Deficits Mentality**

Medical literature comprises alternative narratives identifying both strengths and weaknesses expressed in parallel and focuses on deficits that can impair wellbeing and harm identity. In contrast, advocates and scholars look at autistic traits from a strengths-based approach (Russell et al., 2019), which nevertheless, suffers from scant literature and research in exploration of ways that society can integrate valuable traits with challenges rather than strengths or weaknesses. The neurodiversity movement is a proponent of acceptance, protection, and celebration of differences that acknowledges and supports neurodiverse individuals. However, there exists a scarcity of approaches within the movement that can help integrate the neurodiverse population into society to bridge the gaps of communication and foster a better connection. This understanding offers another opportunity in which licensed counselors and other licensed mental health providers can facilitate change within the daily lives of neurodiverse people, work to bridge gaps, and build communication.

### **Dichotomy**

Though some take an integrated approach, medical models continue to dichotomize strengths and weaknesses as if both can be separated without harming the individual. Demonstration of cognitive abilities through tests conducted in non-realistic environments lacking ecological validity fails to reveal how an autistic adult's strengths impact their daily lives (Russell et al., 2019). To emphasize this further, the notion of autistic intelligence, described as differences in intelligence, is derived from tests that are designed and implemented by a normative framing of actual strength (Russell et al., 2019). In reality, the normative framing to test strength has to change and the context tested for validity to be truly informative (Russell et al., 2019). In their study, "*Mapping the Autistic Advantage from the Accounts of Adults*

*Diagnosed with Autism*”, Russell et al., (2019) explored the imbalances in strengths of adults diagnosed with autism and the heterogeneity of autism that creates many variations, due to which the strengths and weaknesses of autism cannot be compared to typical averages. In other words, a systemized scale cannot be applied to a randomized variation.

### **Virtue, Character Strengths, and Positive Psychology**

Research on virtue and character strengths was initiated by proponents of positive psychology within the neurodiverse movement in response to several disease models of human functioning (Niemic et al., 2017) and resulted in identification of areas for improvement, while ignoring the need to overcome disease and disability. Positive psychology emphasizes improving life, finding meaning, and building on what is good (Niemic et al., 2017) because the future of our society ultimately depends on universally building human strengths and virtues. Niemic et al. (2017) describe interventions that are ready and applicable today such as the ‘aware-explore-apply model 3-phase’ intervention, which is rooted in building awareness of character strengths, breaking through blindness, and making connections on how to apply oneself. The model employs elements of solution-focused therapy and is absolutely applicable for disability support systems (Niemic et al., 2017). However, under this model, humanity is boxed into the defined meaning of each character trait. Despite extensive research in this domain, the presentation of new knowledge warrants additional studies for conceptualization of character strengths and virtues. Niemic et al. (2017) identified 24 “ideal” character strengths, but there could be many more strengths and virtues because a developing society creates additional room for developing valuable traits. From an abstract perspective, there is a need to challenge the positive psychology approach to classify and build on universal positive traits for thinking, feeling, and behaving, which places limits on the scope of positive traits and the possible development of new character



strengths. It is plausible that the positive psychology approach limits society from building character strength that could exceed its “defined” expectation. This interpretation would be a case for applying UDL in clinical and educational settings where labels are removed, and systemization is discouraged.

### **Impact of Positive Psychology**

If professionals who have studied and worked in the area of disabilities cannot adopt the positive psychology approach, which is often seen in corporations and universities, how can we expect novices to adopt such an “outlandish” approach? To take it a step further, should the word “disability” be included in systems that support individuals with disabilities? From a strengths-based approach, identification of the areas of need while emphasizing a person’s strengths and abilities, nevertheless, creates a barrier in the attempt to shift a societal perspective of the disabled to *able with accommodations*.

It is expected that people with disabilities would rate themselves low and less adaptively across all the character strengths, including constructs such as self-determination, where youth with disabilities rate themselves lower than their peers without disabilities (Niemic et al., 2017). Based on current values and beliefs of the disabled, their environments are likely to be conducive to low self-esteem and less than ideal confidence in themselves, feelings of uncertainty, and being ashamed within peer groups (Ajalan, 2017). As expected, promoting and encouraging self-determination enhances this trait for those with disabilities. Evidently, a strength-based approach is necessary for this population because it enables them to overcome innate barriers.

### **In-Depth Review of Literature**

The purpose of including research critiques in this literature review was to provide the reader with in-depth context while exploring non-neuro-normative needs in varying

environments. In the next four sections of the literature review, I have reviewed and critiqued four studies that explored neurodiverse voices, identifying needs in varying context including intercultural-dynamics, communication, higher-education, and relationships. I have reviewed the transferability and reliability of the findings that are important in the development of this research study. Since understanding the mental health needs of non-neuro-normative people is a developing area providing a range of research studies, the study outcomes and critiques provide robust insight into the literature.

### **Intercultural Conflict Resolution**

Hammer (2005) proposed a theoretical framework to examine how emotions and disagreements operate across cultural context to resolve conflicts using a SEL approach through the etic lens of individualism/collectivism and high/low communication. The author developed two measures — Intercultural Conflict Style (ICS) inventory (ICSI) and a 36-item measure — and performed a factor analysis. The article’s purpose statement was to “present (1) a preliminary conceptual framework for describing ICSs, and (2) summarize the development of the ICSI, a measure of ICSs” (Hammer, 2005, p. 677). Despite the lack of novelty of the study, Hammer (2005) acknowledged a variety of past studies on ICS and introduced a conceptual model of ICS and justified its relevance by providing a background on the beginnings of conflicts and their impact on human interaction. Validity testing showed that education, gender or previous intercultural living experience had no significant effect. The author noted the absence of a “conceptual framework and an associated measure that attempts to understand and assess conflict style based on explicit identification of viable” (Hammer, 2005, p. 677) and cultural difference patterns to help examine ICSs.

Hammer (2005) justified the purpose of the factor analysis with sufficient evidence. Due to concerns regarding a large number of classifications describing conflict style, Hammer (2005) sought to minimize them to a more general and culturally-accepted framework. Though the report lacked a 'findings' section, the degree by which the results of the analyses of the distributed measures supported the proposed dimensional models was documented (Hammer, 2005). The outcomes of the factor analysis revealed the proposed two-factor model to be a good fit for the data. Hammer (2005) discussed the potential application of the proposed intercultural conflict resolution style model. Four main conflict resolution styles — discussion, engagement, accommodation, and dynamic — were incorporated into the two-dimensional model, which the author contends was used to mediate conflicting parties in real life and therefore, in professional practice. As an example, Hammer (2005) showed that cultural misperceptions may hinder successful conflict resolution. However, acknowledging that the conflicts are due to differences in resolving styles rather than negative personal traits can improve the chance of disputants addressing their disagreements. The transferability of the findings was not explicitly declared, but Hammer (2005) referred to the applicability of the model to a variety of situations to suggest its use in culturally-diverse populations. Despite these criticisms of the methods, sample and sampling procedures, and data analysis, the transferability of the proposed two-dimensional model was acceptable.

Considering neurodivergent and neuro-normative to be its own specific cultures, the relational dynamics become cross-cultural. The differences in human-to-human relationships are then cultural differences versus normal and not normal. From this mentality we organically level the playing field of interaction wherein the neurodivergent is viewed as culturally diverse rather than 'less than' and often times 'less capable'.

### **Computer-Mediated Communication**

In their qualitative descriptive study, Burke et al. (2010) aimed to elucidate the impact of computer-mediated communication (CMC) on adults diagnosed with HFASD. The study examined the facilitators and problems encountered by HFASD adults, especially when applying CMC and virtual communities for social support. The authors adopted SEL and UDL approaches and explored the successes and challenges of 16 adults (13 men and 3 women) through interviews and observations wherein participants provided new information on current social communication issues that impact HFASD adults, their insights on the utility of existing CMC technology to address identified needs, areas that needed improvement, and their perspectives on inclusive tools and training. Participant responses related to CMC and online communities for social support, narrated in their own words, were captured and analyzed.

The HFASD adults interviewed in their study reported that CMC reduced stress from non-verbal signals, enabled them to find people with similar interests, and adopt pre-defined interaction mechanisms such as birthday greetings. Burke et al., (2010) found that though CMC technology was beneficial at initiating social interactions through interest-based groups and pre-defined activities, participants showed dissatisfaction with CMC technology beyond the initial interactions. My analysis revealed that Burke et al. (2010) employed a post-positivist approach to generate reliable and accurate data and developed new insights from existing literature related to interventions for behavioral developments. The authors also used constructivism in their approach to understand the extent to which the given community identifies with a specific practice such as choosing to socialize using technological devices.

The study by Burke et al. (2010) is a well-intentioned qualitative study that identified multiple areas for further exploration and serves as a building block for continued research.

Despite not being comprehensive and limited by inherent methodological weaknesses, Burke et al. (2010) highlighted the importance of examining relationships between temporal and social pressures. Controlled lab experiments are warranted to compare social conversations to help meet the social communication needs of adults on the autism spectrum.

While the findings explain that CMC technology was beneficial for initiating social interactions and reducing stressors from having to read non-verbal signals, it fails to promote continued social engagement. Though it is subject to interpretation, this inherent weakness of CMC technology highlights a significant gap in support. Therefore, initiation phase advancements in technology promoting continued social engagement such as real time notifications and interactives are needed while reducing social-emotional pressures.

### **Higher Education Considerations**

In their article "*Autism and Accommodations in Higher Education: Insights from the Autism Community*" (Sarrett, 2018) captured the experiences of 66 autistic student participants requiring accommodation specific to their needs in higher education using specific research questions. The author obtained relevant data on participants' experiences and their preferred arrangements related to accommodation, ideal post-secondary experiences, recommendations for creating autism-friendly experiences, and indicators of autism-friendly educational environments, and social experiences.

Because of their special education needs that are usually not attended to, autistic students in universities and colleges may face adverse or difficult experiences. In addition, due to their minority status in universities and colleges, the needs and preferences of autistic students are likely to be overlooked. A significant aspect of the justification provided by Sarrett (2018) to conduct this study was the shift from a general point of view to a specific conclusion regarding

the possible experiences of autistic students in institutions of higher learning where cultural interaction produces inequalities. However, the lack of validation of most assumptions regarding autistic students' uniqueness led to non-objective conclusions. Sarrett (2018) explored the challenges of autistic students and provided concrete recommendations for developing an autism-friendly environment. Recommendations such as inclusive pedagogy, educating faculty and staff, incorporating peer-to-peer support groups and faculty advisors for mentors, and advocacy contribute to new insights and developments for more equality in education around learning differences. The study directly proposes applying Universal Design (UD) to meet the needs of students with autism.

However, Sarrett (2018) assumed that all autistic students do not make prior survival arrangements before going to universities and colleges. As such, they may not need their institutions' interventions to survive. This assumption could be inaccurate based on the experiences of autistic students in universities and colleges who may be potentially influenced by race and income levels in an adverse manner. Therefore, race and income levels should have been controlled adequately in the study to promote validity and trustworthiness.

### **Neurodiverse Couples**

The purpose of the study by Smith et al. (2020) was to discern and interpret the behavior of 13 individuals in an intimate neurodiverse relationship, wherein one partner was diagnosed with ASD. This qualitative study used a phenomenological approach using semi-structured interview guides consisting of 13 open-ended and direct questions for the respondents and narrated in their words. The authors adopted an SEL approach and explored challenges and facilitators experienced by the neurotypical and the autistic partner through interviews, wherein both partners were asked the same questions. The research team provided a safe and welcoming

space for participants to express their vulnerability. The authors reported the strategies used by both partners to cope with their challenges. Smith et al. (2020) demonstrated that neurodiverse couples face a lack of support and highlighted the need to educate healthcare professionals about autism and the cultural implications for neurodiverse relationships.

The authors identified a fundamental problem in how romantic partnerships are set-up from the beginning along with a lack of services that support neurodiverse partnerships. Romantic partnerships are often dictated by neuro-normative rule and are constructed in three distinct phases (a) honeymoon, (b) defining, and (c) establishment. This sets a neurodiverse /neurotypical partnership up for failure from phase one where masking or camouflaging occurs. A neurodiverse /neurotypical partnership is better suited to be structured as an intercultural relationship where differences are understood and acknowledged, and individual change can take place.

Despite conducting a balanced and qualitative study, the study lacked generalizability of the data obtained because participants were recruited only from Western Australia and Queensland, affecting cultural variance. Secondly, most of the participants likely represented a group with higher-than-average cognitive and verbal competencies since they were diagnosed with ASD later in life. Another limitation that I noted was that the study does not mention whether the first author, the interviewer, had prior training or expertise in the topic, which would have been helpful. In my opinion, the impact of the findings made by Smith et al. (2020) would have been significantly enhanced by sampling a large and diverse population.

## Technology Implications

### *Technology and Interpersonal Relationships*

A fundamental question that arises from working with the neurodiverse population is whether technologies create a *techcommunity*, which I refer to as the *techcom effect*. If indeed this posit is true, then additional research is warranted for exploring whether such technologies enhance social isolation or rather, provide remote and beneficial ways of engaging with others. In this section, I briefly discuss the current research on the impact of technology on social learning and communication, as well as its possible impact on neurodivergent relationships. Whether difficulty communicating is an impairment is debatable. A recent study of autistic individuals found that 87% prioritized finding support and tools to deal with their identified difficulties over the need to find a cure for their condition, a position and mindset coined *the neurodiversity paradigm* (Gillespie-Lynch et al., 2017).

### *Technology as a Resource*

Technology can support the family as well as the neurodiverse individual in managing social interactions. Neurodiverse people-specific design technology that appeals to a broad range of needs is feasible for learning new skills and applying helpful tools (Brosnan et al., 2017). Hyan et al. (2014) stated that complex communication needs can affect social participation and therefore, being online with augmentative and or alternative communication may help a person overcome the challenges of face-to-face communication. Nevertheless, controlled experiments are warranted to compare social conversations to help meet the social communication needs of adults on the autism spectrum.

Nevertheless, overlapping conditions can be addressed by technological advances. Participatory design for technology empowers the neurodiverse population by improving



awareness and understanding of autism spectrum that results in increased acceptance and reduced stigma (Politis et al., 2019). Technologies have the potential to address the challenges faced by neurodiverse users. For example, virtual reality, voice assistants, and wearable options have demonstrable and promising results assisting neurodiverse users with executive functioning skills, communication, and interpersonal skills. Advances in technologies have enabled users with diverse needs such as completing tasks and social competence (Motti, 2019).

Communication through aided technology has been demonstrated to be an effective tool for social engagement.

In summary, collaborative technology for face-to-face social interactions, particularly in supporting social development, is fundamental. Digital communication platforms facilitate social interactions for neurodiverse individuals. This understanding might introduce opportunity in which providers can facilitate change with neurodiverse clients. There are several ways that technology can be used to help develop such social skills and therefore, developing methods to enhance these skills is paramount.

### **Conceptual Foundations**

#### ***Variation in Processing***

Chaos and complexity theories originated in mathematics and meteorology (Gleick, 1987; Parker et al., 2003). These two theories demonstrate the discontinuous, dynamic, unpredictable, and nonlinear forces in many life domains (Cambel, 1993). Just as in nature where there are systematic processes and unexplained phenomena, human behavior is also characterized by chaotic and unexplained occurrences that are unpredictable and are subject to rapid change, in addition to routine and typically identifiable behavior patterns. Examples of unexplainable phenomena are emotional responses, wants, and needs. Technology can help

determine predictabilities, identify patterns and provide if-then scenarios to help understand human behavior.

Because neurodiverse individuals have a higher-than-normal ability for pattern recognition, when paired with if-then thought processes that form the building block of software development, these individuals are ideal for computerized interactive engagement (Motti, 2019). Early studies involving virtual reality and robotics have produced unique findings indicating that advanced technology has a role to play in the area of mental health care and for those with autism in particular (Wiederhold, 2020). An individual's ability to consider others' perspectives increases the likelihood of relational success. Further, digital communication platforms facilitate social interactions for individuals with HFASD. This understanding offers another opportunity in which licensed counselors and other licensed mental health providers can begin to facilitate change within the daily lives of neurodiverse people.

### ***Social Emotional Learning (SEL) Theory***

Emotional intelligence refers to defined socio-emotional abilities that enable successful cooperation, learning, and contribution to society. SEL is an approximately 20-year-old concept that lists skill sets such as character education, personality, 21st century skills, soft skills, and noncognitive skills (Jones et al., 2017). The guiding principles of SEL allowed me to conceptualize it as a comprehensive theory to create frameworks and interventions within the realm of social sciences. Learning is a continuous process that occurs despite a shift in our perspectives and forms the core of SEL, which improves our ability to focus our thoughts, manage our behaviors, build relationships, and deal with our emotions. The surge of interest in SEL among educators, parents, and policymakers (Jones et al., 2017) is a reflection of the positive contribution that the SEL theory directly or indirectly contributes to all aspects of human

function regardless of neurological differences. SEL theory-based interventions are at the heart of my work with neurodivergent clients because the theory builds on the fundamental understanding of differences in intelligence, which form the core of neurodiversity.

The theoretical framework is the most imperative aspect of the research process (Grant & Osanloo, 2014) and has been referred to as the blueprint for research studies (Grant & Osanloo, 2014). A theoretical framework to examine the contributions of various interventions on neurodivergent clients based on SEL theory was built on the fundamental understanding of differences in intelligence, which form the core of neurodiversity. This framework is also influenced by an understanding of ASD whose behavioral characteristics are underpinned by differences in genetics, brain structures, and neuropsychology compared to those with typical development. The medical model groups impairments in ASD within social/communication difficulties and restricted/repetitive interests and behaviors, including hypo- or hyper-responsiveness to sensory stimuli. A social model, which forms the backbone of my study, argues that it is important to focus on what the neurodiverse individual can do, to see autism as a difference rather than always use a deficit model, and to focus on enabling neurodiverse individuals by improving their environments. If publicly-funded research must be informed by good patient and public involvement, then inevitably priority research questions and frameworks for judgement of what constitutes good science must necessarily value the social model of understanding neurodiversity.

The theoretical frameworks proposed in my study are based on a strengths-based approach. These frameworks provide evidence for improvement in daily lives of those who identify as being neurodiverse through peer-to-peer interaction, connectedness, and stigma reduction. Therefore, it is essential to have an informed support system and empathetic advocates

who understand these frameworks. A strength-based approach is necessary for the marginalized neurodiverse population who otherwise are accustomed to focusing on their weaknesses because it enables them to overcome innate barriers. Within the strength-based framework, there is a need to challenge the positive psychology approach to classify and build on universal positive traits for thinking, feeling, and behaving. Research (Niemic et al., 2017) in the area has shown the feasibility of two-dimensional models that can be applied to a variety of situations to suggest its use in culturally diverse populations indicating their transferability.

### ***Brain Research***

Brain research on social engagement skill sets, brain research has uncovered connections between language and social difficulties and also demonstrated that students with learning disabilities, including individuals with neurological differences, have difficulties maintaining social relationships (Elias, 2004). The lack of understanding of social, emotional, and neurological differences in this population has led to their exclusion and rejection by their peers, which diminishes the probability that socio - emotional competences will be practiced and therefore further developed. This is the expected outcome since supportive relationships are key to effectively learn and develop SEL skills.

### ***Communication Styles***

Among neurodiverse individuals, Elias (2004) identified differences in communication styles, processing speeds, lack of nonverbal expression, missing social cues and not interpreting nonverbal language of others as common reasons for lack of their social acceptance. Further, three skill areas in SEL that account for the difficulty are (a) recognizing emotions in self and others, (b) regulating and managing strong emotions, and (c) recognizing strengths and areas of

need (Elias, 2004). These experiences can negatively impact learning and create interpersonal and relational conflicts.

### ***Interventions***

Interventions based on SEL theory are the focus of my work with neurodivergent clients because the theory builds on the fundamental understanding of differences in intelligence, which form the core of neurodiversity. The effectiveness of SEL interventions lies in the application of developmentally-appropriate methods and program content for clients and meeting clients in their developmental process. Determining the SEL skills that are important at each developmental stage is dictated by one's neurological status (Jones et al., 2017). Emotional skills and competencies broaden over time and are learned best when there is a positive and supportive environment that fosters willingness to understand others, builds respect for differences, and facilitate autonomy.

Simple tasks such as saying good morning, walking confidently into a room full of people, playing amicably with others in the playground, proper ways to disagree and treat peers, and to be accountable to oneself and hold others for actions taken are examples of SEL interventions for school children. The above interventions that focus on building socio-emotional skills are included in the curriculum that has been designed to foster SEL, which has garnered considerable interest from schools in the United States. Though definitions vary, the Collaborative for Academic, Social, and Emotional Learning (CASEL) describes SEL as: “the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions” (Pignolet, 2018, p.1).

Different terms convey similar ideas including socio-emotional learning, character education, environment, and culture. The SEL theory promotes root cause analysis, understanding the individual, and taking the context of the situation into perspective; while the environment is emphasized, the focus is on the individual. At its core, SEL promotes a culture that asks people to be good human beings (CASEL, 2020) because what ultimately matters is the manner by which people treat each other. While skeptics would relegate SEL to anecdotal and qualitative studies that lack a scientific basis, others such as (Elias, 2004), (Jones, 2017), (Pignolet, 2018) and myself believe that SEL will continue to develop as brain sciences continue to evolve.

The National Center for Innovation and Education (1999) lists three essential SEL principles:

- Caring relationships are the foundation of all lasting learning
- Emotions affect how and what we learn
- Goal setting and problem solving provide focus, direction, and energy for learning

These three principles emphasize the importance of the learning environment, the need for educators to develop caring relationships with their students, and an educator's willingness to help students establish relationships with their peers (Elias, 2004). Based on these principles, it is assumed that SEL is most applicable in a school, university, or other educational settings.

However, it is known that learning is not restricted only to such settings and takes place in many environments outside of an educational setting, including, for example, within relationships during therapy, daily life experiences, and in the workplace.

Activities involving creative arts are types of SEL interventions that draw on multiple domains of intelligence and can improve a person's ability to increase socio-emotional

competence (Elias, 2004). Creative art interventions enable freedom of expression and an environment that fosters unique talents and individuality. Based on my understanding of SEL theory, the ability to nurture caring relationships, balance emotions, manage goals, and overcome obstacles in life is essential to learn and develop as people. The transferability and utility of the SEL theory that can be applied in an infinite number of situations makes it appealing for examining neurodiversity. Further, SEL theory identifies the challenge areas that neurodiverse individuals experience and provides content and methods of delivery that are adaptable to their needs. I have explored whether participants in my study used SEL or considered SEL theory when working with clients. Consequently, I have interpreted the results of my interviews with participants from the perspective of the SEL theory.

#### *Different Levels of Support*

Supporting clients as they navigate challenges in their lives and work toward autonomy and mental wellbeing remains the goal of counseling for which counselors and other mental health providers have a wide range of theories to choose from. The SEL theory emphasizes effective management of social interactions and emotions. The comprehensiveness of the SEL theory, whose basis is the awareness that emotional and other flavors of intelligence contribute to many aspects of human functioning, provides a model that integrates thoughts, emotions, and behaviors to exert positive outcomes. Whereas complementary theoretical perspectives such as Albert Bandura's Social Learning Theory (SLT) (Coln, 2017) consider the interaction between environmental and cognitive factors as influencing human learning and behavior, in my opinion, the SEL theory can guide practitioners on implementing learning and development of soft skills to build a well-rounded healthy life.

Understanding different perspectives is essential for growth, development, and prosperity at both individual and global scales. Particularly for individuals from diverse backgrounds who experience threats to independent and interdependent relationships, the SEL theory is a good fit during professional counseling. From my understanding, SEL incorporates practices from SLT, which emphasizes the importance of behavior modeling and social observation and explains how learning from the actions of others help inform one's own actions. At their core, observations and behavior modeling play an important part in social emotional and emotional intelligence. As one observes and models behaviors, they can adapt to new environments and inner experiences. Thus, SLT is a fundamental building block in applying SEL theory. Simply stated, coded information derived from observations is essential to develop life skills and intercultural awareness (Bandura, 2021).

Communication through body language, rules, gestures, and facial features convey the culture of a person or place without the need for speech. Learning to adapt, the willingness to understand, and the ability to translate patterns enable a person to communicate with those around them. Teaching people how to better acclimatize and therefore integrate within different cultures or in other words, the *what* and *how* of communication, is another opportunity for informed practitioners to help improve the daily lives of neurodiverse individuals.

### ***Observations Using Albert Bandura's Social Learning Theory***

Having identified myself as a neurodiverse individual from a young age, I had to learn how to observe and adapt quickly in unfamiliar environments, a concept known as *Nunchi* among Koreans and emotional intelligence and social emotional awareness in the West. Possessing this trait has served me well when acclimating to other cultures during my international travels, which has taught me that accepting the culture we are acclimating to is a



prerequisite. My observational skills and ability to adapt quickly have helped me identify cultural norms, baseline behaviors, and social standards, which have personally benefited me when working with clients. Having acknowledged my differences, I engaged myself in unfamiliar cultures by learning key phrases and sentences to show my social engagement and interest by using available resources, to learn from, mimic, and then iterate. Books, mentors and peers are resources that build my cultural awareness and understanding, which mostly stem from SEL.

### ***Assumptions and their Impact***

Shame and inferiority are emotions experienced by people who assume that they cannot measure up to the demands of those around them. These negative emotions hurt one's feelings, affect their ability to make decisions and regulate social behaviors. Counseling of neurodiverse clients largely explores and identifies thought patterns and beliefs that are perturbed by challenges such as inferiority, isolation, being misunderstood, and despondency. Counseling professionals must be aware of the various types of shame, inferiority, and isolation that occur in cultural settings to ensure that the individual they are working with receives appropriate and effective counsel. They should understand differences, stigmas, and perspectives because counselors are vital cogs in the wheel of support to help neurodiverse individuals identify their strengths and accept their weaknesses. Counselors are in a unique position to help the neurodiverse population uncover, learn, and develop an identity that incorporates all aspects of who they truly and authentically are.

### ***Social Emotional Support and Integration***

Neurodiverse individuals must be recognized as untapped resources in corporate environments, and there is current evidence that major organizations are reorganizing to better access neurodiverse talent. There is considerable enthusiasm for socio-emotional services but

most importantly in counseling where professionals have direct access to clients at an interpersonal and developmental level that will enable us to incorporate SEL skill development to support a wide range of diverse clients. Nevertheless, socio-emotional support for learning and practices that focus on sustainable integration are notably missing across organizations. Integration within these facilities will not be sustainable without the implementation of many theoretical practices, particularly SEL-based interventions.

### ***Universal Design to Universal Design for Learning***

Universal Design for Learning (UDL) is a research-based framework developed at the Center for Applied Special Technology (CAST) that focuses on a particular application of UD theory (Moore, 2007). In their article, *Teaching Every Student in the Digital Age*, Rose et al. (2002) provide a concise articulation of UDL and state that “barriers to learning are not, in fact, inherent in the capacities of learners, but instead arise in learners’ interactions with inflexible educational materials and methods” (p.vi). Therefore, the fundamental premise of UDL is that failure to learn is not the measure of the inherent capacity of the learner but a reflection of the failure of the learning systems to meet the needs of the learners (Moore, 2007).

While it is debatable that UDL is a theory, my expertise as a neurodiverse couples’ counselor has allowed me to incorporate rational generalizations based either on my techniques that were organically grown unintentionally from UDL or intentionally created using UDL to rationally understand my work as a counselor. Therefore, I have identified UDL theory as the basis for my counseling practice, which heavily favors an observational analysis of my clients. I explored whether the participants in my study used or considered using UDL theory when working with clients. Consequently, I have also interpreted the results of my interviews with participants from the perspective of the UDL theory.

### *Learning Differences*

According to Rose et al. (2002), brain research has revealed differences in learning abilities and therefore, the same instructional approach may not be applicable for every learner, regardless of their abilities. Rose et al. (2002) further explain that processing knowledge in the brain regulates the ability to learn content. Thus, from an educational standpoint, this is often associated with recognition networks or more specifically, how a person associates to or with content. An ideal example of this is whether a teaching style that includes bottom-up and top-down instruction benefits a large student base and accommodates diverse learners (Rose et al., 2002).

### *Understanding UDL*

Indeed, even prior to understanding the importance of bottom-up and top-down approaches, my counseling practice at the clinical level relied on UDL and helped me understand that when dealing with neurodiverse clients, it is essential to implement intersubjectivity and address the why, what, and how of the approach. Currently, through knowledge-building, gaining awareness, and using creativity, my clients and I work together to explore the self. The process that I developed based on UDL theory is demonstrated below and depending on the developmental stage of the client at the time of assessment, this process can be approached from either end of the list. Essentially, the process consists of the following: practice interoceptive awareness, interceptors' interface with the brain region called the insula, sense of self is more apparent, meaning and purpose are apparent to the client, know how you feel, knowledge of who you are, and knowledge of what you want to do.

### ***Theory versus Framework***

Whether UDL aligns more closely with a framework, concept or theory is debatable; however, there are certain fundamental core elements of UDL. In the article, ‘*Support your neurodiverse student population with the Universal Design for Learning (UDL) framework*’ Ross (2019) describes students’ personal experiences and learning differences and the varying range of challenges for engagement, which I have assessed as being addressed within the UDL framework. The study identified three aspects of engagement: (a) recruiting interest, (b) sustaining efforts and persistence, and (c) self-regulating.

Ross (2019) explains that the neurological perspective serves as a guiding principle for the design of learning environments because it recognizes substantial variability in the ability of individual students to use brain networks to learn. In school settings, students including the neurodiverse population, who have learning differences are categorized by “disabilities” (Ross, 2019). The goal of UDL is to support individuals who learn differently by providing multiple means to access each brain network that often sets them apart.

Based on the principles of the CAST design, Meyer et al. (2014) identified three classes of UDL networks within the brain that capture principles of UD and they include:

- Affective networks that monitor the internal and external environment to set priorities, to motivate, and to engage learning behavior: the *why* of learning
- Recognition networks that sense and perceive information in the environment and transform it into usable knowledge: the *what* of learning
- Strategic networks that plan, organize, and imitate purposeful actions in the environment: the *how* of learning.

Providing a range of options with multiple routes to achieve their goals is essential for students who have learning differences to succeed (Ross, 2019). According to Rose et al. (2002), UDL is now more possible than ever because of technologies that make it possible to build learning materials and environments that offer flexibility to accommodate student needs.

Ever since it was first conceived, UDL has received considerable respect and despite largely being applied in educational settings, the conceptual framework provided by UDL can be adapted to other areas including mental health counseling. Because perceptions are complex and intertwined with sociocultural and psychosocial issues, an individual's sociocultural context shapes their perceptions. Inaccurate biases and assumptions are created when perceptions of others are shaped within a different sociocultural context than that they naturally identify with. Therefore, individuals from diverse backgrounds who experience a threat to their identity benefit the most from UDL. However, a significant limitation of UDL theory is that it can only be rarely applied in low socio-economic status and heterogeneous communities because of the focus on the individual and environmental requirements. Therefore, UDL theory is likely to excel in homogeneous cultures where the poverty levels are well above the average.

### ***Application of UDL***

An awareness among counselors and educators of the strengths and weaknesses of each person is important to correctly apply UDL. An assessment of clients' preferred learning method, and offering them different choices for the content used, the tools used for gathering information or producing results, or the order of tasks to be completed may be easy ways to comprehensively apply UDL. Identifying strengths and weaknesses in learning and in domains where clients excel when using certain formats will aid counselors and educators to enhance the effectiveness of their practice.

### *Neurodivergent Learning Style*

Because UDL helps individuals learn based on their processing style, neurodivergent learners have demonstrated robust performance and improved their knowledge base when UDL was put into practice. The flexibility of UDL is apparent even in group settings, where counselors and educators can devote their attention to indigent and disadvantaged individuals while allowing all to thrive in an equalized environment. From my perspective, there are no students with limitations, only individuals who adopt different methods to learn and accomplish the tasks made available to all in a classroom setting. In practice, UDL offers students the freedom with boundaries of authenticity, which breeds the ability and desire to grow beyond expectations.

Since UDL is an adaptive learning program that provides all with equal opportunities, rather than the theory, the resources required and provided to practice UDL are likely to be discriminated against. In fact, UDL theory helps identify an individual's strengths and weaknesses regardless of demographics and captures how unique pathways in the brain comprehend and process information easily, ignoring attention disorders or learning disabilities. In the classroom, UDL facilitates consumption, digestion, and expression of information in an easy fashion for students, which overcomes limiting constraints that improve learning experience and expand their knowledge. Allowing students to choose the methods by which they imbibe information allows for a vast range of diverse students to thrive as they interact with the content at hand.

### *Student Engagement*

Engagement with content and context is facilitated by UDL, which encompasses the ideas of motivation to build on the individual's interests. UDL also taps into the strengths of the

individual's special interest and plethora of knowledge around a particular topic, which is pertinent to neurodivergent people. Engagement with UDL at the individual level identifies the reasons for a person's learning and its relevance to their lives, which gives students the purpose and motivation to learn. Retention of learning helps individuals become self-motivated by guiding them through content that allows for self-reflection and set personal goals.

### ***Strengths-Based Approach***

Customization and strengths-based approaches that provide multiple ways to assimilate materials, such as text, digital and audio books, files, and images are keys to implementation of UDL. The goal of this implementation exercise, whether in a classroom or a counseling setting, is to provide ownership and creativity. The freedom to express and demonstrate acquisition of new information and learning is a UDL principle that considers differences in learning and varying manners of expression. Flexibility in content provides access to material that best meets the needs of individuals with disabilities such as dyslexia, and to enhance the performance of an able person with content-specific instruction. Thus, individuals can opt out of a traditional exam and choose an adaptive expression that fits their strengths. Overall, UDL facilitates retention of learning and freedom to express, which help individuals set the goals of being intrinsically more strategic and motivated.

### ***Educating Counselors***

The increase in demand for mental health providers and counselors capable of dealing with neurodiverse thinkers is likely due to enhanced awareness of neurodiversity rather than its prevalence. Neurodiverse clients who seek support to cope with their learning differences face emotional costs during their development that are often overlooked, and thus endure less-than-ideal learning environments and incompatible instruction. Participants in my study were

evaluated on their experiences, challenges, perceptions, and recommendations in supporting their neurodiverse clients who experience isolation, bullying, shame, loneliness, anxiety, depression, and other mental health considerations.

It would be pertinent to compare traditional forms of therapy such as cognitive behavior techniques with UDL for a neurodiverse population. While the former can be effective because they are expansive in nature and allow for autonomy, acceptance, and reassurance, the negative feelings experienced by clients may be exacerbated, similar to traditional methods of education. However, UDL offers a set of principles and a framework that educators and counselors can use to provide treatment and support by appreciating differences in processing abilities and thinking patterns among their clients. The learning process in neurodiverse individuals is a continually evolving process because abilities in comprehension change when the environment adapts to the individual learner. Thus, the rate at which clients excel in performance is pegged to the appropriateness of the accommodations made. Practitioners must be cognizant of this aspect of UDL and therefore, must seek continuing education and training to increase their knowledge and strengthen their ability to support individuals in the area of neurodiverse counseling.

### *Synthesis of Theories and Frameworks*

The UDL concept emerged with the design of physical spaces for people with disabilities. It has, over time, transformed by incorporating a vast range of concepts and frameworks that can be applied to multiple domains including, but not limited to, classrooms and counseling settings. Several components of the UDL approach (or theory as I prefer to call it), which I scrutinized for the first time, aligns with my therapeutic style.



### *Theoretical Perspective*

However, my biggest challenge with UDL is the lack of agreement on whether to define UDL as a framework, a method, concept, or a theory. There seems to be a fairly clear consensus on the components of UDL and the methodology of its application in a classroom that positively impacts students. Conversely, the multiple incorporating factors that make up UDL also have hindered its application in a clinical setting, where it is yet to be defined from a theoretical perspective. This is reflected in the opinions expressed by the neurodiverse population who are impacted by the paucity of knowledge or adequate support in the realm of their sensory, social, and mental health needs that I have assessed through my own research and critical reviews.

For example, Sarrett (2017) clearly articulated difficulties with social experiences and executive functioning skills of students in higher education and recommended accommodations for the autism community. Sarrett (2017) proposed UDL as one of the solutions, which organically creates an accepting environment wherein faculty and staff focus on student needs and prevents the exacerbation of stress and anxiety. Another overlapping theme between UDL and the accommodation proposed by Sarrett (2017) is the recognition and acknowledgement of varied styles of learning and cognitive abilities.

SEL is commonly referred to as a list of skill sets such as character education, personality, 21<sup>st</sup> century skills, soft skills, and noncognitive skills. The premise of UDL is that failure to learn is not a measure of the learner's inherent capacity but rather a reflection of the learning systems failing to meet their needs. Growth and development are two of the overarching goals of SEL and are also form key principles in the UDL approach. With either approach, the students' perspectives are prioritized, honored, and respected, which allows them to have a voice in choosing the goals of their learning process and the course of education adapted to their

cognitive abilities. The UDL approach reminds educators that neurological differences impact people disparately and a universal ‘one-size-fits-all’ model for knowledge retention simply cannot exist. The SEL approach values strengths-based approach, safe space, and transparency, which are vital for demonstrating trustworthiness within the SEL interventions.

### ***Compatibility***

SEL and UDL are two frameworks whose compatibility I uncovered through my critical literature review. Two studies [Sarrett (2017) and Smith et al. (2020)] focused on acceptance and also (unintentionally) provided support for the inclusion of a UDL approach. Other studies focused on emotions related to conflict, cultural differences, and the use of technology to overcome communication barriers.

Sarrett (2017) stated: “As the population of neurodiverse students entering institutes of higher education rises, it is imperative to pay more attention to developing post-secondary experiences that are more widely accessible and universally designed” (p. 691). Similarly, a narrative in Smith et al. (2020) involving Grace (neurotypical) emphasized the deficiencies in the current services: “I think that every counselor, psychologist, psychiatrist, GP, OT, social worker all of those should have more education in this so that it can be a possibility...information isn’t enough, you need experience” (p. 7).

### ***Filling the Gaps***

My literature review unraveled unmet gaps in research pertaining to the needs of neurodiverse individuals and their urge to overcome relational barriers. Indeed, my familiarity with the gaps that I have critiqued validated my own lived experience and has therefore been my obsession to understand from a UDL perspective, the what (persistence) and the why (interest), so that the how (regulation) can be uncovered. Though I conform to the diversity in application

of UDL and am, in fact, intrigued to learn that my personal philosophy aligns with it, there is benefit in establishing some ground rules, so that UDL can be more universally incorporated by counselors and faculty working with neurodiverse people.

Social isolation, anxiety, lack of support from providers and educators, and incompatible learning environments continue to impact the quality of life for those, including myself, who identify as being neurodivergent. Advances in research have unraveled the needs and challenges of neurodiverse individuals, warranting the demand for novel interventions, techniques, and the desire to deliberate and contemplate the work performed by providers and educators. For example, virtual reality and other forms of technological engagements are advanced SEL interventions that can improve a person's ability to increase social emotional competence. Undeniably, counselors and educators need to build on existing knowledge, adapt and evolve within new cultural norms, change the script, show inquiry, shun labels, and flip the paradigm with techniques and theoretical frameworks to interact with neurodiverse thinkers.

To summarize, individuals with autism comprise the largest population of neurodiverse individuals but there exists a scarcity of approaches within the neurodiverse movement that can help them integrate into society to bridge the gaps of communication and foster a better relationship. Unlike the medical model that focuses on deficits or continually fixing our self, positive psychology aims to promote awareness of areas of weakness and individual needs. Further, due to vast variations and the heterogeneous nature of autism, the strengths and weaknesses of autism cannot be compared to typical averages. Therefore, creating environments conducive to a neurodiverse person's strengths may help create opportunities for them to excel and contribute to society. A review of the literature on positive psychology or a strengths-based approach surrounding neurodiversity showed that the latter approach enables people to overcome

innate barriers but there is a need to challenge the former to classify and build on universal positive traits for thinking, feeling, and behaving, which places limits on the scope of positive traits and the possible development of new character strengths.

The theoretical framework proposed in my study adopts a strengths-based approach to improve daily lives through peer-to-peer interaction, connectedness, and stigma reduction for those who identify as having an intellectual and developmental disability. As a neurodiverse couples' counselor, engagement with UDL at the individual level identifies the reasons for a person's learning and its relevance to their lives. I have identified UDL theory as the basis for my counseling practice, which heavily favors an observational analysis of my clients. While SEL is most applicable in educational settings, the transferability and utility of the SEL theory that can be applied in an infinite number of situations makes it appealing for examining neurodiversity. This review of the literature helps us better understand unmet mental health concerns in research pertaining to the needs of neurodiverse individuals.

Other researchers have adopted an SEL approach to explore challenges and facilitators experienced by the neurotypical and the autistic partner and showed that neurodiverse couples face a lack of support. The need to educate healthcare professionals on autism and the cultural implications for neurodiverse relationships have been brought to attention. Therefore, it is imperative to examine the impact of various social expectations on the neurodiverse population.

Understanding the experiences, challenges, and perceived effectiveness of licensed counselors and other licensed mental health providers who work with neurodiverse adults will offer specific and valuable information that I seek to discern. As a neurodiverse person myself, the focus of my research and clinical work is to help licensed counselors and other licensed mental health providers equip themselves with a better understanding to serve neurodiverse

people by helping them acclimatize and therefore integrate within different cultures. To achieve my objective of hearing directly from the neurodiverse population on how they are impacted by various methods of communication patterns within different environments, I designed a pilot study to explore practices, experiences, and perceptions of neurodivergent people. Data thus generated will be helpful in better understanding the larger issue at hand, such that counselors and other mental health providers can be better informed on how to work with this population.

### **Introduction to a Preliminary and Follow-up Pilot Study**

To better understand how practitioners can support and advocate for neurodiverse individuals, it is essential to build an understanding around their needs and ideas in a range of contexts. Since there is scant literature exploring differences in neurodiverse communication, I believe this review will provide the reader insightful information to better understand communication styles and preferences. In this preliminary and follow-up pilot study review, I have provided brief summaries followed by a review of the findings that continue to build a foundation of knowledge and highlight themes across multiple perspectives that contributed to the development of my study.

The purpose of these studies was to bridge communication gaps, highlight areas of struggle, and evaluate social norms related to communication for neurodiverse individuals who possess a different neurological makeup and live with and among a neurotypical population. The follow-up pilot study aimed to understand the impact of various social expectations on neurodiverse individuals. Specifically, it was designed to recognize patterns, effectiveness, outcomes, interests, and extent of frustration expressed by the neurodiverse population when communicating with their neurotypical counterparts. The hypothesis of my preliminary phenomenological pilot study, which formed the basis for the development and conduct of the

follow-up pilot study, was that an individual's communication needs contribute to their ability to be authentic, effective, and therefore, feel included or excluded, which affects their motivation to contribute. Results from the preliminary pilot study revealed that application of methods that fit the needs of neurodiverse individuals allows them to make adjustments that meet their socially acceptable expectations, contribute significantly, and bring creative insights into a conversation.

The preliminary study (Appendix A-D) analyzed perceptions of how digital communication and other environmental factors affected communication between neurodiverse and neurotypical populations, which was facilitated through literature reviews, interviews, blog posts, and personal experiences. The goal of the preliminary study was to understand how communication methods, components of a successful speaking engagement, the effects of the many communication platforms, and comparability among social engagements were perceived. The perceptions and lived experiences show that the platforms used, the environmental components, and the person-to-person translation play prominent roles in the interaction. From an ethical perspective, the preliminary study elucidated the importance of being willing to understand the target population, novel perspectives, and free choice and autonomy that are conducive for all types of neurological conditions and processing styles.

The focus of the follow-up pilot study (Appendix E-G) was communication, particularly to help bridge gaps, highlight areas of struggle, and evaluate social norms for neurodiverse people. The follow-up pilot study was qualitative in nature and employed a phenomenological approach to examine the shared experiences of how digital communication and other environmental factors affected communication between neurodiverse and neurotypical populations, which was facilitated through literature reviews, interviews, observations, and content analysis. Major findings of the pilot study were that social norms create unnecessary

challenges for the neurodiverse population and that the communication gap between neurodiverse and neurotypical populations can be bridged.

### **Chapter Summary**

This chapter provides an overview of neurodiversity, the impacts of autistic advantage and positive psychology, intercultural considerations, the role of computer-mediated communication, challenges that neurodiverse students face in higher education, an observation of neurodiverse couples, perspectives on technology and interpersonal relationships, useful theoretical frameworks, and insights from two pilot studies on neurodivergent communication and social engagement.

A strengths-based approach formed the basis of the theoretical frameworks proposed in this study, with the goal being to improve daily lives and overcome innate barriers for the neurodiverse population through peer-to-peer interaction, connectedness, and stigma reduction. The framework was designed to challenge positive psychology, and instead classify and build on universal positive traits for thinking, feeling, and behaving using two-dimensional models in culturally-diverse populations. Though UDL offers a set of principles and a framework that educators and counselors can use to help the neurodivergent population, multiple incorporating factors hinder the definition of UDL in a clinical setting, where it is yet to be defined from a theoretical perspective. Establishing some ground rules may enable UDL to be more universally incorporated by counselors and educators working with the neurodivergent.

Within institutes of higher education, UDL overcomes limiting constraints and facilitates effortless consumption, digestion, and expression of information for students that improves learning experience and knowledge acquisition. Thus, a vast range of diverse students thrive as they choose the methods to imbibe information and interact with the content at hand.

Neurodiverse couples face a lack of support, which highlight the need to educate healthcare professionals about autism and the cultural implications for neurodiverse relationships.

Communication through aided technology is the preferred medium for the neurodivergent to communicate with others as it has been demonstrated to be an effective tool to enable neurodiverse individuals prepare for social interactions as needed. Neurodiverse relationships established through computer-mediated communication reduced stress from non-verbal signals, helped find people with similar interests, and pre-defined interaction mechanisms. The outcomes generated from the preliminary and follow-up pilot studies will help develop ideas to improve daily lives and provide insight for better communication strategies for people with neurological differences. The data obtained may inform mental health workers on how to better coach, encourage, and advocate for the neurodivergent within working partnerships.

Cultural differences, communication, education, and relationships impact the daily lives and mental wellbeing of neurodiverse people relative to those who consider themselves neurotypical and therefore these multiple contexts must be examined if their needs are to be appreciated. Literature provides evidence for misunderstandings and often overlooked difficulties experienced by neurodiverse people living in a neuro-normative culture.

Because a paradigm shift from a neuro-normative dominant culture to cross-cultural acceptance involves substantial commitment and effort, as a researcher my goal is to contribute to this effort by exploring perspectives that will inform counselors and other mental health providers to achieve adequate and harm-free support universally for the neurodivergent.



### CHAPTER 3. METHOD

For individuals who identify as being neurodiverse or neurodivergent, interacting with the mental health care system in the USA is often an unpleasant experience because it lacks informed practitioners trained to support this population. The general belief among many neurodiverse people is that only medications can bring healing for their condition or traits. They also experience shame and harbor feelings of being misunderstood, which further worsen their mental health with increased anxiety, depression, and isolation.

Counseling and other mental health support systems can improve daily lives of neurodiverse people if the providers are trained to do so. However, existing literature does not identify nor systematically explore approaches that either harm or help this population, which warrants the need to methodically reveal the risks and benefits from the practitioner's perspective. Until this goal is achieved, we cannot design counseling and mental health support models and interventions.

Conceived as a qualitative case study, this protocol aimed to interview licensed counselors and other licensed mental health providers who are trained to work with neurodiverse clients to explore provider experiences, challenges, perceptions, and recommendations. The data will serve as foundational scaffolding used to inform future research and, I hope, help provide new insights into how trained and licensed providers can support, advocate for, and empower neurodiverse clients.

A qualitative research design was implemented to conduct online interviews with study participants — licensed counselors and other licensed mental health providers — who have been trained to work with neurodiverse adults. In this chapter, the definition of an instrumental case

study, an outline of the research design including sampling criteria, participant information, data collection, analysis, trustworthiness, limitations, and the researcher's positionality are provided.

The research questions of this qualitative case study focused on the experiences, challenges, perceptions, and recommendations of study participants who work with neurodiverse adults. Data obtained from this instrumental case study design will be used to help meet the mental health needs of neurodiverse adults and establish the necessary groundwork to address the relationship concerns of neurodiverse adults. This is relevant because forming relationships can be challenging for neurodiverse people, particularly when the stereotypes associated with autism such as the lack of empathy or care can create tensions in relationships. The premise of this study is the personal belief that understanding oneself is a prerequisite to designing one's own life. Being a neurodiverse person, my understanding of neurodiversity and advocacy was applied in this study to bridge the chasm between neurotypical and neurodiverse people. Subsequent to literature reviews of neurodiverse perspectives that I undertook, an exploration of insights from a different vantage point was warranted. Therefore, I interviewed counselors and other mental health providers to gain insights that might help inform future practitioners to better support neurodiverse people with mental health and relationships complexities as defined in the literature review and pilot study.

### **Purpose of Study**

The purpose of this qualitative case study was to explore the experiences, challenges, perceptions, and recommendations of licensed counselors (LCMHC) and other licensed mental health providers, equipped with an MSW or PhD degree, when working with neurodiverse adults. The goal of this study was to better understand themes around misunderstanding so that we can better inform future providers. An objective of this qualitative case study was to establish

the necessary understanding to further demonstrate how future licensed counselors and other licensed mental health providers can better address mental health and relationship concerns of neurodiverse adults.

The aim of the qualitative case study was to answer four research questions based on information obtained from licensed counselors and other licensed mental health providers when working with neurodiverse adults:

1. What were their experiences?
2. What were the challenges that they faced?
3. What was their perceived effectiveness?
4. What were their recommendations for working with neurodiverse clients?

Based on the literature review and previous pilot studies, it seems possible that licensed counselors and other licensed mental health providers should acquire new knowledge and a fresh perspective when working with neurodiverse clients in a mental health setting because current standard practice is often harmful (Refer to research questions #2 and #3).

### **Research Design: Instrumental Case Study**

Qualitative research is a technique used by researchers, specifically in social sciences, to investigate social interactions, systems, and processes. It also elucidates concepts such as an individual's nature of comprehension, action, and management of daily scenarios in diverse settings (Creswell & Poth, 2018). When investigated in a scholarly fashion, qualitative techniques address the "how" and "why" of research questions, which helps academics make sense of reality, describe the social world, and generate explanatory models and hypotheses.

Qualitative research is one of the preferred means for gathering data from primary sources and analyzing them to make valid conclusions (Kelle, 1995). Unlike a closed question

survey, qualitative research enables a unique and deep understanding of concepts (Rust et al., 2017) because the use of questionnaires and interviews offers an ideal opportunity for participants to freely disclose their experiences, opinions, and feelings without hindrances. Thus, qualitative research helps explore complex phenomena that may be difficult to validate using quantitative surveys (Buchbinder, 2011).

The aims of my qualitative study were to gather data to help meet the mental health needs and establish the necessary groundwork to address the relationship concerns of neurodiverse adults. This is relevant because forming relationships can be challenging for neurodiverse people, particularly when the stereotypes associated with autism such as the lack of empathy or care can create tensions within relationships.

Case studies are a preferred strategy to answer “how” or “why” research questions, when the investigator has little control over events, and the focus is on a contemporary phenomenon or issue within a real-life context (Yin, 2018). A case study guides the reader through a situation where a problem is presented with necessary background information and possible solutions are described along with missing information (Gustafsson, 2017). Flexibility in the case study design is clearly an advantage for qualitative research that adapts to changes (Stake, 1995).

A single case study is best used when applying theory to context, or when creating a better-quality theory, as Gustafsson (2017) implied. This case study explores the experiences, challenges, perceptions, and recommendations of licensed counselors and other licensed mental health providers when working with neurodiverse adults. It also permits a fuller understanding of the subject explored and to comprehensively describe the existence of a phenomenon and in rich detail, gathering various types of information (Grant et al., 2014). It is important to understand and describe the environmental context of the phenomenon studied so that the recipient of the

information understands and produces theory in relation to the context. Thus, by paying attention to a specific case, a particular phenomenon can be easily understood (Maxwell, 2013).

For my research, I used the instrumental case study design based on Stake's (1995) methodology because of its ability to integrate perspectives and complexity of non-neuro-dominant culture and to facilitate an exploration of experiences, challenges, perceptions, and recommendations of neurodivergent people. The design entails exploring a specific case, such as a person, specific group, occupation, department, or organization (LeCompte et al., 1993) and provides insight into a specific issue, redraws generalizations, or builds a theory (Ridder, 2017). For example, one can study the marketing department in an organization to establish its role in promoting growth in the enterprise. The background of instrumental case study is a description of the journey that guides the reader throughout the entire process. Essentially, in this strategy, the researcher must facilitate an understanding from diverse perspectives (Ridder, 2017).

Thus, instrumental case studies are best suited for connecting a broad range of concepts that provide empirical reasoning to study bigger ideas (Stake, 1995). Data thus generated will be helpful to counselors and other mental health providers who can use it to their advantage to be better informed on how to work with neurodiverse people and to understand the larger issue at hand.

### **Participants**

For this study, recruitment was limited to licensed counselors (LCMHC) and other licensed mental health providers such as (MSW or PhD) who had a minimum of two years of experience working with neurodiverse adults. Study participants were drawn from a purposeful sample working in mental health settings. The demographics of the population studied are shown in Table 1. Participants had either a masters level degree, or a PhD, in addition to being a

licensed mental health provider by being certified from an extensive training course at The Peter M. Friedman Neurodiverse Couples Institute through the Asperger/Autism Network (AANE) or other similar professional training that offers a certificate of completion. AANE is a comprehensive series of courses 101 and 201 that teaches counselors and other mental health providers the fundamentals of recognizing and understanding neurodiversity. Each participant was required to live and provide services in the United States, and was identified by gender-neutral pseudonyms and pronouns to protect their identifying information. All participants completed their supervision hours at the time of the study. At the time of the interviews, each participant had more than two years of post-graduate experience. A detailed description of each participant based on a demographic survey is provided.

**Table 3.1.** Demographic Information.

Age	Gender	Location	Ethnicity	Education	Trainings	Yrs	Work Setting
60+	Female	Southeast	White	PhD	Psychology	20+	Clinical Private Practice
50-60	Female	Southeast	White	Masters	Applied Improvisation	14	Private Practice
40-50	Female	Southeast	White	PhD	LPC/Other Mental Health	15	Organization
40-50	Female	Southeast	Other	Masters	LCMHC/ NCC	11	Private Practice
50-60	Female	Southeast	White	Masters	LCSW	14+	Private Practice

### **Common Descriptive Characteristics of Participants**

Participants were aged 40-60 years, female (n = 5), white (n = 4) and unspecified ethnicity (n = 1). All were employed as licensed mental health providers in various settings (i.e., three worked in private practice settings, one worked for a non-profit educational institute and private practice, and one who recently retired from private practice). Participants worked with neurodivergent clients as a licensed provider for five to over 20 years.

### **Sampling Criteria**

Depending on the nature of an investigation being conducted and its requirements, the study design should incorporate the most appropriate sampling technique. Purposive sampling is a methodology to determine the most appropriate characteristics to be represented in the sample and is beneficial when primary data sources available are limited. It entails the intentional selection of participants based on their capability to expound on a theme, phenomenon, perception, or theory (Etikan & Bala, 2017), which reflects their expert knowledge (Etikan et al., 2017). Selection of a sample of universities in Canada to represent a cross-section of Canadian universities is an example of purposive sampling.

Non-random and random sampling are two common purposive sampling techniques, with the former being more economical (Etikan et al., 2017). Lowering costs associated with participant recruitment and gathering data are best achieved with non-random sampling whereas time constraints and financial limitations prevent random sampling. Therefore, I used non-random sampling of participants given that there were four identified criteria for participation in the research study. Because of the limited number of practitioners meeting the inclusion/exclusion criteria for this study, recruitment was based on their criteria in training.

### **Recruitment Criteria**

In homogeneous case sampling, cases with similar characteristics such as age, location, or status (Kovács et al., 2014) are selected to investigate a particular phenomenon to optimize a specific inquiry; the selected traits form the basis of the study. Homogeneous case sampling addresses a specific aspect or characteristics of a particular group of interest. A detailed inquiry can produce conclusive results when the focus is on one trait (Kovács et al., 2014). For instance, if the aim is to determine an increase in prevalence of drug use among youth, homogeneous case sampling will include all youth aged 20 years in a given institution of higher learning, a demographic that is specific to features of a particular group. Adopting this sampling strategy in my study was expected to, therefore, generate factual findings.

Participants in this instrumental case study were recruited from within the United States using publicly listed websites using a Google search. These websites offered a description of the work that participants do, details about their practice including contact information, and the populations they serve. The participants self-selected based on the inclusion criteria provided in the informed consent.

Meeting the inclusion criteria (see Figure 1) prevented incompatible individuals from negatively impacting the study and as well, the recommendations for future licensed counselors and other mental health professionals. The inclusion criteria were:

- 1) Licensed counselor (LCMHC) or other licensed mental health providers (MSW or PhD).
- 2) Reside and licensed in the United States.
- 3) At least two years of experience working part-time or full-time in either a group or private practice setting with neurodiverse clients.



- 4) Completed professional training at The Peter M. Friedman Neurodiverse Couples Institute through the Asperger/Autism Network (AANE).

Applying these inclusion criteria allowed recruitment of participants who were most likely to have experience, knowledge, and the skills needed to work successfully with neurodiverse clients. Additionally, the participants offered specific and valuable information related to the neurodiverse population that the researcher sought to discern.

### **Instrumentation**

Participants who identified as AANE trained counselors (LCMHC) and other mental health providers (MSW or PhD) in the U. S. completed a demographic questionnaire and an interview that allowed for providing insights into their thoughts and experiences. For too long, neurodiverse people have been marginalized without support for their mental health and relationship needs. Given the lack of research on counselors and neurodiverse mental health practice, these findings provided information to fill this gap. The interview questions were crafted to better understand experiences, challenges, perceptions, and recommendations of practitioners who work with neurodivergent people so that their insights might help inform other practitioners working with this marginalized group of people and exert changes within the mental health field.

Participants received an email through Google Forms with a link to a blank demographic survey that was accessed by clicking on the link. They completed the survey and pressed the submit button upon completion. On receiving the completed surveys, I saved the data in a password-protected folder on my password-protected laptop and deleted the Google Forms.

- 1) What is your first name?
- 2) Please indicate your age:
- 3) What is your gender?
- 4) Do you identify as being neurodiverse?
- 5) Do you identify as being neurotypical?
- 6) Which of the following best describes your ethnicity?
  - Asian American / Pacific Islander
  - American Indian
  - African American / Black
  - Caucasian / White
  - Hispanic / LatinX
  - Multiracial
  - Other (please specify) \_\_\_\_\_
- 7) What professional license(s) and/or certifications do you hold?
- 8) How many years of experience do you have in the field as a licensed counselor or other licensed mental health provider?
- 9) How many years of experience do you have in the field of mental health working with neurodiverse clients?
- 10) Please describe the setting in which you currently work:
- 11) Describe your decision to become a licensed counselor or a licensed mental health provider (licensed clinical mental health counselors, licensed social workers and PhDs) working with neurodiverse clients:
- 12) In your opinion, what are the three most important concerns among your neurodiverse clients?

**Figure 3.1.** *Demographic Survey.*

## Interview Questions

Semi-structured interviews were the main source of data collection for this study. The research design and interview questions were created using experts in the field and latest research. The interview questions were reviewed by one qualitative professor who was external to my committee. Two individuals with training in the field of neurodiversity reviewed the research questions and offered support and advice. The final semi-structured interview questions that aimed to address the research questions are listed in Table 2. As shown, the list helped organize the questions in a clear and concise manner for easy comprehension and association with theory and research questions.

Each interview question is marked with an RQ# associating each interview question with a research question. Further, each interview question is rooted within a theoretical framework, identified as SEL or UDL. Each interview took between 45-90 minutes in length to complete. Participants were asked these interview questions during the recorded audio interviews that took place after the informed consent was signed and the demographic surveys were completed.

**Table 3.2.** *Interview Questions.*

1) What word(s) represent your experiences when addressing the needs of neurodiverse client concerns?	RQ#1, RQ#2, RQ#4 SEL
2) What attitudes and beliefs do you identify as necessary for working with neurodiverse clients?	RQ#1, RQ#3, RQ#4 SEL, UDL
3) What knowledge base and understanding do you identify as necessary for working with neurodiverse clients addressing mental health or relationship concerns?	RQ#1, RQ#3, RQ#4 SEL, UDL

**Table 3.3.** (continued).

4) What skills are necessary for working with neurodivergent clients? Why?	RQ#1, RQ#2, RQ#3, RQ#4 SEL, UDL
5) What actions do you identify as necessary for your role as a neurodiverse counselor or other mental health provider?	RQ#1, RQ#3, RQ#4 SEL, UDL
6) Out of the attitudes, knowledge, skills and actions that have been mentioned this far, what stands out to you as the most important information to tell other providers?	RQ#1, RQ#2, RQ#3, RQ#4 SEL, UDL
7) What are the challenges of being a provider working with neurodiverse individuals?	RQ#1, RQ#2 SEL, UDL
8) What are some examples of behavioral patterns you have identified while working with neurodiverse clients? What tools did you use that were helpful?	RQ#1, RQ#2, RQ#3, RQ#4 SEL, UDL
9) Did your professional training prepare you for working with neurodiverse clients? a) If it didn't why? b) If it did why?	RQ#1, RQ#3 UDL
10) How effective have your interventions been while working with neurodiverse clients? How can you tell?	RQ#1, RQ#3 UDL
11) What are your recommendations for working with neurodiverse clients?	RQ#1, RQ#4 UDL
12) Do you have any other topics you would like to address?	

*Note:* RQ - Research Question. #X - research question the interview question aims to address, providing content validity for the interview question. UDL - Universal Design Theory. SEL - Social Emotional Learning Theory. Each question is rooted within one or both theoretical developments.

## Procedure

### *Recruitment Process*

Saturation, while hard to define in qualitative research, is associated with the generation of sufficient data to meet the research objectives (Creswell & Poth, 2018). To reach saturation, Creswell and Poth (1998) recommended a sample size of 5-25 participants for a case study. I aimed to recruit 3-10 participants for this study; additional participants were planned to be recruited by snowball sampling if saturation was not achieved. The number of participants was deemed acceptable because this is a promising field for professionals and there are far too few counselors or mental health providers who are trained and sufficiently informed to meet the mental health and relational needs of the neurodiverse population. Though 10 participants were the targeted number of participants, my dissertation committee found 1-3 participants to be within an acceptable range for this study. Participants who met the inclusion criteria were emailed (Appendix H-I) an informed consent form (ICF) (Appendix J-K) inviting them to participate in the interview. The ICF included information on the participation, rights of the participant, confidentiality, and permissions. To ensure spontaneity of the responses and the interview process, participants were not provided a list of the interview questions prior to the interview but were informed on the purpose of the study and the methodology. The interview questions were piloted by a neurodiverse/neurotypical couple prior to the start of the study.

Each participant enrolled in the study received by email a Doodle poll to schedule interview time, date, and location. An email reminder was sent three days prior to the scheduled interview. After receipt of the consent documents and scheduling was completed, participants were asked to respond to nine open-ended questions presented in a semi-structured format. All participants received a \$35 gift card as compensation for their time and effort. The compensation

incentivized participant recruitment through motivation and/or a sense of responsibility. However, offering compensation may also introduce limitations such as a diminished interest in the study or a participant being solely motivated to participate for the compensation offered, which would confound the data obtained. A countermeasure to overcome such limitations was to establish the study's trustworthiness using triangulation, writing a positionality statement, and peer coding. Triangulation of data involves different instruments of data collection — interviews, field observations, and document analysis. To address validity theory, I used triangulation to compare different theories and perspectives with my own developing “theory” or by drawing from several different fields of study (Breakwell, 2000).

### *Data Collection*

Maxwell (2013) explains how our experiences and theoretical knowledge highlight general problems and issues that organically creates questions. For this study, individual interviews were conducted with licensed counselors and other licensed mental health providers who were trained by AANE to work with neurodivergent clients. The purpose of the interviews was to gain insights on mental health concerns, specifically relationships. The interviews allowed the researcher to build rapport with each participant and address broadly-speaking concepts, insights, and patterns observed by participants while gathering valuable data to help inform future health care providers. Semi-structured interviews with open-ended questions were the chosen means for this instrumental case study because in addition to providing a robust, rich, and in-depth data for the purpose of my study, they are effective for exploring perspectives prior to the interview. The interview was conducted online using the Zoom video conferencing platform accessed using an encrypted and password-protected Zoom account provided by North Carolina State University (NCSU). The Zoom video feature allowed the interviewer to observe body

language and facial expressions while the participants were speaking, which aided in a better understanding of the responses. Non-verbal cues were analyzed using the Zoom video feature and open-ended questions helped gather a robust range of data. Each participant was interviewed once for this study, ideally after work hours, in the evening or on weekends to cause minimal disruption to participants' daily life schedule or family routine. Each interview took 45 to 90 minutes to complete. The interviews were recorded using the Zoom recording feature and within 15 minutes were saved on the password-protected computer under a pseudonym with an individual passcode for each video that was required to open the file. Each participant recording was protected by three levels of digital passcodes and participant confidentiality was maintained at all times during the study.

### ***Data Analysis***

Data analysis involved the coding process, justification for the coding process, and discourse analysis plans. The latter is best used to understand the processes of discursive construction in the organization and management of social life and their social consequences (Willing, 2013). Data collection methods for instrumental case studies are mainly qualitative and include interviews (Yin, 2013). The use of primary and secondary data sources such as newspaper articles, photographs, and official records (Garner & Kaplan, 2019) is common. Codes are labels that assign symbolic meaning to the descriptive and inferential information compiled during a study (Miles et al., 2014) and aid in interpretation of participants' responses in qualitative research (Yi, 2018). Coding is essentially a heuristic process that provides modes of interacting with, thinking, and reflecting on the data, which are ultimately more important than the precise procedures and representations that are employed (Kelle, 1995; Tesch, 1990).

An intensive codebook containing concepts pertaining to the research questions with clearly identified themes from the participants' responses was developed using *in vivo* codes. A review of the codebook identified the need for new codes or for adjustments to the codebook, after which the coding partner reviewed and addressed consistent themes that highlighted new perspectives and insights (Yi, 2018). The themes were solely based on data analysis that was derived from participant interviews, and document analysis. I analyzed curriculum from the AANE Neurodiverse/Neurotypical Couples Training and The International Board of Credentialing and Continuing Education Standards (IBCCES) certified autism specialist training. A coding partner with previous training in qualitative studies and expertise in coding was recruited to code using a process called deductive coding. After data were collected, transcribed using software, and the codebook completed, the instructions for coding were reviewed to allow the coders to familiarize themselves with data (Willig, 2013). The data were examined for text, words, and conversations to identify objects and subjects referred to by the participants. Second cycle coding was used to determine pattern codes. My coding partner and I coded the interview responses line by line using Microsoft (MS) Word. My coding partner took three segments of data from each interview and coded them with track changes. To calculate internal inter-rater reliability, my coding partner peer-coded by comparing the codes made with track changes in the MS Word document to the handwritten codes. The outcome of the inter-coder agreement process was determined for the second round of coding.

To accurately address the main concepts and practice good listening, I constantly revisited the research questions and the participant quotes. To ensure accuracy of data, participants engaged in member checking, wherein they read through their transcripts and made clarifications as appropriate. Once data were synthesized and themes emerged, participants had



the opportunity to provide a review of the themes. To facilitate this, specific folders in Google Drive on NCSU servers were shared with specific participants to avoid the use of permanent links in emails regarding member checking activities. Access to the data and themes was revoked after completion of member checking. Participant demographics were reviewed and considered in the data analysis process.

### **Trustworthiness and Validity**

Trustworthiness is achieved when the instrument used in the study, such as a person, specific group, department, or organization, provides insight required to satisfy the research objective (Curtin et al., 2007). Several strategies including triangulation, writing a positionality statement, and peer coding were used to establish the trustworthiness of this study, which is also achieved if the approach can assist in redrawing generalizations and building a hypothesis.

Triangulation is exhibited when the researcher draws upon many data sources (Creswell & Poth, 2018). Triangulation was adopted in this study using previously conducted pilot studies that informed the current study using semi-structured interviews with qualified participants (see Appendix E) and document analysis. In individual psychology, content analysis has become an established method of inquiry since pioneering work by Allport's (1965) (Krippendorff, 1969). Krippendorff (1969) stated that psychologically-oriented researchers have developed a variety of inferential techniques in the course of analyzing personal documents. Additionally, my positionality statement highlighted the experiences, biases, and values offered in this study. The use of inter-rater agreement, referred to as clarifying researching bias (Creswell & Poth, 2018), through peer-coding was introduced in this study.

### ***Potential Research Bias***

A reputable doctoral student was carefully selected to serve as my data collection partner. The two of us were aware of and sensitive to any implicit bias and recruited participants who met eligibility criteria. Prior to their use on the participants, open-ended questions were peer-reviewed by a neurodiverse/neurotypical pilot couple to help reduce bias. I used fundamental counseling skills such as reframing, reflection and other clarifying questions to gain an in-depth and better understanding of participants' responses (Wolcott, 2013). As with any bias, there are always potential dangers in having insider perspectives and knowledge (Creswell & Miller, 2000). As a member of the neurodiverse population, I continuously and critically examine what I refer to as the familiar (Dial, 2005), which is a risk if not taken seriously. Therefore, being an insider requires me to dig deeper and question presumptions to enable myself to see new facts presented. Since it is impossible to eliminate all biases, beliefs, and past experiences that comprise a researcher's subjectivity (Dial, 2005; Patton, 2002), in the context of qualitative research such as this instrumental case study, I acknowledge this limitation of my research through the lens of my historically - and culturally - created point of view (Creswell & Miller, 2000; Dial, 2005; Maxwell, 1996).

Donning a researcher's hat has helped me face intimidation over comprehending broad descriptions and insights provided by neurodiverse clients. However, as an identified member of the neurodiverse population, I organically have an insider status as well as a fundamental cultural understanding that the participants may be deprived of. Though the relationship with the participants is definitely built on common grounds, it is not equal *per se* and will be acknowledged. Therefore, I have disclosed my position and analyzed the unfamiliar in the process of gathering data (Yin, 2013).

### *Positionality*

Participants were recruited from publicly listed websites through a Google search. These websites offered a description of the work that participants do, details about their practice including contact information, and the populations they serve. The participants self-selected based on the inclusion criteria provided in the informed consent. Though the participants were selected through Google search, I am acquainted with some of them through training programs such as AANE or autism training for practitioners, and as fellow colleagues working in the same domain of research and counseling.

As a neurodiverse person myself, the focus of my research is to help licensed counselors and other licensed mental health providers equip themselves with a better understanding to serve neurodiverse people. Regardless of an individual's neurological differences, my belief lies in the possibility that understanding oneself is a prerequisite to designing one's own life and because I feel called to help bridge the chasm between those with and without neurological differences, I feel passionate about bringing together an understanding of neurodiversity and advocacy.

The deeper and more personal reason for embarking on this study is my fundamental belief that learning from people who think differently provides insight, creativity, and innovation. Therefore, we must create an environment conducive to accepting differences. It was not until I worked in a widely neurodiverse environment that I noticed vast differences in patterns, behaviors, communication styles, and varying level of needs that propelled me to design a study to help inform future licensed counselors and other licensed mental health practitioners.

### **Chapter Summary**

This chapter provides an outline of the methodology for this study, including the research design, the definition of instrumental case study, sampling criteria, participant information, data

collection and analysis, trustworthiness, limitations, and my positionality. The research questions of this qualitative case study focused on understanding the experiences, challenges, and perceived effectiveness of licensed counselors and other licensed mental health providers who work with neurodiverse adults. The research design incorporated an instrumental case study because it facilitated an exploration of experiences, challenges, perceptions and recommendations of neurodivergent people. Given that there are four identified criteria for participation, a non-random sample of participants was taken using homogenous case sampling to generate factual findings. Applying these inclusion criteria allowed enrollment of participants who were most likely to have experience, knowledge, and the skills needed to work successfully with neurodiverse clients.

At least one participant was recruited, which was deemed acceptable by my committee because this is a promising field for professionals and there are far too few trained and sufficiently informed mental health counselors to meet the mental health and relational needs of the neurodiverse population. Participants were interviewed online using the Zoom audio conferencing platform and data collected were subjected to coding and discourse analysis. Triangulation, writing a positionality statement to highlight my experiences, biases, and values, and peer-coding to determine inter-rater agreement were used to establish the trustworthiness of this study. As with any bias, there are always potential dangers in having insider perspectives and knowledge and as an identified neurodiverse person, I have declared any disclosures to this effect. The differences in patterns, behaviors, communication styles, and varying level of needs among neurodiverse people propelled this study design with a view to help future licensed counselors and other licensed mental health practitioners equip themselves with a better understanding to serve neurodiverse people.

## CHAPTER 4. FINDINGS

The purpose of this qualitative case study was to explore the experiences, challenges, perceptions, and recommendations of licensed counselors, licensed clinical mental health counselors (LCMHC) and other licensed mental health providers (for example, graduates with a Master of Social Work (MSW) or PhD) who work with neurodiverse adults. An instrumental case study approach was used wherein licensed counselors and other licensed mental health providers responded to the following four research questions (RQs) when working with neurodiverse clients:

RQ 1: What were their experiences?

RQ 2: What were the challenges that they faced?

RQ 3: What was their perceived effectiveness?

RQ 4: What were their recommendations for working with neurodiverse clients?

Training curricula for providers who work with neurodiverse clients were analyzed to better understand experiences, challenges, effectiveness, and recommendations from three documents that have been used to help educate these professionals. The significance of this analysis was to flip the script and discover themes and subthemes between two different professional training curricula in relation to the date of their participation. The analysis produced three themes; (a) elements of the condition to be considered, (b) theory, and (c) practice. Difficulties in communication was considered the major theme within the curricula.

Reasons for becoming a mental health provider varied among the participants. All five participants identified personal experience as their reason for working in neurodiversity. Moreover, two participants identified the need to better address mental health challenges as their reason. In addition to masters' level education or equivalent, all five participants advanced their

education and training through the Asperger/Autism Network (AANE) and other professional educational training including, but not limited to, the International Board of Credentialing and Continuing Education part of the Autism Member Network.

All five participants provided at least three significant mental health concerns impacting their clients. Anxiety was the most frequently-mentioned mental health concern (5 of 5 participants), followed by masking or camouflaging (4 of 5 participants), negative influences of blame (1 of 5 participants), and sensory sensitivities (2 of 5 participants). Other mental concerns that were mentioned included disempowering personal narrative, need for connection, need for attachment, and need for intimacy.



**Figure 4.1.** Demographic Profile of Participants in the Study.

### **Individual Participant Profiles**

Participant #1 was a white American with a PhD, a licensed clinical psychologist for over 20 years and trained in child and adolescent psychology. She was in the process of transferring clients as she prepared for retirement. She was trained as a Clinical Child and Adolescent Psychologist working in Behavioral Health and Social Services. She believed her graduate-level education in psychology helped her understand what is typical and learned considerably from her cultural diversity and neurodiversity course that she took years ago. Although the terms and phrases have changed over the years, she appreciated the advancement in the behavioral health fields. Towards the later part of her career, she worked with neurodiverse individuals and couples. When asked about challenges she faced as a practitioner, her perspective was that she did not see her work as challenges rather found it a joy and to be enlightening. She further expressed how rewarding the work had been over the years. She emphasized that a practitioner needs to have a broad knowledge base and life experience to be able to work with neurodiverse clients. She also emphasized that through every client interaction there was something to learn and value. She listed the three important concerns expressed by her neurodiverse clients as (a) same need for love as anyone else, (b) same need to connect as anyone else, and (c) same need for attachment as anyone else.

Participant #2 was a white American who worked in a private practice in multiple settings including a traditional office, group work-group room, and computer-based work such as Zoom, Skype, and FaceTime. She was a licensed psycho-dramatist with extensive knowledge in neurodiversity and experience with the AANE. Her practice as a psychodramatist for 12 years led her to work with neurodiverse clients for 14 years. She had a JD license and was a graduate of the Hudson Valley Psychodrama Institute, where she was trained in various specialties such as



Applied Improvisation and Psychodrama with couples and families. Following her training, she worked with groups, which revealed that her training was effective when applied to neurodiverse individuals and couples. She stated, “It was less of an actual “decision” as falling into it by running a neurodiverse dating group in 2007. I found I loved working within this population. My decision was made based on that first group I ran.” When asked about her training, she said, “My training prepared me for the work I do today. I was trained in perspective taking and role reversal.” She also found that self-study and independent research contributed to her expertise in the field. She listed the three most important concerns expressed by her neurodiverse clients as (a) not being heard or understood, (b) being blamed, and (c) the use of broad generalities to explain individual behaviors.

Participant #3 was a white American with a PhD and worked in multiple professional settings including private practice, schools, churches, and agencies. She worked with neurodiverse couples training through AANE and currently at her own counseling organization. She worked as a Licensed Professional Counselor for 10 years and for 13 years in other mental health services with a combined 23 years of experience working as a mental health provider, of which 15 years were spent specifically working with neurodiverse clients. She revealed that she worked as mental health provider for a year before her daughter was born and that dealing with the two years it took for providers to diagnose her and their lack of understanding of her led her to narrow her focus to the neurodiverse population. She listed the three most important concerns expressed by her neurodiverse clients as (a) lack of connection, (b) one or both persons feeling emotionally abused or gaslit, (c) harm done in counseling by providers who did/would not identify autism spectrum disorder (ASD) or understand how neurology matters in counseling.

Participant #4 was an American, of unspecified ethnicity, with expertise in treating neurodivergent individuals and couples in her private practice. She was an LCMHC who specialized in counseling work as a neurodiverse counselor with extensive training through AANE. She identified as a neurodiverse individual and specialized in counseling adults with varying neurological profiles. She worked as a licensed practitioner for nine years and currently holds licensure as a mental health counselor and nationally certified counselor and had 11 years of experience working with neurodiverse clients in mental health settings. Her personal experiences, graduate level education, internships, and research, as well as book writings, research, trainings, and some serendipitous events had prepared her to specialize as a LMHC and National Clinical Counselor (NCC) that helped inform her expertise and work as a neurodiverse practitioner to help adults and couples because she loved working with the population. She also completed additional training through the AANE. She listed the three most important concerns expressed by her neurodiverse clients as (a) communication and social challenges, (b) emotional issues or gaslighting, and (c) relationship issues.

Participant #5 was a white American who worked in the private practice setting as a Licensed Clinical Social Worker (LCSW) for over 14 years and had extensive knowledge, education, and working experience with neurodiverse couples through AANE in group settings and on a one-on-one basis. Her LCSW training, professional development, and experience with many clients informed her practice and knowledge base over the years. As an expert in her field, she says, “providers working with this population should thoroughly understand autism spectrum disorder, Asperger’s and what it means to be neurotypical”. She listed the three important concerns expressed by her neurodiverse client couples as (a) feeling so alone, (b) feeling as if no one understands them, and (c) feeling like no one gets it or understands the relationship dynamic.

### **Emerging Themes and Sub-themes**

This section provides the themes and findings from the analysis of data collected from the participant interviews. The researcher (CLM) created a codebook to highlight relevant themes including (a) facilitators, (b) challenges, and (c) suggestions for improvement from the transcripts. The coding partner (AA) then analyzed the codebook and transcripts. CLM and AA engaged in line-by-line coding that was categorized to determine themes. Subthemes also emerged that connected to the research questions (RQs) focused on the experiences, challenges, perceptions, and recommendations of licensed mental health providers who work with neurodiverse clients. The findings from the interviews are presented and organized by the RQs of this study.

At the beginning of the interview, the participants were asked to reflect on words that represent their experiences when addressing the needs and concerns of neurodiverse clients, and their responses reflect the complex nature of these experiences that later became evident in the developed themes. Participants perceived their profession as being “rewarding” and “ever-evolving” (Participant #1). When asked what word(s) represent participants’ experiences when addressing the needs of neurodiverse client concerns, they used words such as “lack of understanding”, “anxiety”, and “blame” (Participant #2), as well as “confusion, misinterpretation, frustration, anger, hurt, [and] cluelessness” (Participant #5). These feelings were evident in the interview, when they talked about facilitators and good practices, as well as about their challenges that ultimately hindered the effectiveness of these practices. These facilitators and challenges are outlined in sections 1 and 2, respectively. Table 1 presents themes that were developed as a result of the analysis of interview transcripts. The recommendations that the participants made were discussed.

**Table 4.1.** *Interview Thematic Framework*

<b>Theme name</b>	<b>How many participants discussed it</b>	<b>How many times it was discussed in total</b>
<b>Facilitators</b>	<b>5</b>	<b>109</b>
Being flexible, responsive, and open-minded	5	21
Being sensitive to behavioural patterns	5	5
Being a good and considerate listener	4	13
Having broad knowledge	4	13
Being empathetic and sensitive	4	12
Being unbiased and understanding	4	12
Understanding individual differences	4	10
Having training and experience	4	9
Being genuine and authentic	4	8
Understanding yourself	1	3
Being able to assess and diagnose	1	2
Being patient	1	1
<b>Challenges</b>	<b>5</b>	<b>19</b>
Diagnosis and identification	2	4
Gaps in research and understanding of certain conditions	2	4
'Difficult' patients	2	2
Every client and context are different	2	2
Not enough healthcare professionals	1	2
Inconsistent terminology	1	2
Balance between building trust and getting too personal	1	1
Helping the client break the stereotype of a neurodiverse person	1	1
Not enough training and preparation	1	1

**Table 4.2.** (continued).

<b>Theme name</b>	<b>How many participants discussed it</b>	<b>How many times it was discussed in total</b>
<b>Suggestions for improvement</b>	<b>5</b>	<b>10</b>
Continuous professional development	3	3
More research is needed	2	2
More therapists are needed	1	2
A more outcome-driven approach to therapy	1	1
Self-care	1	1
To employ research-based practice	1	1

### ***Section 1: Facilitators***

Participant “experiences” (RQ 1), and “effectiveness” (RQ 3) were analyzed from the interviews, which were tabulated under facilitators. A discussion of the challenges addressed how they hindered effectiveness. The most discussed facilitators (Table 1) were *being flexible, responsive, and open-minded*, characteristics that were also linked to several other facilitators. Participants mainly focused on two aspects of this flexibility — responsiveness, and open-mindedness — namely on being able to react on the spot to various unpredictable situations and on being open to acquiring new knowledge. As for being responsive, it was important to “be flexible in your thinking” (Participant #1), and though the participants commented on the importance of theoretical knowledge and preparation, “over-thinking can [also] make the practitioner think they already know or already understand the client, which is harmful” (Participant #2). Participant #2 further elaborated, “practitioners shouldn’t want to define the client by the diagnosis” and instead should “go with the identity the client wants or uses”. In other words, “client is leading the dance” (ibid.), and it was important to be responsive to what

was happening at any given time. As noted above, this theme also referred to being open-minded towards new knowledge, and the participants stressed the importance of being “very, very, very broad in your knowledge” (Participant #1) to be able to flexibly respond to a variety of diverse situations and clients.

*Having broad knowledge* was a separate theme, and the participants explained that it was crucial to “attend workshops and conferences”, “get immersed in a community” (Participant #4) of professionals, and explore other ways to gain knowledge, as “this will give you a lot of different perspectives” (ibid.). The related notion of *having training and experience* was considered important because the participants praised their professional training and their education, except for one participant who was not happy with their training (see section 2), corroborating Participant #4, who opined that “training and first-hand experience is important”.

Being flexible and responsive also involves being able to “listen to your clients and interpret it back” (Participant #5) and *being a good and considerate listener* was a separate theme that emerged from the discussions. The participants commented on the importance of asking questions, using “curiosity” (Participant #2) and being “spontaneous and present with the client” (ibid.), while stressing the importance of just being able to “listen and trust” (Participant #4) the client. While knowledge was important, being able to react to specific situations was crucial. In addition to having theoretical knowledge, *understanding individual differences* was important, which was explained by Participant #2, “standardization does not work with this population” and over-relying on theoretical knowledge may lead to “generalizations” and “bias”. This was in congruence with Participant #1 who reflected, “what worked for you before might not work for you in this context” and “you might have to change the narrative for clients”, which again linked back to flexibility when working with neurodiverse clients.

When dealing with clients, participants found it crucial to be *unbiased and understanding*. As noted above, “everyone is different” (Participant #1) and, therefore, “you cannot come into this work with preconceived bias or preconceived notions” (ibid.). Several participants also shared Participant #2’s view that “a neurodiverse label doesn’t define the person”, so one needs to “let go of the lens of neurodiversity until it’s needed”. As Participant #2 further explained, “practitioners shouldn’t want to define the client by the diagnosis”. “Not getting stuck in neurodiverse/neurotypical mindset” (Participant #3) and not being biased is, therefore, crucial.

*Being empathetic and sensitive* was important because the “ability to put yourself in [the clients’] shoes, put yourself in their eyes, put yourself in their role” (Participant #2) and “you must have your heart in a place that is open” and “meet your client where they are at” (Participant #1), to “see things how they see it” (Participant #2) fit into the narrative of the provider being unbiased and non-judgmental. Overall, participants believed that “compassion should be right there at the forefront” (Participant #2) in this profession, which is necessary to generate mutual trust that is important because “clients typically don’t feel safe” (Participant #2) in this environment. This enabled “being sensitive to people you are working with” (Participant #1) and treating them fairly. Participants found it important to treat the clients just as one would treat any other person and not “like they are stupid” (Participant #2). Partly related was the importance of *being genuine and authentic*, as this ultimately contributes to trust. Because clients like “honest” (Participant #4) therapists, the latter need to “use curiosity”, “be present with the client” (Participant #2) and just “trust the client and have humility” (Participant #4).

In response to behavioral patterns that the participants noted while working with neurodiverse clients, though not directly stated by participants, it was inferred from their

responses that *being sensitive to behavioral patterns* was important. This corroborated with the desirable qualities of a good provider — recognizing such patterns, being responsive, and open-minded. The behavioral patterns ranged from communication patterns of the clients, through behaviors such as “masking and camouflaging” (Participant #2), to the specific sense of humor of neurodiverse clients. Each participant had plenty of observations in this regard, and it was clear that they were very observant and sensitive to these various patterns.

*Example extracts included:*

Participant #1:

“Biggest example masking and camouflaging. Masking to being themselves. Masking is to benefit the neurotypical person. Being themselves is a shock to the neurotypical person. Tools to use depends on if the client cares. Look at the scenes. When and why, they put on the camouflage. Examine the scenes and ask why and when. Out in the world are they what others what them to be? In their home are they angry and bitter? Work on saying ‘no’, how to say ‘no’ when it won’t serve the client and how to say ‘yes’ to things that will benefit you and others.”

Participant #2

“That’s difficult, depends on where the client is at. Acceptance through the education process. Denial to opposition- they may need more time. Often the younger ones are less stigmatized to counseling. Older like 40s and older struggle with stigma around counseling. Education, equipping, effective strategies. The goal is not to “neurotypicalize”. Starting point is assessing what is most challenging. Understand what the issues are. I went back to school for conflict resolution and communication theory. This helped me understand and teach both. It’s an educator’s role”.



Participant #3

“Sometimes anger management support with a psychiatrist. Mindfulness meditation, DBT application, DBT for females on the spectrum. CBT, DBT terms and jargon. Gratitude lists. My clients tend to focus on the negative and tend to be hard on themselves. Perspective taking helps- - My clients tend to have context blindness and miss the context of a situation. My clients tend to not be able to trust their own perspectives” (Participant #4).

Being able to recognize such patterns, coupled with the previously discussed importance of being responsive to each situation, essentially contributed to *being able to assess and diagnose*, which was mentioned as an important skill by Participant #3.

Finally, one participant commented on the importance of *understanding yourself* as a therapist, and another mentioned *being patient* as another desirable characteristic.

Overall, this section provided insight into providers’ experiences and ways in which they determined effectiveness of their practice. Facilitators provided detailed information pertaining to the experiences and effectiveness of providers who work with neurodiverse clients.

## Section 2: Challenges

**Table 4.2.** *Challenges.*

Theme name	How many participants discussed it	How many times it was discussed in total
<b>Challenges</b>	<b>5</b>	<b>19</b>
Diagnosis and identification	2	4
Gaps in research and understanding of certain conditions	2	4
'Difficult' patients	2	2
Every client and context are different	2	2
Not enough healthcare professionals	1	2
Inconsistent terminology	1	2
Balance between building trust and getting too personal	1	1
Helping the client break the stereotype of a neurodiverse person	1	1
Not enough training and preparation	1	1

Participant “challenges” (RQ 2) were analyzed from the interviews, which were tabulated under “challenges”. As previously noted, participants enjoyed their work and mainly focused on positives, as well as on characteristics and skills that made their work more effective and easier.

Two participants found a “problem” (Participant #4) with discussions on *being able to assess and diagnose, diagnosis and identification*, when reflecting the importance of being responsive. They raised concerns about the proper training and the lack of specialists who can accurately diagnose their patients and explained that “being misdiagnosed and medicated incorrectly is problematic for everyone involved” (Participant #3). Participant #3 explained that it was important to “get out of your head and stop using the medical model” in order to diagnose

correctly, which reflected the importance of being observant and responsive and of being able to make the correct judgment based on individual clients.

*Gaps in research and understanding of certain conditions* was another challenge, with Participant #3 explaining that this specifically led to wrong diagnoses:

Women with ASD are typically improperly diagnosed with OCD or borderline personality disorder, anxiety, depression or treatment resistant anorexia. Men with ASD are typically improperly diagnosed with OCD, narcissistic personality, ADHD or Bipolar.

Participant #2 believed that “there needs to be more research done on high functioning autism disorder” and Participant #1 found “the wording and language have changed”, emphasizing concerns about this *inconsistent terminology*. These gaps in understanding, coupled with the fact that *every client and context is different*, made the task of effective identification and treatment particularly challenging. As previously noted, an overreliance on theoretical knowledge may pose problems, so it was important to make a judgment based on individual clients, and to “understand and learn” (Participant #3) on the spot, based on these individual differences.

Two participants discussed “*difficult*” *patients* as a potential challenge, with concerns about “working with delayed individuals, meaning their IQs below 40” (Participant #1) and the difficulty of working with patients who have “co-occurring mental health issues, for example substance use and anger management” (Participant #5).

Participant #4 raised concerns about *not enough healthcare professionals* and particularly explained that “I wish there were more of us” and that we “need people to get trained, need people to do the research”. Participant #3 believed that *there is not enough training and*

*preparation* and explained that her education was “absolutely not” enough and did not prepare her for the job.

Participant #5 commented on the difficulties in maintaining *balance between building trust and getting too personal*, which were challenges relevant to the actual practice:

1. Some practitioners share their experience because they believe it makes them more believable, more reputable, more relatable, and creates connection.
2. I think it can work either way, but I think there are some risks such as the AS person assuming you are having had the same experience, there could be projection, one partner could feel more allied with the practitioner.
3. I was taught to be a blank slate that there is a firm boundary between personal and professional. I stick to what I was taught and share little to none. Either way I think it can work and we know clients will self-select. I do think it’s an interesting topic.

Participant #2 believed that “the biggest challenge” is *helping the client break the stereotype of a neurodiverse person* and reflected:

“A big part of the work is understanding that you are not less than because of your neurological wiring. Getting past that wall since that message has been so engrained in them. Most people don’t ask a person their story rather they ask the problems and what contributes”.

Overall, this section provided insight into challenges that providers faced within their practice. These expressed challenges provided detailed information around what future providers who work with neurodiverse clients might want to prepare for in their future training.

Based on the above discussion of challenges faced by the therapists, that of the facilitators, and recommendations made by the participants, future recommendations are outlined in the following section.

### *Suggestions for Improvement*

**Table 4.3.** *Suggestions for Improvement.*

<b>Theme name</b>	<b>How many participants discussed it</b>	<b>How many times it was discussed in total</b>
<b>Suggestions for improvement</b>	<b>5</b>	<b>10</b>
Continuous professional development	3	3
More research is needed	2	2
More therapists are needed	1	2
A more outcome-driven approach to therapy	1	1
Self-care	1	1
To employ research-based practice	1	1

Participant “recommendations” (RQ 2) were analyzed from the interviews, which were tabulated under ‘suggestions for improvement’. The most frequently-mentioned suggestion was undertaking *continuous professional development*, which also reflected the previously discussed importance of both having a broad knowledge and having training and experience. As a therapist, one needs to “be well rounded and be in the know generally and continue your education” (Participant #5), which is congruent with the opinion of Participant #1 who believed that one needs to “learn as much as you can” about various aspects related to the job.

From the discussions, the suggestions that emerged from two participants were that *more research is needed* with Participant #1 recommending therapists to *employ research-based*

*practice*. Reflecting the previously discussed challenge of *not enough healthcare professionals* (see section 2), Participant #4 explained that it “would be great” if there were *more therapists*. Participant #4 suggested *a more outcome-driven approach to therapy*, explaining that this would be “a benefit for people on the spectrum” and that “therapy has to have an agenda where the therapist is constantly checking in with the client”. Participant #5 suggested that therapists should remember about *self-care* and explained that “it’s important to pace yourself and don’t take on more [clients] than you can”.

Overall, this section provided suggestions from providers who worked with neurodiverse clients. These suggestions provide detailed information on what future providers who work with neurodiverse clients might want to take into consideration during training and in their practice.

### **Content Analysis**

The significance of the content analysis was to flip the script and discover any similarities or differences between two training curricula — AANE and International Board of Credentialing and Continuing Education Standards in partnership with Autism Society (IBCCES) — in relation to participants’ responses. The analysis produced three themes: (a) elements of the condition to be considered, (b) theory, and (c) practice. Though difficulties in communication was highlighted in the curricula as one of the major findings, it was not cited as a top theme or subtheme by the participants.

Themes that were developed in the analysis of curricula from AANE and IBCCES are described in Table 6. There were three documents with content within the curricula provided to practitioners in training to be certified to work with Asperger’s and or ASD. The documents and the entity that they are associated with are listed below:

Document #1: AANE Skill Building Tools.

Document #2: AANE Understand and Accommodate your Practice.

Document #3: IBCCES 2015 Approaches and Methods.

**Table 4.4.** *Description of Themes.*

<b>Theme name</b>	<b>How many documents contained it</b>	<b>How many times it appeared in total</b>
<b>The elements of the condition to be considered</b>	<b>3</b>	<b>31</b>
Individual differences	3	9
Difficulties in communication	3	5
Difficulties with empathy and understanding other people	2	7
Apologizing	1	2
Expressing feelings	1	2
Anxiety	1	1
Attachment to patterns	1	1
Executive function challenges	1	1
Focus on practical skills and meaningful activities	1	1
Seeing things as unfair	1	1
Sensory issues	1	1
<b>Theory</b>	<b>3</b>	<b>34</b>
Theory of the conditions	3	20
Theoretical rationale and benefits of the activity	2	14
<b>Practice</b>	<b>3</b>	<b>23</b>
Specific procedures and example activities	2	12
How to act around patients and respond to specific actions	2	10
The technology to be used	1	1

### *The Elements of the Condition to be Considered*

Three main themes and several sub-themes emerged, as Table 4 demonstrates. The theme, *elements of the condition to be considered* by practitioners covered aspects of autism/Asperger in the curriculum, in particular, the importance of considering *individual differences* when dealing with Asperger/autism patients. Specifically, when facilitating communication between couples, it is important to consider that “partners with an Asperger profile often communicate differently and perceive communication differently” as shown in Document #2. These differences “may also be a challenge in your communication with your client” at various levels.

When justifying and describing certain activities, three examples of individual differences in various occasions were highlighted in Document #1:

1. This is especially true for partners with an Asperger profile, though some partners with an Asperger profile get very quiet.
2. Depending whether the partner with an Asperger profile is a visual thinker or more mathematical, artistic, literary, or literal, try to first get them to understand the general concept of two perspectives that are both right.
3. This is a good tool if the partner with an Asperger profile is a logical, literal, concrete, math-oriented person.

Finally, encouraging the practitioner to “become familiar with a number of approaches and choose the one or ones ... meeting the needs of the individual” is emphasized in Document #3, which considered these individual differences; several distinct learning styles, including “visually-“, “word-“ or “kinesthetically-based” learners are listed.



All three documents elaborated *difficulties in communication* as a prime issue. Document #1, for example, described activities developed to “help both partners build the skill of dialoguing with each other”, and described an activity that gives “those who usually give no answer, or a one-word answer, the chance to say more”. As a practitioner, the importance of considering difficulties in communication exhibited by some patients was emphasized in Document #2, when addressing patients, who “may take things literally, as criticism, or may not hear or understand something as you intended them to” because of their difficulties in communication. Lastly, Document #3 explained that “individuals with autism” may struggle with verbal interaction and suggested “teaching them an alternative means of communication”.

Documents #1 and #2 also considered *difficulties with empathy and understanding other people* when providing guidelines for practitioners and several exercises were described that aim to “build awareness of another perspective” (Document #2). The difficulties with empathy have been incorporated into the theoretical descriptions of the autism or Asperger’s (ASD) in this study.

Documents #1 and #2 described seven characteristics — *expressing feelings, apologizing, anxiety, attachment to patterns, executive function challenges, seeing things as unfair, and sensory issues*. The importance of *focus on practical skills and meaningful activities* was found in Document #3, which stated that activities need to focus on “engaging the child’s mind rather than just keeping him busy”. Document #3 recommended a focus on “functional, meaningful, and spontaneous behaviours rather than isolated skills that don’t have a purpose in real-life communication, such as touching one’s nose”.

### *Theory of the Conditions*

The reviewed curricula from AANE and IBCCES are described in Table 4 focused on both theory and practice (Table 1), though the general *theory of the conditions* preceded practice and before each activity or exercise, as described in all three documents. The following extracts present some of these statements:

“When people get excited or upset, they tend to get louder without even realizing it. This is especially true for partners with an Asperger profile, though some partners with an Asperger profile get very quiet...” Document #1

“Difficulty with perspective taking, also referred to as lack of theory of mind, is a common Asperger trait and a major contributor to issues for neurodiverse couples. Partners with an Asperger profile often don’t realize that there is another perspective.” Document #1

“Many partners with an Asperger profile struggle with anxiety in general and they can get more anxious when something is new, and they don’t know what to expect.” Document #2

“Many partners with an Asperger profile have sensory issues. They can be either hypo – or hypersensitive to any of their 5 senses. If they are exposed to too much of a sensory experience, they can experience sensory overload” Document #2

“Smell odours, either pleasant or unpleasant, can cause headaches, distraction, or irritation for partners with an Asperger profile. Perfumes, scented deodorants, hair products, even flowers, can distract or annoy.” Document #2

“Interdependence” rather than “independence” is a more appropriate goal for people with autism because independent living suggests doing everything by

yourself and living like a hermit whereas interdependence suggests appropriately depending on others to get needs met.” Document #3

“For individuals with autism, having difficulty learning verbal interaction, research suggests that teaching them an alternative means of communication will speed up the development of verbal interaction if it is going to occur.” Document #3

Document #1 described a “Q-AAA” exercise and explains that “by using this structure that requires exactly 3 sentences for the answer”, the exercise “helps those who usually give no answer, or a one-word answer, the chance to say more”. This was followed by a list of benefits of the exercise or the activity, which is described as *theoretical rationale and benefits of the activity* in Documents #1 and #3. These exercises explained why “many neurodiverse couples do not have reciprocal conversations with each other due to their different communications styles and different expectations of what communication is for”. A similar pattern was presented in Document #1, with as many as 13 descriptions of the theoretical rationale for the listed exercises.

### ***Practice***

The practice portion of the *specific procedures and example activities* provided in Documents #1 and #3 was described as a step-by-step guide for the practitioner:

1. What to do: Show the couple an image of the duck/bunny illustration.
2. Ask each of them which animal they see first. Ask if they both see that there are actually two animals there, both a duck and a bunny.
3. Share with them that most people see one animal first. This animal, i.e., this perspective, is always the one that is going to be easier for them to see.

Practices revolving around *how to act around patients and respond to specific actions* were described in Documents #2 and #3 and were a general and universal set of rules, rather than a description of specific activities, which followed the theoretical description of the condition previously mentioned. For example, Document #3 explained that “when an individual ‘stims’ or engages in repetitive behaviours such as rocking or flapping one’s hands, the best thing to do was to consider the actions as self-regulatory behaviours”. This helps therapists meet the “sensory challenges experienced by individuals with autism”. The characteristics of individual clients related to sensory issues or problems with communication were described in Document #2. Some examples are shown below:

To help reduce anxiety for your clients:

- Use a soft, calm tone.
- Ask clear, concrete questions.
- Allow for longer silences while your client processes.
- Ask clients about their thoughts, if they have difficulty describing their feelings.
- Ask clients about their passions as a way to help them relax in the session.
- Use a consistent structure in all your sessions.
- Preview of what will happen during each session.
- Encourage breaks when you see signs of stress - suggest that they close their eyes, be silent, meditate or breathe deeply, or even leave the office.

If your client is sensitive to touch:

- Do not try to shake your client’s hand, unless they initiate.
- Be direct when discussing the need for personal hygiene on appointment days.

- Be flexible if your client needs to cancel at the last minute due to wind, rain, cold, or heat.
- Be flexible if they want to wear their jacket in your office or take off their shoes.
- If your client is visually sensitive:
  - Use soft or natural lighting.
  - Close shades.
  - Invite the use of sunglasses or hats with visors during the session.
  - Provide several seating options, some facing calm backgrounds.

Finally, another aspect of practice, described only in Document #3 was information about *the technology to be used*, which was described in the document in the following words:

“The best level of assistive technology to use for children with autism are based on the need and situation. It could be any of the following:

- Low-level technology involving the use of simple paper, cardboard, whiteboard, and/or writing utensils such as pencils, pens, and markers.
- Medium-level technology involving the use of simple electronic devices, Voice Output Communication Aids (VOCA) or Language Master.
- High-level technology involving the use of computers, tablets, smartphones, or video cameras.”

### **Chapter Summary**

The experiences, challenges, perceptions, and recommendations of five licensed counselors and other licensed mental health providers who work with neurodiverse adults were analyzed in a thematic fashion along with a detailed content analysis from two educational curricula documents. Thematic data analysis showed that facilitators provided detailed

information pertaining to the experiences and effectiveness of providers who work with neurodiverse clients and identified anticipated challenges and suggestions to be considered for future providers during training and in their practice. A content analysis showed that mental health providers need training in supportive technologies to aid with communication, ability to help clients reduce anxiety, and understand sensory sensitivities. Based on the research questions, interview questions, and themes that supported the purpose of the study, the findings were connected to the theoretical framework based on Social Emotional Learning, Universal Design for Learning, Universal Design, and Social Learning theories, followed by implications of the findings, limitations, and recommendations for future research.

For further review, I thought it would be helpful to incorporate findings into three overriding themes. These themes are addressed in the following order below, knowledge, attitude, and skills. Possessing broad knowledge was a facilitator theme that was supported by 80% of the participants and discussed 13 times. Being open-minded towards new knowledge, having a grasp over a broad range of knowledge, and gaining additional knowledge were reiterated by the participants who understood that knowledge would bestow participants with different perspectives. However, on the flip side, reacting to situations, and not being over reliant on theoretical knowledge were crucial to avoid generalization and biases.

Participants reflected on distinct attitudes and identified openness as an important trait that was essential for counseling. A large proportion of a person's attitude can be attributed to body language, and as a neurodiverse individual who may not be able to decode body language, the experience can be challenging. Therefore, counselors working with such clients must be cognizant of their own attitudes to build a better working relationship. The skills possessed by participants that made their work effective and easy were considered positive characteristics.

Practical skills that engaged a person, rather than keeping them busy, were considered important for communication.

## CHAPTER 5. DISCUSSION

The purpose of this qualitative case study was to explore the experiences, challenges, perceptions, and recommendations of licensed counselors and other licensed mental health providers who worked with neurodiverse adults. Five practitioners who met the criteria of having at least two years of experience with neurodiverse clients with mental health challenges in a private practice or clinical setting were selected. A goal of this study was to provide experiential information that would help counselors or providers address the mental health needs of neurodiverse persons. An additional goal was to highlight the unmet mental health needs of neurodiverse persons in various situations. By providing practitioners with this experiential data, recommendations can be made on how to best address the needs of neurodiverse clients. The theoretical framework that was utilized in this study included the Social Emotional Learning (SEL) theory (Jones et al., 2017), Universal Design for Learning (UDL) (Moore, 2007), Universal Design (UD) (NC State University School of Design, 2001) and Social Learning Theory (Bandura, 2021). Each of these theories was useful for understanding the work of practitioners addressing the needs of neurodiverse clients with mental health concerns.

Growth and development are two of the overarching goals of SEL and is also included in one of the key principles in the UDL approach. SEL and UDL are integral theories that provide insight into how practitioners approach their work with neurodiverse clients whose perspectives are prioritized, honored, and respected. These approaches allow clients to have a voice in choosing the goals of their learning process and the education adapted to their cognitive abilities. The SEL approach values strengths, safe space, and transparency that are vital for demonstrating trustworthiness within the SEL interventions. The UDL approach reminds educators that



neurological differences impact people disparately and a universal “one size fits all” model for knowledge retention simply cannot exist.

This chapter presents a discussion of the study’s findings related to each research question, a review of literature, and the correlation to the theoretical framework. The chapter will conclude with the implications, limitations of the study, and recommendations for future research.

### **Findings by Research Questions**

This section addresses the three research questions and review of the literature. The interview data produced three themes and 27 subthemes that addressed the experiences, challenges, perceptions, and recommendations of licensed mental health providers supporting neurodiverse clients. Findings from this study align with previous literature highlighting SEL and UDL theories and are discussed in the context of each research question.

#### ***Research Question 1***

*What are the experiences of the study participants (licensed counselors and other licensed mental health providers) when working with neurodiverse clients?*

The aim of research question (RQ) 1, and associated sub-questions, was to gather information on the participant’s narrative of experiences assisting their neurodiverse clients. The RQ and sub-questions shown in Table 1 helped understand how participants reflected on their various professional experiences supporting neurodiverse clients, share patterns and observations that occurred, interventions implemented, and resulting outcomes. The participants were also asked to describe their previous experiences using word (s). Two common descriptor themes were derived from RQ 1 — rewarding and ever-evolving experiences — connected by practitioner techniques, skills, and knowledge.

Each participant in the study had a minimum of 10 years of experience supporting neurodiverse clients in various settings — co-occurring diagnosis and comorbidities including depression, attention deficit hyperactivity disorder, family or individual trauma, grief, and anxiety. Participants assessed their clients either formally in a clinical setting or informally in non-clinical private practice. The neurodiverse clients frequently mentioned high anxiety as a chief concern, along with accepting blame, not being understood, confusion, frustration, anger, hurt, and cluelessness. Additionally, many clients encountered anxiety-inducing circumstances, unwarranted social expectations, bullying, family trauma, unstable family situations, and peer pressure.

Each participant detailed the interventions (i.e., narrative model, eye movement desensitization and reprocessing therapy (EMDR), social thinking approach, human development model, curiosity, role reversal, dialectical behavioral therapy, goal oriented, proper screening, de-escalation techniques, and script responses) that were adopted when supporting their clients. Many of the interventions selected by the participants aligned with their personal counseling style. For example, Participant #1 reported having success using cognitive behavioral therapy (CBT) with neurodiverse clients, whereas Participant #2 did not. This showed that client assessment, building trust, a wide knowledgebase, innate understanding on when and how to apply interventions, letting the client lead, and having an open mind were more important than the type of intervention used. The ability to identify individuals as neurodiverse in multiple different settings was an advantage that the participants had and by disclosing that they were licensed mental health providers, they were able to use a number of interventions in their treatment paradigm for neurodiverse clients.

Two participants emphasized having a detailed understanding of oneself and focusing on self-awareness as a critical component of their work with neurodiverse clients. Four participants disclosed that they catered interventions to the client rather than any particular defined diagnosis of neurodiversity. Participant #2 mentioned not broaching the topic of neurodiversity until the client did it and advised on addressing the uniqueness of the individual. Describing the core of her work with clients, Participant #2 identified listening with an open mind, spontaneity, and openness as essential supportive behaviors to achieve success. Open-mindedness was also emphasized by four participants, but problem orientation, goal setting, client-practitioner partnership, being patient, and speaking concretely were more frequently mentioned.

Participants #1 and #2 mentioned using humor as a tool with neurodiverse clients: “When used correctly, humor can be a useful tool. If you don’t know your client and use humor correctly it can be harmful and misinterpreted” (Participant #2). Participant #1 remarked on the distinction among neurodiverse and neurotypical populations noting that humor is different within the neurodiverse population and that understanding their sense of humor takes a shift in perspective. Participants mentioned a lack of available support when talking about how rewarding it feels if they can make a difference and substantially impact a client’s life. The positive impact that appropriate and correct mental health support confers to a neurodiverse person has been documented in research studies (Autism and mental health facts, 2021). Counseling and other mental health support systems can improve daily lives of neurodiverse people if the providers are trained to do so. Untreated mental health concerns can negatively impact a neurodiverse person’s overall satisfaction and achievement. Participants acknowledged that learning from their clients has been the most beneficial educational resource, despite being knowledgeable, educated and had resources as professional practitioners.

## ***Research Question 2***

*What challenges do licensed professional counselors and other licensed mental health providers face when working with neurodiverse clients?*

The aim of RQ 2, and associated sub-questions, was to shed light on the challenges that practitioners faced when supporting neurodiverse clients. The RQ and sub-questions shown in Table 1 helped understand how study participants reflected on distinct attitudes, knowledge, skills, and actions. Analysis of data from the interviews showed the emergence of nine subthemes.

Two of the most repeated challenges were diagnosis and identification and gaps in research and understanding of certain conditions. Participants shared their thoughts on how diagnosis can harm the client and the therapeutic process, their perspectives on not overly identifying with the medical model and emphasized that each client would present differently and therefore, having an attitude of openness was important. Participant #1 stated, “Attitude is very important. You can’t come into this work with an already defined opinion. When the practitioner comes into the relationship as the expert, the relationship does not flourish. Attitude of openness is essential to this work.” One participant elaborated that every client and context are vastly different. “As a provider you have to be open enough to see what is in front of you, understand what you see, let the client lead and adapt. Working with a neurodiverse population requires a vast knowledgebase, focused expertise, and lots of humility because you will be directly challenged. Not every provider can offer that” (Participant #4).

Most participants described inaccurate diagnosis as a challenge. One participant stressed on the large gaps in the understanding of co-occurring conditions or comorbidities associated with neurodiversity and the harm posed to clients because of the use of inconsistent terminology.

Comorbidities such as anxiety and depression symptoms, mood disorders, obsessive-compulsive disorder, extreme anxiety, bipolar disorder, and attention deficit hyperactivity disorder can aggravate social deficits, communication difficulties, repetitive behaviors, or unpredictable cognitive and behavioral responses develop from a wide range of factors including the severity of ASD, environmental factors, and genetics (Autism and mental health facts, 2021). An estimated 70% of children with ASD have at least one mental health disorder, and 41% to 50% have two or more mental health conditions (Autism and mental health facts, 2021). It is therefore not surprising that neurodiverse clients face significant mental health concerns that need to be addressed in a practitioner-led treatment paradigm that incorporates comorbidities as well.

One participant remarked that clients cannot be helped to break through the harmful stereotypes they have absorbed until they build trust with their providers. Self-disclosure, particularly to what extent practitioners should disclose about themselves, was noted as a challenge. The same participant voiced concern that clients can build a rapport with their providers when they are armed with the knowledge of their provider's experience, but this can also hurt the relationship as clients might doubt their provider's abilities or cross healthy boundaries. Most participants disclosed additional knowledge and personal experience having a family member or relationship with someone who identified as neurodiverse, which had a positive impact when supporting neurodiverse clients. Some participants detected neurodiverse patterns more accurately and attributed this to their additional knowledge, resources, and community engagement. Regarding these, most participants noted the advantage of knowing other practitioners who were involved with neurodiverse clients.

Though one participant attributed her training to her ability to focus her skills and navigate difficult situations, another participant asserted that there was insufficient training and

preparation for providers working with neurodiverse clients and wished she could take on more clients. The same participant remarked that counselors could gain additional knowledge through training programs such as the AANE. Indeed, only two participants mentioned having difficult clients as a challenge. With the additional knowledge, training, research, personal experience, and field work, practitioners were able to communicate more effectively about the topic and help demystify the process for supporting neurodiverse clients in a healthy manner. Interestingly, one participant used group work to provide additional support.

One participant stressed on the importance of understanding roles to know the type of services they can and cannot provide for their clients, which leads to empathy that was deemed useful to help their client move past stereotypes.

### ***Research Question 3***

*What is the perceived effectiveness for licensed counselors and other licensed mental health providers when working with neurodiverse clients?*

The aim of RQ 3, and associated sub-questions, was to discover how participants' understanding of their roles affected their ability to successfully work with neurodiverse clients who had mental health concerns.

Responses to RQ 3 and sub-questions posed to the participants shown in Table 1 identified "facilitators" as the overarching theme. Effectiveness, also addressed in RQs 1 and 2, was interpreted differently by each participant. Most participants focused on what they could do to be effective rather than indicators on being effective. By merging participants' understanding of being effective with their experiences, skills, and challenges, 12 subthemes were identified. Five participants attributed their effectiveness to flexibility, responsiveness, open-mindedness, and sensitivity to behavioral patterns. Four participants attributed their effectiveness to having

broad knowledge, being a good and considerate listener who is empathetic and sensitive, unbiased and considerate when understanding individual differences, trained, experienced, genuine, and authentic. One participant believed that self-understanding, knowing how to assess and diagnose, and being patient could be effective. One participant elaborated on the requirements that her clients must express their need for a diagnosis and have substantial investment into the assessment process.

One participant mentioned “being called” to serve as a neurodiverse mental health provider. Another participant touched on her observations role when she said: “Neurodiverse relationships are nothing like neurotypical relationships. The issues look the same but are different and have to be approached differently” (Participant #4). Most participants believed they have to adhere to standard guidelines to be effective. Some participants emphasized that standard guidelines do not exist in this work. “You have to use your ability to think differently, ask questions, apply knowledge and listen to what your clients are saying” (Participant #4).

One participant perceived her effectiveness and stated that “I knew it was effective and needed closure when the relationship could withstand discomfort. When the client was able to sit in discomfort, soothe themselves and while having a static temperament” (Participant #1). In fact, none of the participants considered themselves to be ineffective. Some participants expressed that not all clients and providers were a good fit for one another. “It’s a different therapeutic experience, it’s not for everyone” (Participant #4).

One participant described that after her master’s program, she sought additional training on how to support neurodiverse clients, specifically couples. Lack of time, unmanageable caseloads, and ensuring that they do not overload themselves were limitations that several

participants noted while one pointed to a lack of education and consistency, which were exacerbated by the huge demand for support.

#### ***Research Question 4***

*What are licensed counselors and other mental health provider's recommendations for working with neurodiverse clients?*

The aim of RQ 4, and associated sub-questions, was to identify the recommendations and suggestions made by the participants that would help other professionals who were considering counseling neurodiverse clients.

The responses to RQ 4 and sub-questions posed to the participants shown in Table 1 produced the theme and suggestions for improvement, which comprised six subthemes. Three participants believed that continuous professional development was needed for practitioners to better support neurodiverse clients and two participants expressed the need for more research in this field. Two participants expressed the need for more therapists who are willing and able to support neurodiverse clients with mental health concerns. One participant believed in the need for a more outcome-driven approach to therapy and explained how providers need to master a broad range of knowledge and experience before working with clients. One participant remarked on the need for older mentors who could be looked up to for professional development. One participant expressed the need for a life experience of being in a neurodiverse relationship to be an effective provider. One participant talked about getting her partner certified to work with neurodiverse clients. The remaining participants did not express their personal experiences or related topics.

Most participants identified the need for a collaborative approach when applying a therapeutic approach with neurodiverse clients wherein a provider needs to partner with others in



their lives, in addition to obtaining a well-rounded perspective. One participant voiced concern that in the absence of a complete view of the client's life from multiple vantage points, it was an uphill task to challenge the client who sought the providers for help with their socio-emotional growth. One participant deemed self-care to be an essential component of a provider's work with clients and therefore, providers need to be aware of the extent of their exposure to clients and should make an inventory of their private emotional landscape. Participants expressed the need for additional research and to employ more research-based practices in this area. One participant found an outcome-driven approach to be helpful and effective with the neurodiverse population and suggested that the client should define and create concrete goals and the meaning of success at the beginning and constantly check in on those goals and purposes.

### **Content Analysis**

The aim of content analysis was to identify themes and subthemes from two different professional training curricula, AANE and IBCCES, which consisted of three documents.

Document #1: AANE Skill Building Tools.

Document #2: AANE Understand and Accommodate your Practice.

Document #3: IBCCES 2015 Approaches and Methods.

Content analysis produced three main themes — (a) elements of the condition to be considered, (b) theory, (c) practice — and 11 sub themes. Content analysis found that mental health providers need to have training and experience helping clients reduce anxiety, understand sensory sensitivities, and educate themselves on beneficial technologies that may serve clients. Difficulties in communication was highlighted in the curricula as one of the major findings. On the other hand, the participants did not mention difficulties in communication as a top theme or subtheme.

### **Connecting Findings to Theoretical Framework**

From the responses to the RQs defined in this study, it was evident that the licensed counselors and mental health providers not only functioned according to their professional roles but also exerted themselves much further to continue their education, training, personal experience, and professional credibility. Regardless, as licensed mental health providers, most participants expressed challenges related to being categorized solely as one type of provider because they had multiple qualifications and certifications, including training through AANE.

The experiences and perceptions, described by the providers regarding their roles in various themes when supporting neurodiverse clients, were characterized by similarities and differences that the providers were required to understand. For example, participants' exceptional levels of knowledgebase enabled them to help their clients, who according to the participants, learned to cope in society from other people's actions and they often took on the perspective of others about themselves. Thus, as a provider, the data showed that reversal of masking, camouflaging, and mimicking improved their clients' mental health and re-addressed their relationships. The data also showed that letting clients continue role play and practice expressing socially acceptable behaviors in a safe space helped their clients, improve their situation, and potentially their wellbeing.

The findings revealed that most participants struggled to identify their client with a diagnosis without becoming acquainted with the clients and their stories. Therefore, to help providers shift the paradigm and break harmful self-talk and negative stereotypes that clients develop about themselves, providers are challenged to enter the process with a clean slate devoid of bias or labels addressing the authentic person first.

Supporting clients as they navigate challenges in their lives and work toward autonomy and mental wellbeing remains the goal of counseling for which counselors and other mental health providers have a wide range of theories to choose from. The theoretical framework for this study was based on the SEL, UDL, and Albert Bandura's social learning theories, all of which guide practitioners to implement learning and development processes to build a well-rounded healthy life and contribute to the foundation of new perspectives and acceptance (Coln, 2017; Elias, 2004; Jones et al., 2017).

A theoretical framework to examine the contribution of various interventions on neurodivergent clients based on SEL theory was built on the fundamental understanding of differences in intelligence, which form the core of neurodiversity (Elias, 2004). In accordance with the SEL theory, findings from this study supported the notion that a provider's fundamental understanding of neurodiversity and its cognitive implications and the social emotional needs of the clients enable them to effectively support neurodiverse clients. It was again emphasized through the study's findings that neurodiversity should be treated as a cultural difference and not "a less than" or "more than" condition.

Adaptability, a core concept associated with UD theory (NC State University School of Design, 2001) was manifested in this study, when participants shared their experiences of having to adapt to each client in unique and different ways because each client presented their behaviors differently. By adapting to these differences and their client's needs and making adjustments accordingly, the participants worked cross-culturally.

SEL (Jones et al., 2017) and UD (Meyer et al., 2014) theories were both pivotal in this study because they provided a framework for exploring principles on how providers can shift perspectives in addressing the needs of neurodiverse clients. The SEL theory promotes engaging

in root cause analyses, understanding the individual, and taking the context of the situation into perspective and thus, while the environment is emphasized, the focus is on the individual. At its core, SEL promotes a culture that asks people to be good human beings (CASEL, 2020) because ultimately what matters is how people treat each other. Social learning theory considers how both environment and cognitive factors interact to influence human learning and behavior. It teaches that individuals take actions based on their socialization habits and typically take on the perspective of themselves based on how they are socially categorized.

The goal of UDL is to support individuals who learn differently by providing multiple means to access each brain network that often sets them apart. UDL emphasizes the importance of a safe environment and the need for providers to develop caring relationships with their clients. This was evident in the responses of the participants in this study who expressed that most, if not all, clients experienced co-occurring conditions such as mood disorders, obsessive-compulsive disorder, extreme anxiety, bipolar disorder, and attention deficit hyperactivity disorder, which was a factor that helped their clients receive social emotional support and providing safe space for development. Based on these data, SEL and UD were pivotal in this study.

The combination of SEL, UDL and social learning theories was significant in this study because they affirmed the findings of this study, which revealed that the providers are at the root of social emotional awareness, building safe and adaptable spaces, and acceptance of differences. Despite differences in approach between the participants, each participant was individually determined to address the needs of neurodiverse clients using the best tools they had.

### **Limitations**

There were limitations within this study that should be considered when analyzing the findings. First, the sample size of five participants prevented generalization of the findings and therefore, a larger more diverse sample size may have resulted in more variability among responses. Second, participants were from the United States Southeast and exhibited a lack of racial, cultural and gender diversity. Third, several other experiences, perceptions, and practices of the participants were not reflected in this study, which would have added to the comprehensiveness of the analysis. Fourth, the study showed participant bias, which refers to participant responses to questions that are based on what the participant believes is the politically correct answer or the “right” answer. To limit participant bias, the researcher (CLM) attempted to establish a rapport with each interviewee to allow transparency and honesty in their responses. Fifth, the study showed researcher bias, which was minimized by CLM who continually reevaluated codes and themes with the coding partner (AA), who also helped to ensure the information provided was not solely analyzed by CLM. CLM also reflected during each portion of the study to ensure that participant and research bias did not interfere with data collection or analysis. In some cases, upon participant’s request, member checking was performed so that the participant could review the interview notes to ensure accuracy. Lastly, the researcher–participant connection may have appeared to compromise the study because CLM had preexisting relationships with some of the participants through training and other forms of professional development. To manage those relationships, CLM selected a group of participants from various mental health professions and exhibited professionalism by having a formal dialogue and abstaining from leisure discussions as well as reviewing consent details before and confidentially measures before and after the interviews. CLM also self-reflected to ensure that

there was no preferential treatment throughout the study. Importantly, the participants were not coerced to participate in this study and could voluntarily terminate the interview any time.

### **Research Implications**

The findings from this study indicated that it is vital for practitioners to become knowledgeable about neurodiversity and all its forms, to collaborate and with other support systems in the community, and to be aware of sensory sensitivities, personal biases, and cultural differences.

Providers are challenged to use the data obtained in this study on their experiences, perceptions, and practices to address the needs of neurodiverse persons with mental health concerns and to combat the increasingly unmet needs of people who are neurologically wired differently.

Because the biggest gap in meeting the needs of neurodiverse adults is due to their camouflaging and masking, which results in mental health needs that often go unseen, practitioners and providers should advocate for better or additional training, taking courses for professional development, and preparing to meet these challenges. Currently, there are only two training-related curricula for mental health providers and participants in this study with additional and broader knowledge or training felt confident when working with their clients and were better equipped to assist those with mental health concerns.

### **Recommendations for Future Research**

The findings from this study corroborated previous research showing patients with ASD also have a significantly higher risk of developing a mental health disorder, known as a comorbid or co-occurring disorder (Autism and mental health facts, 2021). Considering that many people with ASD are not diagnosed until later in life or are never diagnosed, it is plausible that adults

who have ASD or neurodiverse traits are likely experiencing mental health considerations that are not maintained and go without support. Therefore, treatment for co-occurring disorders for patients on the autism spectrum can significantly reduce their mental health symptoms and greatly increase overall functioning and quality of life (Autism and mental health facts, 2021).

There is a preponderance of evidence indicating the abolition of the medical model that pathologizes neurodiverse individuals and favor the use of SEL, UDL, and social learning theories to improve their daily lives. In this regard, the qualifications required for practitioners to address the mental health concerns of neurodiverse adults have not been clearly identified. Therefore, it is imperative to define qualifications for practice and best practice protocols that will further advance therapeutic harm-free interventions, meet the gaps in these interventions, and address the lack of support available to the neurodiverse population. It is recommended that research studies on practitioners be continued and interventions, practices, and strategies to meet the needs of neurodiverse adults be encouraged.

There was support from the participants for additional education and training, a wide knowledgebase, and standards to meet the needs of the neurodiverse population and to increase their own effectiveness when interacting with their clients. Therefore, the findings from this study can be used to further examine more specific training, courses, and additional information that could benefit licensed practitioners when addressing the needs of the neurodiverse population.

The findings from this study revealed that participants were conflicted on the diagnosis of their clients and the common stigma attached with the diagnosis, which warrant further studies, particularly on those with of high functioning ASD and females on the spectrum. Research is

needed on whether camouflaging, gender identification, and sexuality impact the effectiveness of interventions that providers use to support neurodiverse adults with mental health concerns.

### **Conclusion**

Licensed mental health practitioners who work with the neurodivergent population have vast experiential knowledge that can decode inconsistent terminology, understand the client's context, bridge gaps in understanding, reduce anxiety, create awareness of sensory sensitivities, build supportive technologies, and build trust to help break down stereotypes. A collaborative effort among practitioners, family, teachers, advisors, and mentors when addressing the therapeutic needs of neurodiverse adults is warranted to better understand behavioral patterns, which should be complemented with additional research, professional development opportunities, and training on outcome-driven approaches.

This work provides deeper insights from a range of providers who work with neurodiverse clients. While this study unravels several avenues on furthering research in neurodiversity, the strength and value of this work lies in providing concrete data obtained from counselors and other mental health providers that support the social model, which influences modern thinking about neurological differences. The social model, which distinguishes between disability and impairment, argues that an individual can have impairments, but it is often the socio-political barriers of society that disable them by creating inhospitable environments. This study brings to the forefront the case for abolishing the medical model, which disadvantages neurodiverse individuals.

Ethical considerations were mediated throughout this research. While being fully aware of ethical considerations for research interviews, attention was given to the principles related to ensure no harm or loss of standing to the participant. This was satisfied by the use of informed



consent. While interviewing the participants, I was aware that extracting information using a semi-structured interview could elicit deeper response from the participants and therefore, I have an ethical responsibility to ensure that participants were aware of the possibility of its occurrence. Thus, I was aware of what is helpful and what potentially can cause harm.

Whilst it is already known that neurodiversity examined using a social model lens calls for inclusion and respect for people whose brains work in atypical ways, irrespective of type of neurology, I offer a new perspective through clinical knowledge, research and more importantly, from hands-on and lived experience. Since trained counselors capable of working with neurodiverse individuals are in short supply, my study aims to understand from the perspective of these counselors and other mental health providers, how to best serve neurodiverse clients. The combination of SEL, UDL and social learning theories was significant in this study because they affirmed the findings of this study, which revealed that the providers are at the root of social-emotional awareness, building safe and adaptable spaces, and acceptance of differences.

There must be a paradigm shift in the counseling profession when working with neurodiverse clients who face significant challenges and barriers in various domains. Using a questionnaire that allowed for a broad and detailed inquiry, the thematic analysis in this study identified and highlighted key tangible and abstract features that counselors can imbibe so that their neurodiverse clients can overcome the detrimental effects of stigma and stereotypes.

The power of counselors and other mental health providers as change agents to advocate for the empowerment of neurodiverse people showing acceptance rather than stigma, should not be underestimated, despite many challenges such as working in an environment with shifting perspectives, understanding limitations, and bridging the gap between neurotypical and neurodiverse cultures. Future studies are recommended to examine how training and education

can help practitioners understand the concepts of how they can better support and advocate for their clients. The qualitative case study explored the experiences, challenges, perceptions, and recommendations of licensed counselors and other licensed mental health providers who work with neurodiverse adults. This study has highlighted findings that will contribute to the continuation of research on this topic, and I hope will spark ideas for research in this field.

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**APPENDICES**

## **Appendix A. Pilot Study: Semi Structured Interview Questions**

Information discussed in addition to procedures, steps, confidentiality and goals prior to the interview. Purpose: Understand the impact of digital communication within a neurodiverse population. I would like to consider patterns, effectiveness, outcomes, interests, and frustrations levels when communicating about a project or goal-oriented task using any form of digital communication. Please feel free to answer ANY or ALL questions, if you feel uncomfortable in any way please let me know and we can pass on a question or terminate the interview anytime.

### ***Semi Structured Interview Questions:***

Initial: Do you consider yourself Neurodiverse (ADHD, Aspergers, Autism, ASC, on a Spectrum, Dyspraxia, Dyslexia, Tourette Syndrome, Acquired Brain Injury, or Other)?

- #1 What is your understanding or interpretation of “digital communication” methods?
- #2 Do you understand the goal of the study? Please explain any questions, concerns or feelings you have.
- #3 Does digital communication (Example: Zoom, Email, Video, Phone, Discord, or Slack) play any part in your day to day life? If so, how? If not, why?
- #4 If you do use digital communication applications, which ones do you use on a daily basis for work-related tasks, school projects or any other goal-oriented project?
- #5 How do you see these digital applications impacting your communication effectiveness?
- #6 How do you see these digital applications impacting your motivation levels when completing any goal-oriented project?

- #7 How do you see these digital applications impacting your work productivity levels?
- #8 How does using digital applications for communication affect your anxiety level?
- #9 How does the flexibility (asynchronistic) style of chat applications affect your communication?
- #10 How do digital applications affect your confidence when communicating?
- #11 Lastly, a follow-up on any loose ended comments or thoughts.

## **Appendix B. Pilot Study: Semi Structured Interview Questions Continuation**

### ***Demographic Questions***

- #1 Do you consider yourself to be a person with autism spectrum condition or Asperger's?
- Answer choice: Yes, No
- #2 If no, how do you identify?

### ***Concept of Neurodiversity***

- #1 Are you aware of the neurodiversity movement? If yes, what is the neurodiversity movement in your words?
- #2 Would you classify yourself as part of a neurodiverse or neurodivergent population?

### ***Fluidity of Communication***

- #1 What strengths do you bring to a relationship?
- #2 What weaknesses do you bring to a relationship?
- #3 In what ways do you communicate to others most often?
- #4 Can you name social norms that are difficult to operate under?
- #5 What were your methods of learning social norms?
- #6 How might knowing your preferred communication style be useful to you in social situations?
- #7 What is the dominant communication style of groups you have grown up with or interact most with now?
- #8 Under what circumstances are you most comfortable communicating?
- #9 What communication makes you feel excluded?
- #10 What communication makes you feel included?

***Low Context***

Good communication is precise, simple and clear. Messages are expressed and understood at face value. Repetition is appreciated if it helps clarify the communication.

***High Context***

Good communication is sophisticated, nuanced, and layered. Messages are both spoken and read between the lines. Messages are often implied but not plainly expressed.

**Low Context****High Context*****Interacting with other people***

- #1 There are commonly some barriers when communicating with other people. Biases, lack of experiences, bad experiences, differences in meaning, assumption of intent, awkwardness etc. may get in the way of communicating with others.
- #2 There are commonly some barriers when communicating with other people, what would you contribute to those barriers?
- #3 In your opinion, is there anything people can do to better understand each other and remove those barriers?
- #4 What are your preferred communication styles that could interfere with your ability to listen to others?

***Closing Question***

- #1 Any other issues you want to mention which we have not yet covered?

**Appendix C. Pilot Study: Concepts**

## Major Categories of Communication Attempts

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<b>Major Categories</b>	<b>Associated Concepts</b>
ND Person	Flooded, Disabled, Wrong, Mistake, Isolated, Meltdowns, Trying Hard, Expert
Feelings	Anxiety, Worry, Scared, Avoided, Lots of Fear, Triggered
Behaviors	Offending, Apologizing, Harsh, Wrong, Unheard, Misunderstood
Impact	Vulnerable, Trying, Tricky Situations, Unfair, Frustrated, Difficulty with Confrontation

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### Appendix D. Major Codes Associated with Communication Attempts

<b>Code</b>	<b>Data Supporting Code</b>	<b>Researchers Interpretation</b>
Resistance	<ul style="list-style-type: none"> <li>• “I can mask and am able to blend in”</li> <li>• “Having to balance being part of the NT society”</li> <li>• “ND people have to do ¾ of the work just to interact with NT people”</li> <li>• “If they would even ask”</li> </ul>	A chasm has been identified, now it’s up to society how we bridge the space. Eventually the table will turn, and ND people’s skills will be in such demand that society will have to change to accommodate. Time will tell how long that takes.
Defeatism	<ul style="list-style-type: none"> <li>• “Taken for granted by NTs”</li> <li>• “It just hurts”</li> <li>• “I don’t like it”</li> <li>• “I assume it’s something that I have done wrong”</li> </ul>	The feelings are intense. They feel isolating and awful. While there are expressions of defeat people are starting to take a stand for their own needs and define what that looks like in an NT-dominated world.

### Appendix E.

**Please feel free to answer ANY or ALL questions, if you feel uncomfortable in any way please let me know and we can pass on a question or terminate the interview anytime.**

- 1) Do you consider yourself Neurodiversity (ADHD, Asperger's, Autism, ASC, on a Spectrum, Dyspraxia, Dyslexia, Tourette Syndrome, Acquired Brain Injury, or Other)?
- 2) What is your understanding or interpretation of “digital communication” methods?
- 3) Do you understand the goal of the study? Please explain any questions, concerns or feelings you have.
- 4) Does digital communication (Example: Zoom, Email, Video, Phone, Discord, or Slack) play any part in your day to day life? If so, how? If not, why?
- 5) If you do use digital communication applications, which ones do you use on a daily basis for work-related tasks, school projects or any other goal-oriented project?
- 6) How do you see these digital applications impacting your communication effectiveness?
- 7) How do you see these digital applications impacting your motivation levels when completing any goal-oriented project?
- 8) How do you see these digital applications impacting your work productivity levels?
- 9) How does using digital applications for communication affect your anxiety level?
- 10) How does the flexibility (asynchronistic) style of chat applications affect your communication?
- 11) How do digital applications affect your confidence when communicating?
- 12) Lastly, a follow-up on any loose-ended comments or thoughts.



## Appendix F. Pilot Study Document Eligibility Protocol

Procedure Type	Eligibility Protocol
Documents Collected & Used	<ul style="list-style-type: none"> <li>• A Google search of blog post written by people with ASD about communication preferences and experiences.</li> <li>• Hope to get at least 3 of these blog posts.</li> <li>• I have run into many of these blog postings in the past, so I don't believe these will be hard to find.</li> </ul>
Are the Documents Useful?	<ul style="list-style-type: none"> <li>• Do the blog postings capture the person's true experience?</li> <li>• Does the blog posting capture the essence of what the person is saying?</li> <li>• How relevant are the blog posts and are they applicable to the research questions?</li> </ul>
Are the Documents Authentic?	<ul style="list-style-type: none"> <li>• Check the source of the person posting, looks at the comments sections too.</li> <li>• Check to see if the blogger has identified as having ASD.</li> <li>• Check for the essence of the blog posting and if it seems like it is a true representation of the person's thoughts. Do they align with the project?</li> <li>• Consider how these documents will be used and if there would be any risk or harm.</li> </ul>
Questions to Consider	<ul style="list-style-type: none"> <li>• How are the person's thoughts defined?</li> <li>• What are the perceived outcomes and results?</li> <li>• In what ways does the blogger interact with digital communication methods?</li> </ul>
Coding/Themes	<ul style="list-style-type: none"> <li>• <b>Experiences:</b> how is the experience defined?</li> <li>• <b>Activity:</b> how often does the person interact and communicate?</li> <li>• <b>Availability:</b> how available and frequent are the digital sources?</li> <li>• <b>Impact:</b> how do communications impact a person personally and professionally?</li> <li>• <b>Feelings:</b> how does the person feel and expresses themselves?</li> </ul>

### Appendix G. Pilot Study Code Book

Code	Definition	Example Quotation (best quotation)
Neurology	Persons with ASC, Asperger's, ASD. Disability rights movement. Different neurology's. Autistic. Neurodivergent. Cultural. Just understood. Autistic culture. I am on the spectrum.	<p>“Even those without neurological disorders tend to struggle communicating with other people.”</p> <p>“There is a lot of social push around the neurodiversity movement, but it hasn't taken off with a lot of momentum.”</p> <p>“Not everyone on the spectrum will be like me.”</p> <p>“Neurodiverse movement is struggling to gain speed because people don't like to accept differences.”</p>
Self-understanding	<p>Classify as part of the neurodivergent population.</p> <p>Growing up with Autism. Private person. Most comfortable. Hard to grab people's attention in a large group. Pretty standard. Good person. Not always understanding. Time to process. Analytical problem-solving skill. New situations terrify me. Introverted. Weird. Like including people.</p>	<p>“Growing up with Autism has made me learn more about my condition to where I am happy to say that I have it.”</p> <p>“one key social norm that I stick to is that I always try to stick is to be in a small circle of people that I call friends rather than expose myself to thousands through things like social media.”</p> <p>“I'm most comfortable when I have nothing else to do.”</p> <p>“Large group settings make me feel excluded.”</p> <p>“I'm pretty standard when it comes to communication styles.”</p> <p>“It's kind of scary to say this but I think I'm a good person.”</p> <p>“When I have time to process what people are saying or I'm not too exhausted from other interactions.”</p> <p>“Putting on my best normal.”</p> <p>“It would be foolish to say no, to identify as something and then say no, I'm not different.”</p> <p>“I don't judge people due to skin color, money, or what they look like.”</p> <p>“When I was young, I was really weird and I still really am.”</p> <p>“Hard to listen to others.”</p>
Needs	Small circle of people.	<p>“If you have a difficulty in life, you have to be that much more aware.”</p>

Code	Definition	Example Quotation (best quotation)
Wants	Make good first impression. Simple. Clear. Straight to the point. One-on-one. Intellect. Complex. Details.	“I have always been someone who wants to make a good first impression.”
How to communicate	Start small talk. Ice breaker kind of questions. Gradually move up. Friendly manner. Instant messenger. Email. Private person. Instant messenger has grown on me. Skype. Discord. Facebook. Large groups feel excluding. Sticking with a topic and not abruptly have something else to talk about. Range of understanding. IM makes it hard to understand. Body language is hard to understand. Texting. Social media. Emojis. Lack of eye contact. Technology helps people who aren't visual to emotions. Movies. Books. TV. Face to face. Groups. Offer perspective. Language barrier. Misinterpreted and interpreting wrong is a struggle. Hate talking on phone. Don't like new forms of communication. Restart multiple times. Text people. Text to schedule. Social norms. Communication is hard.	“Talking about things that come at the right moment (i.e. hobbies, education, etc.)” “I try to approach in a friendly manner.” “The bigger picture I sense for not only people like myself is that being yourself and how you converse naturally are the best things in any social situation.” “Text messages, email, or even in person are the norm for me and my friends.” “The only caveat about this is sticking with a topic to talk about and then just abruptly have nothing else to talk about.” “Body language sometimes trips me up.” “People who crypt what their saying without context can confuse me in response that could lead to backtracking my response.” “More misunderstandings due to different communication styles.” “Straightforward and decent human interactions is what I prefer.”

Code	Definition	Example Quotation (best quotation)
Perspective taking	Try not to corrupt myself. Same rights as anybody else. Less frustrating. Offer perspective. Different perspective than others. Challenge people's way of thinking. Comfort.	<p>"I try not to corrupt myself in other people's hazardous social norms." "I can offer a very bare bone advice in a unique perspective." "I don't like to be around certain people; this is part of being on the spectrum."</p> <p>"Remove barriers, to remove barriers those barriers of hate and dislike towards difference." "No one wants to remove barriers or accept other people." "It's hard to listen to someone when you don't understand them."</p>
Emotional Regulation	Large groups. 5+ people. Small groups. One-on-ones or less than 3 people. Feel. Overload in large crowds. Excluded. Included.	<p>"Large groups of people make me feel excluded." "This makes me feel left out of the conversation and ignored likely." "Smaller group settings make me feel more included in communicating." "In person exclusion would hurt the most."</p>
Soothing skills	People understand. Too much. Not push outside my comfort zone.	

Code	Definition	Example Quotation (best quotation)
Willingness to understand	I am aware. Learn from friends. Learned a lot from other people. Good first impression. Better understand each other barriers. Better understand. Barriers. Observing successful people. Direct. Actively listen to the other person. Encouraged to be direct. Say what you mean. Mistakes are more forgiven. No name for it. See people as people. Sympathy. Understand others. See good in others. Try. Remove barriers.	“I am aware of the neurodiversity movement. To educate people on neurological disorders.” “How society can work with these conditions.” “I’ve had the pleasure to make friends with other people on the spectrum and make friends.” “I learned most of my social norms from other people like my family, friends, therapists that worked with me in my younger years.” “To better understand the struggle everyone faces it can help those like me with autism realize that barriers are normal and does not make me any different than my peers.” “I have sympathy for others because I understand the struggle and I can see where others might be struggling.” “I have a good understanding of what awkward people go through, so I understand.”
Operating	Treat me well. Private. Stick with people I know. Formula. My own norms. My own morals. Stuck with. Pattern. Felt most comfortable. Making a good impression. Upmost honesty. Clarify anything that didn’t make sense. Clarify anything that didn’t sound right in context. Large groups feel excluding. Sticking with a topic. Extra careful. I really have to think about stuff. Problem-solving skills. Try so hard. Do different than other people. Dislike phone. Do something, throw self in. Not rude.	“As long as someone treats me well, I treat them well too.” “I’m pretty private when it comes to relationships.” “Stick with people I know rather than people I don’t know.” “I will usually reach out to friends to see how they are doing, if they wanted to do something with me, or just have a conversation about something.” “When people don’t know me that’s where it’s hard.” “When you know your flaws and weaknesses you can compensate for them.” “People like to be comfortable.”

Code	Definition	Example Quotation (best quotation)
Different way of thinking	Removing barriers. Impossible. Neurology's. Don't say what they mean. Don't mean what they say. Different values. Different morals. People don't like to accept differences. Assume they interact similar. Suck at reading tone. Categorizing.	"having different neurologys being respected." "I think people don't mean what they say or say what they mean." "People hate others because they are different." "People tend to not be accepting to others who are different."
Different way of operating and sequencing	These people are normal. Function differently. Not any different than my peers. ND to ND is less frustrating. Say what I want to say and be done. Hard to respect differences. People don't like to accept differences. Rulebook. Memorize rules. Trial and error. Memorize. Series conversation need one-on-one.	The movement should state these people are normal, just "like society, but function differently, again, just like society." "It's easy to communicate in your native language." "I keep this rulebook in my head, it's kind of like working out of muscle memory."
Adaptability	Limit abilities. Working around barriers. Understand. More sensitive. More accommodating better relationships. People can understand. Nuances are hard. Grin and bear it. Practice. Hard to listen.	"It should be treated as something that doesn't necessarily limit one's abilities, talents, and strengths." "I can sometimes communicate in person if something else is going on like some kind of entertainment." "If I, for instance, struggle to understand something or can't answer a question, I would usually ask for clarification or have them repeat the question for me in a way that I can understand." "Today, I feel that people have become more sensitive to certain items that I have to be extra careful with what I say in response to not upset or sour other parties."

<b>Code</b>	<b>Definition</b>	<b>Example Quotation (best quotation)</b>
Low Context	Good communication is precise, simple and clear. Messages are expressed and understood at face value. Repetition is appreciated if it helps clarify the communication.	Ranking: 4, lean towards low.
High Context	Good communication is sophisticated, nuanced, and layered. Messages are both spoken and read between the lines. Messages are often implied but not plainly expressed.	Ranking: 2 Ranking: 0
Relationships	Social relationships. Help everyone. People can understand. Interpersonal. Communication to someone close. Weaknesses. Empathy tough. I can sympathize. Intellect is important.	“I am willing to support my friends and am incredibly loyal.” “Empathy is tough for me.” “I want to make friends early on.”
Middle Context	Interactions aren’t simple. Too nuanced I won’t understand. Too vague really hard to understand.	Ranking 5 half-way in between. 2 or 3.

**Appendix H. Recruitment Email to Licensed Counselors  
and Licensed Mental Health Providers**

Dear \_\_\_\_\_ (licensed counselor or other licensed mental health provider),

I am currently working on my PhD dissertation at North Carolina State University under the guidance of Dr. Stanley Baker. The purpose of this qualitative case study is to explore the experiences, challenges, perceptions, and recommendations of professionals who work with neurodiverse adults.

As a licensed clinical mental health counselor or other licensed mental health provider working with neurodiverse adults, you have been invited to participate in this qualitative case study. If you agree to participate, you will be asked to:

1. Complete an online consent form and demographic survey, which is expected to take approximately 15 to 20 minutes to complete.
2. Participate in an individual, online (via Zoom), audio-only interview, which is expected to take between 45 and 90 minutes to complete. The interview will be audio-recorded, transcribed, and saved under a pseudonym in a secure Google Drive. The demographic surveys will be saved under the pseudonym attached to your audio recording.
3. The total duration of your participation in this study will be between 60 and 110 minutes. The interview will take place when it is most convenient for your schedule.

A \$35 gift card will be emailed to all participants in the research study.

If you would like to participate or you have any additional questions regarding the research study, please email me ([clmitran@ncsu.edu](mailto:clmitran@ncsu.edu)). Upon acceptance, you will receive a



secure link to the consent form, demographic survey and a Doodle link to schedule a date and time for the interview.

Thank you for consideration and I look forward to hearing from you.

Sincerely,

Carrie L. Mitran

### **Appendix I. Interview Scheduling and Reminder Template Emails**

You are scheduled for day, date, and time. As a reminder, this meeting will take between 45 and 110 minutes and be audio recorded through the NCSU secure Zoom account. Below you are receiving a secure link to the consent form, demographic survey and secure Zoom meeting link and password. As participant, you will be asked to:

1. Complete an online consent form and demographic survey, which is expected to take approximately 15 to 20 minutes to complete.
2. Participate in an individual, online (via Zoom), audio-only interview, which is expected to take between 45 and 90 minutes to complete. The interview will be audio-recorded, transcribed, and saved under a pseudonym in a secure Google Drive. The demographic survey will be saved under the pseudonym attached to your audio recording.

The total duration of your participation in this study will be between 60 and 110 minutes. A \$35 gift card will be emailed to all participants in the research study who fully complete all research activities.

Here is your secure link to the online consent form and demographic survey.

Here is your secure Zoom link with a password for the date and time of the interview listed above. Please login prior to the start of the interview by clicking on the link provided, then enter in your unique password.

If you need quick technical support or troubleshooting, please call me at 984.292.9120. I look forward to our conversation together. If you have any additional questions regarding the research study or need technical support, please email me ([clmitran@ncsu.edu](mailto:clmitran@ncsu.edu)).

Thank you, Carrie L. Mitran

### **Interview Reminder Email**

You are scheduled for day, date, and time. As a reminder, this meeting will take between 45 and 110 minutes and be audio recorded through the NCSU secure Zoom account. Below you are receiving a secure link to the consent form, demographic survey and secure Zoom meeting link and password. As participant, you will be asked to:

1. Complete an online consent form and demographic survey, which is expected to take approximately 15 to 20 minutes to complete.
2. Participate in an individual, online (via Zoom), audio-only interview, which is expected to take between 45 and 90 minutes to complete. The interview will be audio-recorded, transcribed, and saved under a pseudonym in a secure Google Drive. The demographic surveys will be saved under the pseudonym attached to your audio recording.

The total duration of your participation in this study will be between 60 and 110 minutes. A \$35 gift card will be emailed to all participants in the research study who fully complete all research activities.

Here is your secure link to the consent form and demographic survey.

Here is your secure Zoom link with a password for the date and time of the interview listed above. Please login prior to the start of the interview by clicking on the link provided, then enter in your unique password.

If you need quick technical support or troubleshooting, please call me at 984.292.9120.

I look forward to our conversation together. If you have any additional questions regarding the research study or need technical support, please email me ([clmitran@ncsu.edu](mailto:clmitran@ncsu.edu)).

Thank you, Carrie L. Mitran

## **Appendix J. Informed Consent**

### **North Carolina State University**

**Title of Study:** A Paradigm Shift: Examining the Experiences, Challenges, Perceptions, and Recommendations of licensed counselors and other licensed mental health providers who work with neurodiverse adults (**eIRB# 24047**)

**Principal Investigator:** Carrie L. Mitran, [clmitran@ncsu.edu](mailto:clmitran@ncsu.edu), 984.292.9120

**Faculty Point of Contact:** Dr. Stanley Baker, [sbaker@ncsu.edu](mailto:sbaker@ncsu.edu), 919.515.6360

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#### ***What should I know about this research study?***

You are invited to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate, and to stop participating at any time without penalty. The purpose of this research study is to gain a better understanding of the experiences, challenges, perceptions, and recommendations of licensed counselors and other licensed mental health providers who work with neurodiverse adults. We will do this through audio-recorded, personal, remote interviews.

You are not guaranteed any personal benefits from being in this study. Research studies also may pose risks to those who participate. You may want to participate in this research because you want to contribute information for future providers working with neurodiverse clients and help improve client's experiences with trained practitioners. You may not want to participate in this research because the nature of qualitative research is re-identifiable and could be an employment or financial risk to you and your practice.

In this consent form, you will find details about the research in which you are being asked to participate. A copy of this consent form will be provided to you through a secure Google Drive. If any information is unclear, you have the right to ask the Principal Investigator

(PI)/interviewer for additional information at any time. If you have any questions, please contact the PI or faculty contact named above or the North Carolina State University (NCSU) Institutional Review Board (IRB) office (contact information is provided below).

***What is the purpose of this study?***

The purpose of this qualitative case study is to explore the experiences, challenges, perceptions, and recommendations of licensed counselors and other licensed mental health providers who work with neurodiverse adults.

***Am I eligible to be a participant in this study?***

There will be approximately 3 -10 participants in this study. In order to be a participant in this study, you must be a licensed clinical mental health counselor or a licensed mental health provider with previous training in working with neurodiverse clients. You must also have at least two years of experience working with neurodiverse clients. You must live and practice in the United States.

You may not participate in this study if you do not meet any of the criteria listed above or don't agree to be audio-recorded for research purposes.

Participants are 18 years of age or older, Licensed Clinical Mental Health Counselor, completed professional training for working with neurodiverse clients, at least two years of experience working with neurodiverse clients, and live in and practice in the United States. Those who don't meet the inclusion criteria or don't agree to be audio-recorded are excluded.

***What will happen if I take part in the study?***

If you agree to participate in this study, you will be asked to do all of the following:

1. Complete this consent form and a demographic survey right after the consent form, which should take about 15 to 20 minutes of your time.

2. Participate in an individual, private, online interview that will be audio-recorded and conducted outside of the workplace and your normal working hours at a time and date that is most convenient for you. The PI of the study, Carrie L. Mitran, will be interviewing you. Throughout the interview, the PI will review the conversation and may pose questions such as, did I hear this correctly?; what I heard was\_\_\_\_\_, did I hear that correctly? The interview is expected to last between 45 and 110 minutes.

The total time that you will be participating in this study is 60 and 110 minutes.

### ***Audio recording***

As part of this research, you must consent to be audio recorded. If you would not like to be audio recorded, you may not participate in this research. As a participant you should know the following:

1. The services of a transcription provider will be used to transcribe the interview recordings. The transcription provider is a trusted source that uses encrypted files and maintains a redundant infrastructure with 99.9% uptime with a 24/7 security team. Additionally, a signed confidentiality contract will be completed prior to provider/research engagement.
2. Once the audio recordings are completed the file will be saved with a pseudonym to the researcher's secure password protected NCSU Zoom account and transcribed within 24-hour period. Once the transcription has been completed the audio file will be properly and securely discarded.

### ***Risks and Benefits***

There is minimal risk associated with this research. With that said, there are still risks associated with this research including risks to the participant's employment and financial status.

Because of the nature of their profession, several potential risks arising from loss of confidentiality and privacy protection cannot be ruled out. These include risks to their reputation and livelihood if they are perceived as perpetuating unintentional harm. Patients and employers could choose to terminate their relationship with the licensed counselors and other licensed mental health practitioners. Thus, the harm to the practitioner could be significant. The main risk in this research is re-identification due to the small N and the robust qualitative data being collected.

The inherently safe protocols built at NCSU will ensure that such risks are mitigated as much as possible during collecting, storing, and reporting research data. All identified risks to participants have been communicated via the consent process and planned for through research design, data security, and management.

There are no direct benefits for your participation in this research study. An indirect benefit for participation in this study is contribution to the literature as well as the ability for others to learn from your research data to assist and better support neurodiverse clients. This could help improve practice and address challenges within their work and for practitioners who read the data analysis of my dissertation.

***Right to withdraw your participation***

You can stop participating in this study at any time for any reason. In order to stop your participation, please contact the PI/interviewer, Carrie L. Mitran, at [carrie.mitran@ncsu.edu](mailto:carrie.mitran@ncsu.edu). You can also contact the faculty advisor for this protocol, Dr. Stanley Baker, at [sbaker@ncsu.edu](mailto:sbaker@ncsu.edu) and 919-515-6360. If you choose to withdraw your consent and to stop participating in this research, you can expect that the researcher(s) will redact your data from their data set, securely destroy

your data, and prevent future uses of your data for research purposes wherever possible. This is possible in some, but not all, cases.

### ***Confidentiality, personal privacy, and data management***

Trust is the foundation of the participant/researcher relationship. Much of that principle of trust is tied to keeping your information private and in the manner that we have described to you in this form. The information that you share with us will be held in confidence to the fullest extent allowed by law.

Protecting your privacy as related to this research is of utmost importance to us. There are very rare circumstances related to confidentiality where we may have to share information about you. Your information collected in this research study could be reviewed by representatives of the University, research sponsors, or government agencies (for example, the FDA) for purposes such as quality control or safety. In other cases, we must report instances in which imminent harm could come to you or others.

How we manage, protect, and share your data are the principal ways that we protect your personal privacy. Data that will be shared with others about you will be re-identifiable and identifiable.

**Re-identifiable.** Re-identifiable data is information that we can identify you indirectly because of our access to information, role, skills, combination of information, and/or use of technology. This may also mean that in published reports others could identify you from what is reported, for example, if a story you tell us is very specific. If your data is re-identifiable, we will report it in such a way that you are not directly identified in reports. Based on how we need to share the data, we cannot remove details from the report that would protect your identity from



ever being figured out. This means that others may be able to re-identify from the information reported from this research.

**Identifiable.** Identifiable data is information you that directly links you to the data. This includes, but is not limited to, your name, e-mail, phone number, or other details that makes you easily recognizable to us and others. When we say identifiable data, what we mean here is that your email will be shared in order for you to receive your gift card compensation and that your audio-recorded interview responses \will be analyzed by a coding team consisting of two individuals:

1. the PI/interviewer, who is a National Certified Counselor, a Licensed Clinical Mental Health Counselor Associate, an Advanced Certified Autism Specialist and a counseling doctoral candidate;
2. a coding partner who is an advanced qualitative researcher, educator and NCSU doctoral student with secure access to portions of transcriptions that are saved under a unique pseudonym. Once the coding has been completed, access to transcriptions stored in Google Drive will be denied to the second coder.

### ***Future use of your research data***

Your information, even with identifiers removed, will not be stored or distributed for future research studies.

### ***Compensation***

For participating in this study you will receive a \$35 gift card. If you withdraw from the study prior to its completion, you will not receive the \$35 gift card.

***Questions regarding the study***

If you have any questions about the study at any time, you may contact the PI/interviewer, Carrie L. Mitran, at [clmitran@ncsu.edu](mailto:clmitran@ncsu.edu). You can also contact the faculty advisor for this protocol, Dr. Stanley Baker, at [sbaker@ncsu.edu](mailto:sbaker@ncsu.edu) and 919-515-6360.

***Your rights as a research participant***

If, at any time, you feel you have not been treated according to the descriptions in this form, or your rights as a participant have been violated during the course of this study, you may contact the NC State University IRB Director at [IRB-Director@ncsu.edu](mailto:IRB-Director@ncsu.edu), 919-515-8754, or [fill out this confidential form online](#). If you would like additional information about research and being a research participant, you may visit: <http://go.ncsu.edu/researchparticipant>

***Consent to participate***

By electronically signing this consent form, I am affirming that I have read and understand the above information. I have received a copy of this form. I agree to participate in this study and understand that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.

**Yes, I want to be in this research study.**

**Name** \_\_\_\_\_

**Email** \_\_\_\_\_

**Today's Date** \_\_\_\_\_

**No, I do not want to be in this research study.**

**Thank you for your consideration.**

## **Appendix K. Broad Consent Addendum**

### **North Carolina State University**

**Title of Study where Broad Consent is Initially Sought:** A Paradigm Shift: Examining the Experiences, Challenges, Perceptions, and Recommendations of licensed counselors and other licensed mental health providers who work with neurodiverse adults (**eIRB# 24047**)

**Principal Investigator:** Carrie L. Mitran, [clmitran@ncsu.edu](mailto:clmitran@ncsu.edu), 984.292.9120

**Faculty Point of Contact:** Dr. Stanley Baker, [sbaker@ncsu.edu](mailto:sbaker@ncsu.edu), 919.515.6360

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This form asks you to make an important choice about the use of your re-identifiable information. It asks you to decide if you are willing to give your consent to the use of your re-identifiable information for future research.

If you agree, researchers in the future may use your re-identifiable information in many different research studies over an indefinite period of time without asking your permission again for any specific research study. This could possibly help other people or contribute to science. If you do not agree to allow your re-identifiable information to be used for future research, your information will not be kept for future use by anyone.

This form explains in more detail what saying “yes” or “no” to this use of your information will mean to you.

#### ***If you say “Yes” on this form***

The researcher(s) will store, use and share your re-identifiable information and may do so for the purpose of medical, scientific, and other research, now and into the future, for as long as they are needed. This may include sharing your re-identifiable information with other research, academic, and medical institutions, as well as other researchers, drug and device companies, biotechnology companies, and others.

If you say “yes”, there are no plans to tell you about any of the specific research that will be done with your re-identifiable information.

By saying “yes,” your re-identifiable information may be used to create products or to deliver services, including some that may be sold and/or make money for others. If this happens, there are no plans to tell you, pay you, or give any compensation to you or your family.

The main risk in saying “yes” is that your confidentiality could be breached. Through managing who has access to your re-identifiable information and through regularly updated data security plans, we will do our best to protect your re-identifiable information from going to people who should not have it.

Another risk is that if you say “yes,” your re-identifiable information could be used in a research project to which you might not agree to if you were asked specifically about it.

You will not personally benefit from saying “yes” in this form. Saying “yes” in this form is not a condition of participating in the A Paradigm Shift: Examining the Experiences, Challenges, Perceptions, and Recommendations of Licensed Counselors and Mental Health Providers Working with Neurodiverse Adults study, nor of your enrollment or employment at North Carolina State University.

***If you say “no” or do not complete this form***

The researcher(s) and institution(s) identified above will not store, use, or share your re-identifiable information beyond the purposes stated in the previous consent form that you agreed to and signed for study A Paradigm Shift: Examining the Experiences, Challenges, Perceptions, and Recommendations of Licensed Counselors and Mental Health Providers Working with Neurodiverse Adults.

***If you want to withdraw your consent***

You can stop participating at any time for any reason. Please contact the student PI, Carrie L. Mitran, at [clmitran@ncsu.edu](mailto:clmitran@ncsu.edu). You can also contact the faculty advisor for this protocol, Dr. Stanley Baker, at [sbaker@ncsu.edu](mailto:sbaker@ncsu.edu) and 919-515-6360. You can expect that the researcher(s) will redact your re-identifiable information from their data set, securely destroy your data, and prevent future uses of your re-identifiable information for research purposes wherever possible. This is possible in some, but not all, cases.

***If you have questions***

Please ask the research team to explain anything in this form that you do not clearly understand. Please think about this broad consent and/or discuss it with family or friends before making the decision to say “Yes” or “No.”

If you have any questions about this broad consent, please contact the student PI, Carrie L. Mitran, at [clmitran@ncsu.edu](mailto:clmitran@ncsu.edu). You can also contact the faculty advisor for this protocol, Dr. Stanley Baker, at [sbaker@ncsu.edu](mailto:sbaker@ncsu.edu) and 919-515-6360.

If you want to discuss your rights as a person who has agreed to, refused, or declined to respond to an offer of broad consent or believe that your rights were violated as a result of your agreeing to this broad consent, please contact the NC State IRB Director at [IRB-Director@ncsu.edu](mailto:IRB-Director@ncsu.edu), 919-515-8754, or [fill out this confidential form online](#).

**Please select one checkbox and enter your name and today's date**

**Statement of agreement**

I say yes. The future use of my data and consent has been explained to me, and I agree to give my consent to the future research uses of my re-identifiable information. My participation is voluntary, and I may withdraw my consent at any time without any penalty or loss of benefits to which I am otherwise entitled.

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**Statement of agreement: Name**

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**Statement of agreement: Today's Date**

**Statement of refusal**

I say no. The consent has been explained to me and I do not agree to this consent. **You can still participate in this research if you say no on this form.**

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**Statement of refusal: Name**

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**Statement of refusal: Today's Date**