Behavior Analyst Supervision Through a Neurodiversity-Affirming Lens:

An Examination of Practitioner Knowledge and Future Directions

By

Amanda Pewett

Capstone

Submitted to the Faculty of the

Peabody College of Education and Human Development of

Vanderbilt University

in partial fulfillment of the requirements

for the degree of

DOCTOR OF EDUCATION

in

Leadership and Learning in Organizations

May 2023

Nashville, Tennessee

Contents

Acknowledgments ... 9

Abstract ... 12

Land Acknowledgment ... 13

Positionality Statement ... 14

Introduction ... 16

Partner Organization ... 16

Purpose of Capstone ... 19

Literature Review ... 20

Neurodiversity ... 20

Applied Behavior Analysis ... 21

Autistic and Neurodivergent Perspectives Regarding ABA ... 22

Certificants ... 24

Growth of the Profession ... 25

Certification Process ... 26

Areas of Professional Emphasis ... 28

Supervision and Mentorship ... 29

ABA and Neurodiversity ... 30

(Dis)ability ... 32

Social and Medical Models of Disability ... 33

Diversity, Equity, and Inclusion (DEI)+ ... 33

Disability and Critical Race Studies (DisCrit) ... 35

Conceptual Framework ... 35

Data Collection ... 39

Participant Recruitment ... 41

Survey Development and Process ... 42

Development ... *42*

Process ... *43*

Ethnographic Interview Development and Process ... 44

Ethnographic Interview Development Process ... *44*

Data Analysis ... 44

Coding ... 45

Ethnographic Interview Analysis ... *45*

Survey Analysis ... *46*

Results ... 49

Demographic Results ... 49

Survey Participants ... 49

Interview Participants Survey Results ... 50

Likert Scale Questions ... *52*

Open-Ended Survey Questions ... *54*

Ethnography Results ... 55

Thematic Analysis ... *55*

Findings ... 57

RQ1 ... 57

Finding 1 ... *57*

Finding 2 ... *58*

RQ2 ... 58

Finding 1 ... *58*

Finding 2 ... *58*

RQ3 ... 58

Finding 1 ... *58*

Limitations and Considerations for Research ... 59

Recommendations ... 61

Recommendation 1 ... 61

Recommendation 2 ... 62

Recommendation 3 ... 63

Conclusion ... 64

References ... 66

Appendix A: Glossary ... 75

Diversity, Equity, and Inclusion Related Terminology ... 77

Common Abbreviates Used within Organizations and Literature ... 78

Appendix B: Recruitment Letter ... 80

Appendix C: Letter to Potential Participants ... 82

Appendix D: Behavior Analytic Community Survey Questions ... 84

Appendix E: Survey Questions: Neurodivergent/Autistic/Disabled Community ... 86

Appendix F: Ethnographic Interview Questions ... 88

Appendix G: Recruitment Flyer 1 ... 91

Appendix H: Instagram Post 1 – image series ... 92

Appendix I: Instagram Post 2 – image series ... 94

Appendix J: Instagram Post 3 – image series ... 99

Appendix K: Facebook Post Flyer ... 101

Appendix L: Facebook and Instagram Cross-Posted Flyer ... 102

Appendix M: Facebook and Instagram Cross-Posted Flyer 2 ... 103

Appendix N: Conceptual Framework ... 104

Appendix O: Neurodiversity Definition Rubric ... 105

Appendix P: Level of Knowledge: Neurodiversity Definition ... 106

Appendix Q: Self Report of Neurodiversity Knowledge ... 107

Appendix R: Social v. Medical Model Disability Rubric ... 108

Appendix S: Level of Knowledge: Social and Medical Model of Disability ... 108

Appendix T: Strategies for Learning About Neurodiversity ... 110

Appendix U: Number of Strategies Used by Neurotype ... 111

Appendix V: Level of Knowledge: Neurodiversity Defintion ... 112

Appendix W: Self Reported Neurodiversity Affirming Methods ... 113

Appendix X: Social Identities Integrated into Supervision Practices ... 114

Appendix Y: Self Report: Assist in Program Development 115

Appendix Z: Self Report: Neurodivergent Self-Identification 116

Appendix AA: Self Report: Listening to Neurodivergent Perspectives About ABA................. 117

Appendix BB: Self Report: Listening to Neurodivergent Perspectives...................................... 118

Appendix CC: Self Report: Asked to Consult 119

Appendix DD: Complete List of Likert Scale Survey Questions for ABA Clinician Group 120

List of Figures

Figure 1: Pathway to Certification for RBTs, BCaBAs, and BCBAs 28

Figure 2: RBT Eligibility Criteria 28

Figure 3: Conceptual Framework 37

Figure 4: Intersectional Identities Example 38

Figure 5: Study Participants: Categorical Breakdown Flowchart 43

Figure 6: Disability Model Definition Examples 49

Figure 7: Neurodiversity Definition Examples 548

Figure 8: Social Identities Integrated into Supervision Practices 52

Figure 9: Number of Strategies Used by Neurotype 53

Figure 10: Strategies for Learning about Neurodiversity 53

Figure 11: Self-Report of Neurodiversity Knowledge 54

Figure 12: Level of Knowledge: Neurodiversity Definition 56

Figure 13: Level of Knowledge: Social and Medical Model of Disability 56

List of Tables

Table 1. Behavior Analysis: Professional Levels……………………………………………..26

Table 2. Credentialed Clinicians from 1999–2023. 27

Table 3. BCaBA Eligibility Criteria 28

Table 4. BCBA Eligibility Criteria 29

Table 5. Top Three Primary Areas of Emphasis (Behavior Analyst Certification Board, 2023). 29

Table 6. Sample of Private Facebook Groups Focused on ABA and Neurodiversity 32

Table 7. DEI-Focused Abbreviates and Acronyms Used Across Industries 36

Table 8. Definitions of Terms within DEIJAB 39

Table 9. Research Questions 40

Table 10. Research Questions and Data Collection Methods 41

Table 11. Sample Self-Evaluation Likert Scale Survey Questions 48

Table 12. Neurodiversity Definition Rubric 49

Table 13. Model of Disability Definition Rubric 49

Table 14. Survey Participant Demographics 51

Table 15. Supervisor Status by Gender: Survey Respondents 51

Table 16. Supervision Status by Gender: Interviewees 51

Table 17. Value and Proportion of Identities Integrated into Supervision 52

Table 18. Likert Scale Questions: Significance Level by Question Topic 55

Table 19. Codes and Themes 57

Table 20. Themes and Examples 57

For my mom, Patricia.

Acknowledgments

To my family, Dan, Melissa, and Mark, thank you for supporting my pursuit of higher education. I have missed events and gatherings throughout the past three years. You understood that school is a priority. I am thankful for your encouragement and positive outlook, especially when school was challenging.

To my sister, and closest friend, Melissa, you have been by my side from the beginning. You believed in me when I did not believe in myself and helped me push through when work, school, and everyday life created a perfect storm. Thank you for celebrating achievements along the way, and for cheering me on, and for encouraging me to step beyond what is comfortable.

To my dearest friends, Jennifer, and Marcia, thank you for listening to me talk about research and learning nonstop for three years. You heard my concerns when I was overwhelmed, and laughed with me when I needed a break. You have been constant sources of love and support. I could not have gotten through this program without you.

To my students, past and present, thank you for reminding me that learning is a lifelong adventure. As your teacher I learned how to be flexible, to persist, and to advocate. Each phase of my career as an educator has been strengthened by your presence in my life at that time.

To my first cohort of practicum supervisees—Lisa Ropoza Cartlidge, Sirin Yilmaz, and Elizabeth Kim Yee—thank you for trusting me to be your mentor and supervisor. I enjoyed sharing my knowledge with you, learning with you, and supporting your growth as teachers and practitioners. You provided your students with a positive and supportive education, rooted in acceptance and belonging.

To my Peabody College cohort members, I am honored to have studied alongside you for the last three years. We did it! I am grateful that I had the chance to get to know all of you and to

develop my leadership skills with a group of brilliant professionals. Thank you for pushing me to grow and providing reassurance along the way.

To my professors, thank you for offering thought-provoking, engaging, and psychologically safe learning spaces. This experience has been the most challenging of my educational journey, but also the most fulfilling. I appreciate your constructive feedback and the consistent support. You made me feel that I could achieve my goals and take my new skills out into the world. I am forever grateful.

To my advisor, Dr. Henrick, I cannot begin to express how your support has helped me during this capstone process, and throughout the last year of the program. You were flexible and kind, generous with your time, and provided guidance when I needed it. I learned from you as an instructor in coursework and benefitted from your mentorship throughout this research process. I am grateful for your leadership and positive outlook. You helped me through the difficult moments and celebrated the successive accomplishments along the way.

To Dr. Pooja Lakshmin, thank you for offering me the space to grow and engage in challenging work and reflection. I would not have applied to Vanderbilt without your encouragement. You helped me to understand my worth, to believe that I deserve peace, and to find my place in the world.

To Dr. Deborah Feldheim, thank you for being a constant source of comfort and assurance throughout my doctoral program journey. You were there every step of the way, from my first class to my capstone. During difficult moments you helped me pause and regain my footing.

To my sweet companion animals: Crush, Spell, Raven, Zero, and Wednesday, you were my constant source of joy, calm, and support. I wish that Honey made it to the end of this journey. I'm grateful for these loving creatures.

Abstract

Applied Behavior Analysis (ABA) is the science of behavior, often used with children and adults. Neurodivergent people are often consumers of ABA through school, community, and clinical settings across the lifespan. To improve practice, and to provide equitable, human-centered, affirming clinical support, behavior analysts are expanding their knowledge of the neurodiversity movement, theory, and affirming practices. This capstone project focuses on practitioner knowledge of affirming methods and the application of such methods with neurodivergent people in the context of ABA services. This research aims to inform the development of a neurodiversity-affirming supervision training for Board Certified Behavior Analysts (BCBA).

Keywords: Applied Behavior Analysis (ABA), Board Certified Behavior Analysts (BCBA), neurodiversity-affirming, neurodivergent, supervision training, equity, and access

Land Acknowledgment

This research was conducted on the ancestral lands across three regions: Lipan Apache and Comanche lands, currently occupied by the municipality of Lubbock, Texas, and The LEAP Institute of Equitable Access and Practices (LEAP); Piscataway and Anacostan lands currently occupied by the municipality of Washington, DC, where this researcher resides; and Cherokee East, Yuchi, and Shawnee lands, currently occupied by Vanderbilt University and the municipality of Nashville, Tennessee. I honor with gratitude the people who have stewarded the land through the generations of their ongoing contributions to these regions. I acknowledge the ongoing injustices that have been committed against these peoples and Nations. I also recognize that our personal experiences can influence the perspectives shared in this paper, and I include a statement of positionality to situate my identities as an educator and clinical practitioner in the context of this report.

Positionality Statement

In the context of qualitative research, it is important for the researcher to position themselves to the subject of our research. Our personal experiences inform the lens through which we view the project (Creswell, 2013). This researcher represents multiple privileged perspectives. First, as an educator with 18 years of experience across many educational settings, I have been in positions of power. I have worked with subordinated groups of people including disabled children and young adults, many of whom were non-speakers or unreliable speakers, and used some type of adaptive or alternative form of communication (e.g., typing, sign language, gestures, vocalizations, communication boards, etc.). Throughout my career I have worked in school districts in which most of my students were Black, Indigenous, and People of color (BIPOC). Often the classrooms and teachers for whom I provided consultation, or the classrooms I taught, have been segregated classrooms, sometimes called self-contained classrooms. In these settings, the students spent more time outside of general education than inside, receiving specialized instruction with peers also receiving special education services. Second, I grew up within a financially affluent household, with two working parents who owned their own business. This afforded me many privileges throughout my childhood and offered me the chance to attend universities throughout my higher education, without financial burden. Third, I am a BCBA who works in the field of ABA, and therefore represent the professional community at the center of this research. During my professional training I had the benefit of incorporated clinical supervision within my full-time job and did not have to seek out supervisors to complete my coursework. My professional experience aligned with my credentialing board's requirements for supervision and practical work, which allowed me to complete my training in a standard period without any significant breaks. Several of my teammates were BCBAs which

allowed me to select a person who did not supervise me in another capacity. I was not impacted by concerns over a dual relationship in supervision. My organization's makeup also provided the chance to have multiple supervisors within the same organization, without having to make accommodations for scheduling or working across departments or locations. Finally, I am a cisgendered, heterosexual white woman. My lived experiences signify privilege of access, opportunity, and acceptance. While I am a neurodivergent person, who gained diagnosis as an adult, I did not experience significant adverse effects during my education. This is not often the case for many people who are neurodivergent but do not gain access to appropriate evaluation. As an adult I did not experience barriers to diagnosis, accessing evaluation, support, and corresponding academic accommodations. I have not experienced inflexibility from my instructors at the graduate level, with consistent use of universal design principles, or through immediate acknowledgment of requests for accommodations.

Introduction

This capstone project focuses on the application of ABA with Neurodivergent people, and the training processes employed to develop behavior analysts into clinical supervisors. The history of ABA, and the historical application of ABA with intellectually and developmentally disabled (IDD) individuals, is relevant to this project. Additionally, social justice activism over the last 50 years, including the disability rights and civil rights movements, provide context for the present-day focus on diversity, equity, inclusion, and belonging across the fields of education, psychology, and behavior science.

Partner Organization

The Lighthouse of Equitable Access and Practices (LEAP) Institute, located in Lubbock, Texas, is a non-profit organization that aims to meet the needs of subordinated groups entering the field of ABA. LEAP is a neurodiversity-affirming, trauma-responsive ABA organization located in West Texas. Dr. Mari-Luci Cerda, the co-founder and vice president of LEAP, offers a vital perspective as an Indigenous, Autistic BCBA with a PhD in special education. As a clinician she applies her positionality and multi-faceted perspectives to the practice of behavior science. As the vice president of LEAP, Dr. Cerda serves as the primary contact as capstone partner and will use the information gained from this project to develop a supervision-training program. This capstone project will provide Dr. Cerda and her team valuable data and vital information needed to create the training package, measurement criteria, and system for training delivery. LEAP was founded to help address the inequitable access to opportunities for marginalized and non-dominant students pursuing education in the field of behavior analysis (LEAP, 2020a). In two years, LEAP has helped the community by providing supervision, mentorship, and study group scholarships to over 40 non-dominant supervisees (LEAP, 2020a).

LEAP is currently developing a tiered web-based supervision program for students pursuing certification in ABA. Practicum students must accrue 2,500 hours of direct work in the field, under the supervision of a BCBA, with supervision privileges, who is in good standing with the Behavior Analyst Certification Board (BACB) (BACB, 2022c). Once certified a certificant must complete an eight-hour in-person or web-based supervision training and pass the competencies to supervise practicum students (BACB, 2022c). Many financial and social barriers exist for student behaviorists, and newly certified behavior analysts, who aim to supervise others (Slanzi and Sellers, 2022). LEAP is actively engaged in addressing the disparity within behavioral services for BIPOC, non-BIPOC, LGBTQIA+, and neurodivergent groups, who often experience isolation within the field through engagement in diverse practitioner growth practices (LEAP, 2020a).

In this study the approaches used to integrate neurodiversity-affirming, trauma-responsive practices into practical work in ABA are examined. The proposed training modules created by the LEAP team will serve as a guide for the development of survey and interview questions regarding neurodiversity-affirming and trauma-responsive clinical approaches. A singular perspective on neurodiversity-affirming and responsive practices has not been adopted within the field of ABA. No specific guidance is provided by the BACB on how to incorporate neurodiversity-affirming methods into clinical work (BACB, n.d.-b). LEAP aims to better understand what practicing clinicians understand about neurodiversity theory and affirming practices through this capstone partnership. This capstone project will provide LEAP with the information they need to consider what current practitioners understand about neurodiversity theory and affirming practices.

LEAP aims to understand how BCBAs conceptualize neurodiversity, and how person-centered, supportive behavior analytic methods are perceived by practicing clinicians. At present, the BACB provides no guidance to its clinicians on the integration of social justice or critical pedagogy models. As attention to the neurodiversity movement has gained traction, more BCBAs are seeking out resources to learn about the theory and methodology to incorporate such concepts into their clinical practice. The BACB's ethical guidelines are not population specific, therefore the board does not endorse, suggest, or restrict any clinical approaches in relation to neurodiversity-affirming practices.

In addition to providing mentoring, coaching, and scholarships to students, LEAP is invested in continuous improvement within ABA. There is an intensive multi-year process involved in the pursuit of certification in ABA. Students must complete an approved graduate-level course sequence as part of a master's degree in ABA, or as an additional certificate following the successful completion of a masters in a related field like special education, developmental psychology, or education (BACB, 2018). During this time, students must accrue 2,500 hours of supervised practical work in an appropriate setting (BACB, 2018). For example, a special education teacher pursuing board certification in behavior analysis may be able to count their direct teaching time during the week toward their contact hours, with guidance from a credentialed BCBA. BCBAs must take only an eight-hour supervision course to deliver supervision of a practicum student. The lack of key content in the supervision training required to supervise others is under immense scrutiny (Cernius, 2022). While the future process is under review within the BACB, one critical area of concern in the community, and more specifically in LEAP, is the inclusion of neurodiversity-affirming and trauma-responsive practices into the supervision curriculum.

LEAP Institute plans to develop a tiered training program that meets the requirements of the eight-hour supervision guidelines and extends beyond the minimum curriculum. Their training will provide instruction in areas including neurodiversity, disability rights, inclusion, trauma-responsive behavior analysis, and anti-ableism. The leadership team at LEAP has a strong foundation in clinician expertise and personal experience. They hope to better understand the lived experiences of neurodivergent and autistic people to create their supervision curriculum. LEAP is invested in advancing the field of behavior analysis by offering a pathway for clinicians to understand, accept, and honor neurodivergent and autistic perspectives and to integrate these critical viewpoints to clinical practice.

LEAP's mission is grounded in responding to the disparate access to training, supervision, conferences, and professional learning communities for historically underrepresented communities including Black and Indigenous people of color (BIPOC), neurodivergent people, and those who identify as Two Spirit, lesbian, gay, bisexual, transgender, queer, intersex, or asexual (2SLGBTQIA+) (LEAP, 2020c). To meet the needs of these communities in behavior science, LEAP is proactively developing systems of support and mutual aid to develop diverse practitioner growth. Co-founder of LEAP Dr. Mari-Luci Cerda asserts that the behavior analytic community "cannot fully address the disparity of services to diverse populations until we address the disparity of diverse practitioners within our professional fields" (LEAP, 2020d).

Purpose of Capstone

To move forward with development of comprehensive training and supervision services we must understand 1) what training methods support and affirm neurodiversity, 2) what methods represent harmful practice for neurodivergent and autistic clients, and 3) what

differences exist in application of behavior science approaches among neurodivergent and neurotypical behavior scientists. Through this research project, respondents will provide vital information about neurodiversity-affirming methods that cultivate safe, nurturing, and ethical learning and working spaces. By engaging a diverse group of participants, including neurodivergent and autistic people, neurodivergent and autistic behavior science clinicians, and neurotypical behavior science clinicians, LEAP Institute will have data to strengthen their instructional, supervisory, and advocacy programming.

Literature Review

To examine the scope of research relevant to this project I considered several key areas of literature focus, including ABA, dis(ability), neurodiversity, social justice, Disability and Critical Race Theory (DisCrit), and Diversity, Equity, Inclusion, Justice, Accessibility and Belonging (DEIJAB).

Neurodiversity

Judy Singer (1999) first described neurodiversity in *Disability Discourse.* Singer compares neurodiversity or neurological diversity to biodiversity. McGee (2012) describes neurodiversity as “a political naming” (p. 12). As of the 1990s Singer asserts that disability was viewed in three ways: physical, intellectual, and psychiatric disability. This is an important distinction because psychiatric disability or mental illness triggered stigma and negative perspectives. Before there was a strong grasp of the autism spectrum, many autistics were relegated to programs and supports for those with mental illness. This era highlighted the general misunderstanding of autistic spectrum and the wide variance and individuality of autistic people. Singer found that her thesis of neurodiversity aligned with the social model of disability, which

describes the way in which society disables people by rigid expectations, exclusion, and negative perceptions of disabled people (Singer, 1999).

Applied Behavior Analysis

Applied behavior analysis (ABA) is the science of socially significant behavior (BACB, 2020). Examples include teaching a client how to ask for help; teaching a client to implement safe, effective self-soothing techniques when upset; or teaching a client how to travel in the community. ABA examines the environmental factors that influence behavior, and is used across many contexts, including educational systems, medical facilities, community settings, corporate environments, and athletics. ABA research has focused on the broad application of the science with living organisms. ABA can be used for individuals and groups of people. ABA consumers include students, athletes, organizations, teams, and communities. The most common application of ABA to date occurs within the contexts of education and healthcare, serving clients and students from birth to adulthood, particularly intellectually and developmentally disabled (IDD) people (BACB, 2023a). LEAP is an organization that works with students and practitioners pursuing certification and training in ABA. Most of those professionals work with children and adults.

This field has grown since the 20th century and is applied in education, sports, organizational management, human behavior, and work with animals. The earliest research applications with people focused on IDD participants, including autistic adults and children. Today, much of the empirical research includes disabled participants, despite evidence supporting the application of the science across populations (BACB, 2023a). Many autistic adults and advocates have expressed concern that ABA has been harmful and continues to cause harm to autistic and disabled people. Concern centers on the belief that ABA perpetuates ableist

ideals about human behavior. These concerns have been expressed passionately from autistic and neurodivergent advocates, and those who report having gone through ABA-based therapy as children (Rosenzweig & Prizant, 2022). This researcher will make no attempt to discredit or pass judgment on those who criticize ABA. This research and the capstone partner organization, LEAP, share the perspective that listening to the lived experiences of autistic and neurodivergent people is necessary to reconcile with any harms done to address systemic issues within the field and to move forward with reform and reparations.

Autistic and Neurodivergent Perspectives Regarding ABA

Attitudes from the adult autistic community range from supportive to calls for banning the use of ABA all together. There are many autistic and neurodivergent BCBAs, BCaBAs, and RBTs. Some were diagnosed before entering the field, while others were diagnosed or came to self-identify after becoming clinicians. Notably, the co-founder of this capstone partner organization is an autistic woman and a practitioner of ABA. This paper will not address all the criticism and concern from the adult autistic and neurodivergent communities regarding ABA, nor the responses from leaders from the ABA community. The scope of this research is focused on a sample group of ABA practitioners. However, this research is based in the belief that ABA professionals with the desire to improve their practice, provide ethical services, reform oppressive or harmful systems, and center the voices of autistic and neurodivergent people can achieve their goals through collective work. This research is not intended to silence or discredit anyone with concerns about ABA. Rather, the perspectives of autistic and neurodivergent people are critical to this research, both from literature review and through the data collection and analysis process.

A popular web-based publication called *Neuroclastic* (https://neuroclastic.com) is a non-profit, self-published resource led by a community of volunteers. They write about autistic experiences, advocate for autistic adults and children, express concerns, voice calls-to-action, conduct research, and engage with the ABA community. One *Neuroclastic* contributor, C. L. Lynch (2019) described an often repeated disagreement on social media between "autism moms" and autistic adults. Lynch captures the sometimes intensive conflict that may arise if an autistic adult calls ABA "abuse." In Lynch's example, this assertion may cause a parent to describe their experience (as a parent) with ABA and how ABA has helped their child. What Lynch points out is that disagreement can create tension and argument between parents and adult autistics. An allistic (not autistic, neurotypical) person cannot understand why ABA is abusive to autistics because they are not autistic.

Autistic Doctors International (ADI), a group comprised of over 700 autistic medical doctors, began as a peer support group in 2019 with just seven members. They have adopted a neurodiversity-affirming approach centered around support, advocacy, research, and education (Autistic Doctors International, n.d.). Members of ADI, Bernard, Grosjean, and Caravallah (2022), suggest that neurodiversity-informed therapeutic intervention must emphasize the alteration of external factors to support an autistic person (p. 1272). Eigsti, Girolamo, and Fein (2022) assert that the focus of early intervention (EI) should not be to minimize characteristics or symptoms associated with an autism diagnosis. Instead, EI should focus on language, social communication, adaptive behavior, and relationships (p. 1272). These recommendations by medical professionals, who work with autistic children and their families, some of whom are autistic themselves, draws attention to the criticism that ABA is used to make a person seem less

autistic, or that behavior change efforts are more for the people around the autistic person rather than the autistic person.

A neurodiversity-affirming approach to ABA aligns with the observations and recommendations of ADI. The focus of ABA programming for children and adults must focus on autonomy, daily living skills, relationships, employment, and leisure activities that are important to the autistic person and align with their needs (Eigst et al., 2022). Milton (2020) expressed criticism of ABA for autistic people and produced several recommendations for person-centered affirming approaches. Milton describes the need for a holistic approach to support that "accounts for neurodivergent sensibilities, perceptual differences, subjective accounts, cognitive and neuroscientific theory, and a social model of disability" (p. 47). A neurodiversity-affirming approach involves focus on strengths and individual interests rather than emerging skills or perceived weaknesses. Neurodivergent perspectives should be incorporated into the learning process for professionals developing their competence. Communities of practice encourage a neurodiversity-affirmative approach through developing multi-disciplinary teams, with diverse areas of expertise, which centers the neurodivergent person, ensuring that their perspective is always considered (p. 48).

Practitioners of ABA

Certificants

There are three levels of behavior analysis professionals: Board Certified Behavior Analysts (BCBAs), Board Certified Assistant Behavior Analysts (BCaBAs) and Registered Behavior Technicians (RBTs) (BACB, 2020). BCBAs are graduate-level independent practitioners of ABA. They provide direct service, mentor others, supervise subordinates, and specialize in different areas of practice. As shown in Table 1, practitioners of behavior analytic services vary

in their education level related to ABA, their level of clinical expertise, and whether they can supervise others.

Table 1. Behavior Analysis: Professional Levels (Behavior Analyst Certification Board, 2020)

Behavior Analysis Professional Levels			
Initialism	**RBT**	**BCaBA**	**BCBA**
Professional Title	Registered Behavior Technician	Board Certified Assistant Behavior Analyst	Board Certified Behavior Analyst
Education	High School Level	Bachelor's Level	Graduate Level
Certification Type	Paraprofessional certification in behavior analysis	Undergraduate level professional under supervision of BCBA	Independent practitioner
Supervision	Cannot supervise others	Can supervise RBTs	Can supervise BCaBAs and RBTs

Growth of the Profession

The (BACB) oversees the education, training, and supervision of BCBAs. In 1999 the first cohort of BCBAs obtained licensure through the BACB. As shown in Table 2, there were 28 BCBAs in 1999. For the first 10 years after the board was founded the number of certificants increased gradually. Within the past five years the number of certificants has doubled (Bailey & Birch, 2022). By 2009 the rate of new certificants had increased by several thousand new clinicians each year. As of April 3, 2023, there are 61,337 BCBA certificants (Behavior Analyst Certification Board, n.d.). Applicants could pursue certification as a BCBA or a BCaBA starting in 1999. The RBT credential was added in 2014 to address the growing need for support and services across settings such as schools, clinics, and community spaces. RBTs function like school-based paraprofessionals, with additional training, coursework, and examination (BACB, 2020).

Table 2. Credentialed Clinicians from 1999–2023 (Behavior Analyst Certification Board, 2023a).

Commented [kjn1]: add letter

Clinician	1999	2004	2009	2014	2019	2023
BCBA	28	2,057	5,731	16,376	37,869	61,337
BCaBA	2	1,375	1,787	2,151	4,044	5,520
RBT	N/A	N/A	N/A	328	70,361	136,113

Certification Process

Each professional level follows a similar pathway to licensure with differences in the number of courses or type required, the amount of supervision hours needed, and examination questions. For each level of certificant, the process begins with completion of a verified course sequence, direct supervision from a certificant with supervisory privileges, completion of a task list outlining professional competencies, applying to sit for the board exam, and, finally, achieving a passing score on a comprehensive multiple-choice exam.

RBTs, BCBAs, and BCBAs have similar expectations to meet eligibility requirements. The content within their training and the amount of training required differs. Figure 1 depicts the four-step process that is consistent across credential levels. Those pursuing certification must 1) meet eligibility criteria set forth by the BACB, 2) apply to sit for board examination, 3) take and pass the exam, and 4) maintain certification (BACB, 2022c). BCaBas and BCBAs have similar requirements for eligibility, as shown in Tables 3 and 4. BCaBAs may choose to complete an Applied Behavior Analysis International (ABAI) accredited degree program or complete a verified course sequence. BCBAs have more flexibility in their educational pathway. They may complete an ABAI-accredited degree program, complete a verified course sequence, teach ABA-focused coursework as part of a university faculty, or complete a post-doctoral experience. The

BACB has announced changes coming to the eligibility pathways within the next 10 years. By 2032, only ABAI-accredited programs will be approved to meet eligibility criteria (BACB, 2022c).

Figure 1.

Pathway to Certification for RBTs, BCaBAs, and BCBAs

Applicants have different eligibility criteria depending on the level of credential they are pursuing.

Figure 2.

RBT Eligibility Criteria

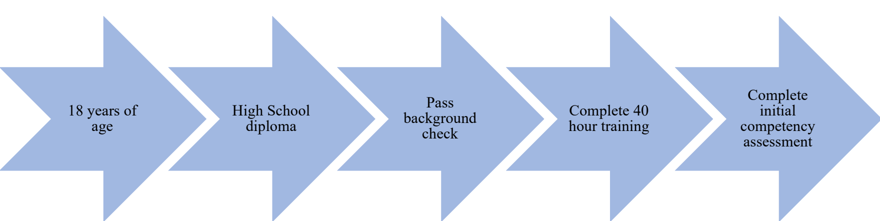


Table 3. BCaBA Eligibility Criteria

Approved Learning Experiences	
Pathway 1	Pathway 2
ABAI-Accredited Degree	Behavior Analytic Coursework

Table 4. BCBA Eligibility Criteria

Approved Learning Experience			
Pathway 1	Pathway 2	Pathway 3	Pathway 4
ABAI-Accredited Degree	Behavior Analytic Coursework	Faculty Teaching and Research	Post-Doctoral Experience

Areas of Professional Emphasis

Clinicians of each level (e.g., RBT, BCaBA, BCBA) work with clients in various settings and contexts and across demographic groups. As shown in Table 5, the primary areas of emphasis overall (combined credential level) are autism, indicated by 72.17% of clinicians. Table 5 indicates the top three populations served by each clinical level. While autism is the first for each practitioner group, the second and third groups differ across clinical categories. It is notable that, while the areas of emphasis differ, all the clinicians are all working in a clinical or related field such as clinical behavior analysis (i.e., clinical setting; therapeutic setting), education (e.g., school; across lifespan), and IDD (e.g., clients are intellectually and developmentally disabled). When considering the settings required for these populations or emphasis areas, it is possible that there is overlap across demographic groups and instructional settings.

Table 5. Top Three Primary Areas of Emphasis (Behavior Analyst Certification Board, 2023).

	1st	**Emphasis**	**2nd**	**Emphasis**	**3rd**	**Emphasis**
Overall	72.17%	Autism	6.85%	Clinical behavior analysis	4.37%	Education
RBT	71.98%	Autism	4.86%	Clinical behavior analysis	4.34%	Education
BCaBA	78.84%	Autism	6.21%	Education	4.21%	IDD

Commented [kjn2]: add letter after year

BCBA	71.91%	Autism	12.19%	Education	4.97%	IDD

Supervision and Mentorship

Mentorship and supervision are critical relational practices that occur throughout the professional life of BCBAs, BCaBAs and RBTs. From the time that students enter a program of study, through practical work, direct supervision, credentialing, and application of ABA principles, ABA professionals engage in mentor/mentee dynamics. Supervisors with higher credentials like BCBAs oversee the work of BCBAs and RBTs. Often doctoral-level BCBAs (BCBA-Ds) act as clinical directors or program supervisors, mentoring all programming staff and clinicians. It is common for practitioners to reach out for consultation to more-experienced clinicians or those who specialize in another area, as in other fields like medicine (BACB, 2020).

Students and clinicians seeking supervision and mentorship can search for potential supervisors on the BACB website. Various search criteria can be selected including credential level, active status, country, and state. Certificants can also be searched by name. To refine the pool of potential supervisors, supervisees may choose to list only selected options from the following four categories: 1) have completed supervision training, 2) are willing to supervise BCaBAs and RBTs, 3) are willing to supervise those pursuing BCBA or BCaBA certification, and 4) with current disciplinary actions (Behavior Analyst Certification Board, n.d.).

Supervisees are limited in their ability to access detailed information about potential supervisors. If a supervisee wanted to work with a supervisor who has a background in a specific area, that information would not be available through the board’s website. There is no method for searching for a supervisor through the BACB website based on the method or curriculum they will use for supervision. The directive from the board is to follow the ethical guidelines and

the supervision guidelines to prepare supervisees (Behavior Analyst Certification Board, n.d.). This researcher selected "Texas" in the certificant registry and refined the pool by selecting those who 1) have completed supervision training, 2) are willing to supervise BCaBAs and RBTs, and 3) are willing to supervise those pursuing certification. A list of 100 entries was populated from that search. The information provided includes name, location, country, certification (e.g., BCBA), and status (e.g., active, inactive). There is not a way to search under specialty or to find a clinician with training in neurodiversity, diversity, equity, and inclusion (DEI) or any other approach (Behavior Analyst Certification Board, n.d.).

ABA and Neurodiversity

Over the last several years a growing number of BCBAs have come to acknowledge the necessity of using neurodiversity theory to inform their practice as clinicians. This movement, which is rapidly growing, stems from controversy surrounding ABA as it is used with disabled people, especially autistic children, and adults. The social media groups related to this research topic have been established within the last five years, as shown in Table 6. A grassroots network of learning communities has emerged online through Facebook and other social media sites as a means of creating communities of practices of BCBAs, behavioral psychologists, autistic BCBAs, and autistic advocates and activists (see Table 6). A search on Facebook for "BCBAs and neurodiversity" produced a list of several closed and public groups. All the groups are visible to the public, allowing potential members to view the mission or group focus. These private groups have moderators to oversee posting and group behavior. Table 6 shows a partial list of private groups, number of members as of May 1, 2023, and the group's shared mission. This list is not exhaustive. The reach of these groups continues to expand, as more practitioners of ABA are seeking out support to learn about ABA through a neurodiversity-affirming lens and

to learn from autistic adults. Public groups are available to anyone and are moderated, while private groups require potential members to complete a predetermined set of entrance criteria. This might include answering questions about yourself and agreeing to follow certain rules. Autistic BCBAs, a subset of this community, are working tirelessly to engage with both communities and to develop safe, appropriate, and meaningful practices within existing ABA institutions and community spaces.

Table 6. Sample of Private Facebook Groups Focused on ABA and Neurodiversity

Facebook Group	Members	Created	About
Neurodiversity-Affirming ABA Supervision	952	2/11/2021	"The collaboration of autistics and BCBAs to create supervision curriculums and content to provide to supervisees in the field" (Neurodiversity Affirming ABA Supervision, n.d.).
Listen. Learn. Lead.	9,501	12/28/2018	"This group started in 2018 as an effort to make resources available to professionals and consumers of behavior science toward an effort to more effective, ethical, and inclusive practices. We continue those efforts by making a space to share thoughts, resources, and connections to listen, learn, and lead" (Listen. Learn. Lead., n.d.).
Mindful Behavior in ACTion	4,578		"Our ultimate goal is to amplify autistic and ND experiences, listen to these voices, incorporate new strategies into our own respective fields, while utilizing mindfulness in our professional and personal lives" (Mindful Behavior in Action, n.d.).
BCBAs + Autistics Toward a Reformed ABA	3,327	11/30/2018	"Our mission in ABA Reform is to advocate for systemic changes in the field of applied behavior analysis as it relates to the neurodivergent community" (BCBAs + Autistics Toward a Reformed ABA).

As the number of BCBAs, BCaBAs, and RBTs who engage in the work of learning about neurodiversity and social justice increases, challenges within the community are emerging. Some

practitioners are concerned that our credentialing board does not address calls-to-action regarding social issues. The BACB released the following statement on their website on January 11, 2022:

> The BACB's primary purpose is to administer its certification programs, which predominantly includes establishing eligibility, maintenance, and ethics requirements; developing and administering examinations; and collaborating with licensing authorities. Although the BACB plays an important role in the applied behavior analysis profession, its role is considerably smaller than many realize. Indeed, the range of activities in which the BACB can engage is quite limited because of how the BACB was incorporated, requirements of its certification-program accreditor, and how the BACB achieved tax-exempt status under the US Internal Revenue Code. These restrictions limit the BACB's ability to make political and social pronouncements. Thus, it is the policy of the BACB to work within its range of permitted activities and refrain from engaging in commentary on social issues, leaving this activity to more appropriate organizations (professional membership organizations and societies) that generally have fewer restrictions and the ability to more meaningfully address social issues (BACB, 2022a).

In summary, the BACB's position is that they will not address social issues because their focus is on eligibility, maintenance of credentials, and ethics requirements. The position that the board should leave social issues to membership organizations limits the ABA professionals from developing competence with critical ethical issues. Autistic advocates, disability rights experts, and supporters of neurodiversity-affirmative approaches to learning believe that the basis for neurodiversity-affirmative care is indeed an ethics issue (Eigst et al., 2022).

(Dis)ability

Social and Medical Models of Disability

The medical model of disability recognizes physical and cognitive differences against a normative scale. Within the medical model the approach to teaching and learning may focus on symptom improvement or the way in which others view a disabled person. Opponents of a medical model of disability argue that the focus is on deficits and a need to be corrected or improved to fit into a neurotypical society (Jurgens, 2020). The social model of disability examines disability using a social perspective. This model is in opposition to the idea that disabled people are in some way flawed or that their personhood must be corrected or improved (Jurgens, 2020).

The social model of disability recognizes that people are disabled by their environment. According to the social model, structural, environmental, social, and systemic barriers impact a person and cause them to face limitations—resulting in exclusion and inaccessibility. This differs from the medical model of disability, which views a person's condition as something that could be changed or fixed. Critics of the medical model of disability argue that it is inherently ablest because the person is viewed from the perspective that there is something wrong with them or that they do not meet what society has established around normalcy. The medical model of disability focuses on what a person has been diagnosed with by a clinician or diagnostician (University of California, San Francisco, n.d.).

Diversity, Equity, and Inclusion (DEI)+

Interpretations of diversity, equity, and inclusion (DEI) have taken on many forms in recent years. Table 6 shows the three terms and abbreviates used today to describe the components of diversity-related organizational practices. Organizations and researchers may discuss the theoretical and real-life applications using terms like "justice," "equity," "diversity,"

and “inclusion” (JEDI). Others have progressed toward a justice-focused framing of the concept: diversity, equity, inclusion, justice, accessibility, and belonging (DEIJAB). Whichever initialism or acronym is used to signal engagement in equity work, the goal is to move from theoretical discussions to action (Sung and Dreis, 2022). The framework’s name is less important than the application of the principles used for improvement and systems change. For this capstone research, diversity, equity, inclusion, justice, accessibility, and belonging (DEIJAB) will be considered as the basis for the DEI framework. DEIJAB was selected because the concepts of inclusion, justice, accessibility, and belonging closely align with the principles of disability justice and disability rights. Social justice and the disability rights movement are complementary social movements with a long history, starting in the 1960s (Crenshaw, 1989).

The importance of recognizing and honoring the intersection of identities, including race, gender, and disability cannot be understated. Identities are fluid and shift throughout one’s life. To evaluate current practices and systems, and to consider the historical failures and challenges that have created barriers for subordinated groups, it is necessary to examine systems of power and dominant culture (Southern Poverty Law Center, 2022). Acknowledging identities is necessary for genuine inclusion, accessibility, belonging, and equity within shared spaces and systems. Social identities are more than names and labels that people ascribe to within their communities. Identity is recognized, shaped, and developed personally, and is not constructed by someone else. Social identities are dynamic, multiple, sociological, and salient (Center for Creative Leadership, 2023).

The intersection of identities is critical to the work of remediating and progressing beyond injustice. Crenshaw (1989) described that exclusion or intersectionality minimizes the impact experiences by multiply-marginalized groups of people. Dominant cultural narratives are

often considered and centered over subordinated groups. Crenshaw discussed how Black women are typically viewed in one group, not as a representative of multiple social identities. This erasure of other historically marginalized perspectives (e.g., disability status) can cause harm.

Table 7. DEI-Focused Abbreviates and Acronyms Used Across Industries

Abbreviate/Acronym	Meaning
DEI/EDI	Diversity, equity, inclusion
DEIB	Diversity, equity, inclusion, and belonging
DEIJAB	Diversity, equity, inclusion, justice, accessibility, and belonging

*See the Glossary for additional abbreviates

Disability and Critical Race Studies (DisCrit)

The intersection of disability and race, a research lens referred to as Disability and Critical Race Studies (*DisCrit)*, is the combination of Disability Studies (DS) and Critical Race Theory (CRT). This research approach, developed by Annamma, Connor, and Ferri (2013), provides a theoretical basis for analysis of race and disability (Annamma et al., 2013). DisCrit recognizes both race and disability as being socially constructed. By viewing disability as something that is neutral and not inherently negative or problematic, it encourages the recognition that diversity of neurotype or disability status is something to be honored and incorporated into an equitable society (Davis, 2010). The "othering" of people who represent race or abilities different from the dominant culture has caused harm. Equity can be achieved through careful consideration for diversity of identities.

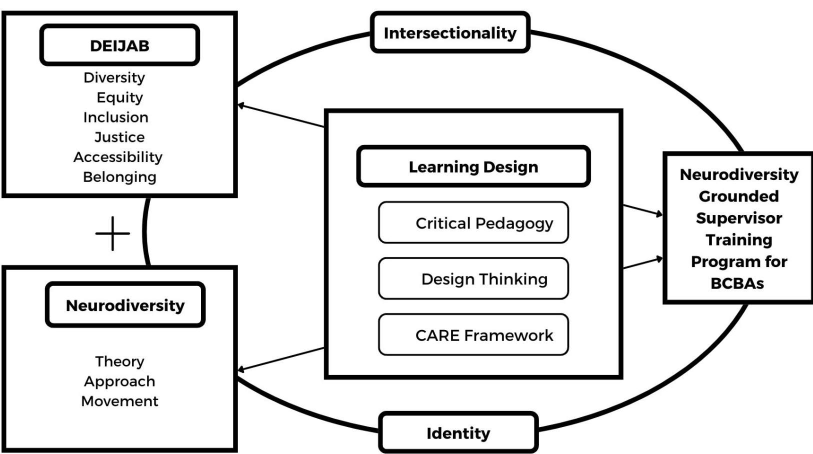
Conceptual Framework

This research project is focused on expanding the application of neurodiversity-affirming practice within ABA. To meet LEAP's needs and provide a framework for integrating

neurodiversity-affirming methods into behavior science and supervision training, concepts related to diversity, equity, and inclusion were incorporated.

Figure 3.

Conceptual Framework



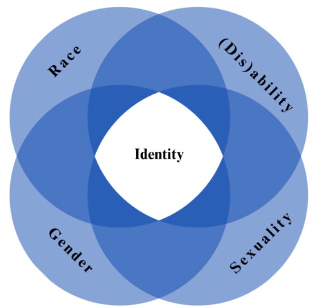
First, the framework establishes the theories supported in the literature relative to the capstone purpose and the research goals. Diversity, equity, inclusion, justice, accessibility, and belonging (DEIJAB), and neurodiversity, are placed together at the beginning of the framework. Within the conceptual framework, "neurodiversity" includes the theoretical basis, the movement, and the affirming approaches supported by research and the lived experiences of neurodivergent people. The blending of DEIJAB and neurodiversity is central to this research. A plus sign is used in this figure to show that neurodiversity and DEIJAB co-exist. Neurodiversity, like other types of diversity, is not simply a term for describing types of people by their neurotype; it represents a social identity, and a culture that must be acknowledged and considered when

addressing DEI-based interventions for organizations. Neurodiversity theory and research are incorporated into the diversity, equity, and inclusion theory and research for this capstone project.

Kimberle Crenshaw (1989) presented the idea that all oppression is intertwined, describing the link between oppression across identities as “intersectionality.” Figure 4 shows an example of the interactions between different identities, which can be co-constructed as forms of oppression.

Figure 4.

Intersectional Identities Example



Identity is constructed from an individual’s understanding of who they are, through the social groups with whom they connect. Social identities provide people with a sense of belonging (Dartmouth, n.d.) Intersectionality and identity, both featured in DEI and neurodiversity literature, envelope the framework (Figure 3), indicating that personal identity and the intersection of identities cannot be separated from DEI work. The second phase of the conceptual

framework features literature-supported learning-design curricula and methodology that LEAP can employ to deliver supervision training in the future.

Table 8. Definitions of Terms within DEIJAB

Terms	Definition
Diversity	"Diversity includes all the ways in which people differ, and it encompasses all the different characteristics that make one individual or group different from another. It is all-inclusive and recognizes everyone and every group as part of the diversity that should be valued. A broad definition includes not only race, ethnicity, and gender—the groups that most often come to mind when the term 'diversity' is used—but also age, national origin, religion, disability, sexual orientation, socioeconomic status, education, marital status, language, and physical appearance. It also involves different ideas, perspectives, and values" (UC Berkley Center for Equity, Inclusion and Diversity, n.d.).
Equity	The condition and the process together that would be achieved if the identities assigned to historically oppressed groups no longer acted as the most powerful predictor of how one fares. The root causes of inequities, not just their manifestations, would be eliminated. This includes elimination of policies, practices, attitudes, and cultural messages that reinforce or fail to eliminate disproportional outcomes (economic, educational, health, criminal justice, etc.) by group identity" (Baltimore Racial Justice Action [BRJA], 2016).
Inclusion	"Authentically bringing traditionally excluded individuals and/or groups into processes, activities, and decision/policy making in a way that shares power" (Open Source Leadership Strategies, n.d.).
Justice	"Presence of systems and supports (e.g., policies, practices, norms) that achieve and sustain fair treatment, equitable opportunities, and outcomes for people of all races. Systematic, proactive reinforcement" (The Inclusion Solution, n.d.).
Accessibility	"The 'ability to access' the functionality of a system or entity and gain the related benefits. The degree to which a product, service, or environment is accessible by as many people as possible. *Accessible design* ensures both direct (unassisted) access and indirect access through assistive technology (e.g., computer screen readers). *Universal design* ensures that an environment can be accessed, understood, and used to the greatest extent possible by all people" (Harvard Human Resources, n.d.).
Belonging	"Belonging means that everyone is treated and feels like a full member of the larger community, and can thrive" (Harvard Human Resources, n.d.).

This literature review included an extensive search of the BACB website, guidelines, and ethical codes. Search terms used on the BACB website include: neurodiversity, equity, justice, diversity, accessibility, belonging, and inclusion. This review confirmed that there is no guidance on the integration of DEIJAB into the professional scope of clinical practice. At present, there is no approach or curriculum used to teach behavior analysts about DEIJAB or neurodiversity, either identified by the BACB or provided by approved supervisors (Behavior Analyst Certification Board, n.d.). This research project will provide LEAP with suggested

teaching and learning methods to consider as they develop their supervision training, based on the literature review, and the study findings.

Study Design

The study design is based on the conceptual framework and the literature review, which informed the development of the survey questions. Review of the BACB's guidelines, codes, requirements, and bylaws illuminated the areas of DEI—and, more specifically, neurodiversity theory—to consider when developing the survey questions. To incorporate the critical concept of intersectionality of identities, extensive demographic questions were developed so as to gain as much information as respondents were willing to divulge. Review of certificant data provided by the BACB highlights that the two demographic measures collected by the board include gender and race/ethnicity. It is important to this research that participants could disclose additional details, including gender identity or expression, using current terminology—including disability status, neurotype, age, and race. Survey questions were constructed using three unique pathways for the types of participants: ABA professionals (neurodivergent and neurotypical) and neurodivergent professionals.

Table 9. Research Questions

RQ1	To what extent do neurodivergent and neurotypical supervisors have a working knowledge of neurodiversity?
RQ2	How do supervisors describe neurodiversity-affirming practices within their scope of practice? What, if any DEI practices are supervisors integrating into their supervision curriculum?
RQ3	How are supervisors accessing information about neurodiversity-affirming practices?

Data Collection

To address the research questions outlined in this research project ethnographic interviews and a survey were used. This research focuses on improving supervision practices for

clinicians working in ABA. Supervisors must consider their supervisee's needs, and the expectations of the BACB when providing quality supervision. To examine neurodiversity-affirming practices, and how they can be applied to behavior analysis. This research incorporates literature from the field of ABA, social justice, and learning theory. The data collection process included multiple ways to gather information about identity, perspective, and knowledge. The lived experiences of autistic and otherwise neurodivergent people provide critical insight into curriculum and training development of ABA practitioners. Ethnographic interviewing and electronic survey offer both qualitative and quantitative data sources, ranging from free-form responses to specific questions, participants' rating of specific behavior analytic principles, and personal training experiences.

Table 10 shows data collection methods used to address each of the three research questions. Each question was addressed using both types of survey questions and the ethnographic interview questions. Document analysis was also used to evaluate what references to neurodiversity, DEI principles, and/or guidance on the integration of DEI concepts are included in the code of ethics or supervision documents from the BACB.

Table 10. Research Questions and Data Collection Methods

Research Question	Data Collection Method
RQ1: To what extent do neurodivergent and neurotypical supervisors have a working knowledge of neurodiversity?	1. Survey – multiple-choice questions 2. Survey – open-ended questions
RQ2: How do supervisors describe neurodiversity-affirming practices within their scope of practice? What, if any, DEI practices are supervisors integrating into their supervision curriculum?	1. Survey – multiple-choice questions 2. Survey – open-ended questions 3. Ethnographic interview
RQ3: How are supervisors accessing information about neurodiversity-affirming practices?	1. Survey – multiple-choice questions 2. Ethnographic interview

Participant Recruitment

Multiple communication methods were used to reach a large audience—including autistic and neurodivergent professionals in the field of ABA as well as those outside the field. The first phase of recruitment involved dissemination of a series of flyers across multiple social media platforms, including Facebook, Instagram, and LinkedIn. Both personal and professional accounts were used to connect with potential respondents around the country. The flyers were also released in private groups on Facebook devoted to collaboration between behavior analysts and autistic people. Additionally, the co-founder of LEAP released the flyers on her social media pages and on the LEAP Institute social media accounts. Over a one-week period, updated flyers were released daily across social media platforms. Consistent hashtags were used on Facebook and Instagram to ensure that social media connections and broader selection of relevant communities (e.g., autistic and neurodivergent people, behavior scientists) could access the flyers.

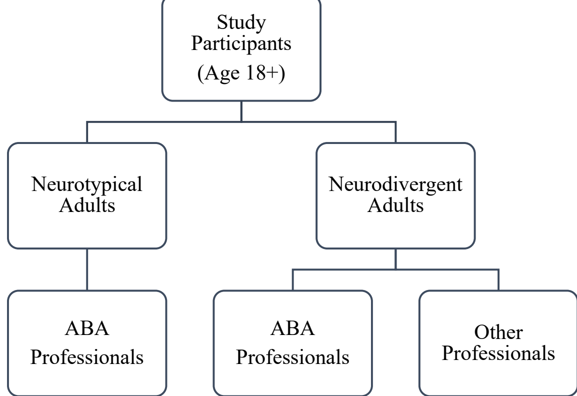
During the initial dissemination period the flyers released on Instagram were shared by connections and unknown individuals to their personal pages, and to their “stories” (short-term message) on Facebook and Instagram. My social media connections, which include other behavior analysts and disability rights advocates, increased by approximately 100 people during the initial dissemination phase, indicating that the hashtags used in my posts may have contributed to developing a wider audience. Each post was “pinned” at the top of my Instagram and Facebook pages, keeping them prominently displayed for anyone who visited my page.

Interested participants completed a Google-form-generated brief survey to ensure they met criteria for participation. Participants had to indicate they were 18 years of age or older, that they worked in the field of ABA, and/or they were diagnosed or self-identified as an autistic or

otherwise neurodivergent person. Initially, the target participants included both neurotypical and neurodivergent ABA professionals, as well as autistic and neurodivergent people outside the field. However, no autistic people outside the field responded to the call for participants. It was determined that focusing on autistic and neurodivergent ABA professionals for the ethnographic interview process would provide relevant data from a key group of professionals who can also share their experiences as neurodivergent people. Figure 5 depicts the overall participants demographic (age 18+), followed by the two main groups (neurotypical and neurodivergent adults). The participants fall into two main groups: neurodivergent adults and neurotypical adults. Neurotypical adults were included if they were credentialed ABA professionals. Neurodivergent adults could either be ABA professionals, or professionals from other fields.

Figure 5.

Study Participants: Categorical Breakdown Flowchart



See the Glossary for definitions of terms, including “neurotypical” and “neurodivergent”

Survey Development and Process

Development

The survey was developed in partnership with LEAP. This researcher suggested the use of survey and ethnography to access participant attitudes, perspectives, and knowledge regarding current ABA practices, integration of neurodiversity-affirming methods, and general understanding of neurodiversity-affirming and responsive methods within supervision and direct clinical work. Dr. Cerda met with this researcher to discuss what objectives should be met through the training. Dr. Cerda reviewed her individual experiences with supervision training and her role as a supervisor now. This researcher also shared firsthand experiences as a supervisor and supervisee. Dr. Cerda and this researcher agreed that this eventual tool used by LEAP for supervision training would need to accommodate learners of all levels: from introductory understanding of neurodiversity to advanced knowledge. To meet the needs of a diverse group of future trainees, the use of scaled questions using Likert scales and open-ended questions were selected for the survey portion.

Respondents self-reported their personal knowledge, comfort level, and reception of current practices and theories from the disability justice movement and autistic and neurodivergent culture.

Process

The survey was delivered using Qualtrics, a survey-creation tool and software system. The survey included extensive demographic questions. The answers to these questions generated threads specific to participants. Three main tracks were available based on responses to initial demographic questions: 1) Autistic and neurodivergent adults over 18 who do not work in the field of ABA, 2) Autistic and neurodivergent clinical professionals over 18 who are credentialed and work in the field of ABA, and 3) Neurotypical and/or non-disabled clinical professionals who are credentialed and work in the field of ABA. Additional questions were provided to

professionals who currently supervise other professionals or train practicum students pursuing certification in behavior analysis. All clinical professionals, regardless of neurotype, were asked identity-related demographic questions. Clinical professionals were also asked to define "neurodiversity" and share neurodiversity-affirming practices. Clinicians also identified their comfort level and understanding and perception of autistic and disability cultural ideals.

Ethnographic Interview Development and Process

Ethnographic Interview Development

Interviews were completed using Zoom over a two-week period. Respondents were asked the same set of questions related to their individual experiences, perceptions, and understanding of neurodiversity-affirming methods for learning and teaching. Participants were asked to share demographic information about their age, race, gender identity, disability status, sexual orientation, and *neurotype* (neurological identity, diagnosis, or self-identified condition). One research question focused on the intersection of disability and other identities, including race and gender. Participants were welcome to answer questions within their comfort level and were informed that skipping a question would not exclude them from participating.

To meet the individual needs of participants, questions were offered ahead of time, typically 24 hours beforehand. Some participants welcomed previewing the questions, while others stated the preview was not needed. Participants were given the choice to be interviewed with or without turning their camera on. Interview questions were read aloud to the participant and displayed on the screen using Zoom features, including screen sharing and the chat box, based on interviewee preference. Questions were repeated and rephrased as needed to accommodate the communication styles and executive functioning skills of each participant.

Data Analysis

Coding

Ethnographic Interview Analysis

Interview recordings were captured through Zoom using just audio or audio and video feature. Zoom recordings were then transferred to OtterAI (https://otter.ai), transcription software that enables direct transcription of conversations and transcription of uploaded audio files. OtterAI captures dialogue with sufficient accuracy, however errors can be present. To ensure that the transcriptions were accurate, the audio files were replayed and confirmed against the generated text to correct any inaccuracies.

Qualitative coding involved systematically categorizing data in search of themes and patterns. Qualitative coding is a process that will 1) increase validity, 2) decrease bias, 3) accurately represent participants, and 4) enable transparency (Delve, n.d.). Inductive coding, a “ground-up” approach to coding, involves coming up with codes as you read through your transcripts. Researchers start by reading their data, assigning codes to their data, and grouping the data to identify themes represented in the data (Delve, n.d.).

Delve (https://delvetool.com), a qualitative coding software tool, was used to complete thematic analysis of the transcribed interviews. To start, each of the interview transcripts was copied into Delve. Each transcript was titled with the initials of the respondent. Once the transcripts are loaded into the Delve tool, it is possible to toggle between each one (Delve, n.d.). Next, codes are saved in the software. Codes can be predetermined or generated when interacting with the data. Key phrases were highlighted while transcripts were being reviewed. A term or phrase was then determined, typed into the menu, and selected (Delve, n.d.). For example, if a respondent communicated about discrimination impacting their access to assessment or clinical evaluation, the code might be “barrier.” This process was repeated for each of the six transcripts.

For each transcript this researcher selected phrases and complete sentences and marked them with appropriate codes. If existing codes in the self-created menu did not fit, then a new code was generated. Multiple codes can be assigned to a specific selection (Delve, n.d.). Preliminary coding of large themes related to disability, neurodiversity, ableism, and identity were completed on each of the interviews. A second round of analysis was completed of each interview based on micro concepts from the larger social themes, including race, gender, neurotype, and neurodiversity-affirming methods.

Thematic analysis identified similarities and unique perspectives across the participants. Participants expressed their personal and professional lived experiences, and how their intersectional identities play a role in their work as behavior analysts.

Survey Analysis

Survey results were compiled into a spreadsheet in Qualtrics (https://www.qualtrics.com). The results were uploaded in R Studio (https://posit.co/download/rstudio-desktop/), an open-source integrated development environment used for statistical computing and graphics (R., n.d.). R was used for descriptive statistical analysis in this project. To begin analyzing the data set generated from the survey, this researcher completed the data-cleaning procedures, including sorting, organizing, and reading in data from the .TSV file. TSV files are used when a survey includes inconsistent punctuation. Some survey responses were open ended, allowing participants to write in complete or incomplete sentences, using a variety of punctuation or contractions. R would not be able to read this in another format, so all data sets were saved as TSV files, which recognize the variance in answers. Statistical analysis of demographic data, question responses, probabilities, and tests for statistical significance were completed (R., n.d.). Formulas for analysis generated charts, tables, and graphs to graphically display the data.

Analysis for the survey responses included open-ended questions, multiple-choice questions, and Likert scale questions in which participants self-evaluated their perspectives, comfort level, and overall knowledge. The Likert scale questions were first analyzed to determine how many participants responded within each category (e.g., ranging from "very uncomfortable" to "very comfortable"), as shown in Table 11. Remaining questions can be found in Appendix DD.

Table 11. Sample Self-Evaluation Likert Scale Survey Questions

Sample of Survey Questions	Scaled Choices
A potential client asks me to describe neurodiversity affirming/responsive practices that I use with my current client.	1. Not knowledgeable at all 2. Somewhat knowledgeable 3. Moderately knowledgeable 4. Very knowledgeable 5. Extremely knowledgeable
Listening to the lived experiences of autistic and neurodivergent people improves my practice.	1. Strongly disagree 2. Somewhat disagree 3. Neither agree nor disagree 4. Somewhat agree 5. Strongly agree
Listening to autistic and neurodivergent perspectives about ABA makes me feel …	1. Extremely uncomfortable 2. Somewhat uncomfortable 3. Neither comfortable no uncomfortable 4. Somewhat comfortable 5. Extremely comfortable

The rubrics used to score the neurodiversity and disability model definitions are reflected in Tables 12 and 13. Each of the questions that required participants to provide their own definition of disability-related and neurodiversity-theory-related terms were scored for accuracy. Scores were assigned as 0, 1, or 2 points. Inaccurate definitions were scored with 0 points, partially accurate definitions received 1 point, and accurate definitions were assigned 2 points.

Table 12. Neurodiversity Definition Rubric

Accuracy Level
Responses scored using a 3-point scale. Points assigned based on accuracy and specificity compared to the recognized definition generated by Singer in 1998.

0 Points	1 Point	2 Point
Inaccurate	Partial	Accurate

Table 13. Model of Disability Definition Rubric

Accuracy Level Responses scored using a 3-point scale. Points assigned based on accuracy and specificity compared to the recognized definition generated by Singer in 1998.		
0 Points	**1 Point**	**2 Point**
Inaccurate	**Partial**	**Accurate**

Reponses consistently included accurate approximations of the definition, partially accurate details, or inaccurate details. A three-point scoring system aligned with the data set. Examples of each level of response are depicted in Figures 6 and 7.

Figure 6.

Disability Model Definition Examples

ACCURATE
2
"Medical model looks at deficits and social model looks at skills and strengths."

PARTIAL
1
"Medical model requires a medical diagnosis and treatment from medical providers to remediate systems. In a social model is non-medical support.

INACCURATE
0
"Services are deemed medically necessary treatment ."

Figure 7.

Neurodiversity Definition Examples

ACCURATE
2
"Variation in the human brain. It's a different way of thinking, learning and processing."

PARTIAL
1
"It's means you operate different than what is typical."

INACCURATE
0
"A blessing and a curse."

Results

Demographic Results

At the start of the survey and the interview, participants were asked to disclose several demographic details about themselves, including race, age, gender identity/expression, sexual orientation, disability status, neurotype, and ethnicity. Disability status and neurotype were separated within the survey prompts and interview questions because not all neurodivergent people consider themselves to be disabled. Participants were asked to share as much detail about their disability status and neurotype as they felt comfortable sharing. Participants were asked if they had been formally diagnosed by a medical professional or if they self-identified with their neurotype. Participants who self-identified with their disability or neurotype were accepted. Participants were asked to share if they were formally diagnosed or if they self-identified. This question preceded questions about barriers to assessments and perspectives about self-identification.

As part of the survey and interview process, participants were told that they did not have to answer any demographic questions they did not wish to disclose, and that this decision would not impact their inclusion in the study.

Survey Participants

Survey participants are separated into two main categories: ABA professionals (all neurotypes) and neurodivergent professionals who do not work in ABA. A total of 42 participants completed the survey. One person had to be excluded because they did not answer most of the questions. The remining participants (41) included 36 ABA professionals and five neurodivergent adults. ABA professionals were separated into groups: those who supervise and those who do not, and by neurotype, as shown in Table 14.

Table 14. Survey Participant Demographics

ABA Professional Survey Participants				
Total (BCBAs, BCaBAs, RBTs)	**Supervise Others**	**Do Not Supervise**	**Neurodivergent**	**Neurotypical**
36	31	5	18	13

The ABA professionals who completed the survey were represented by two genders, with only male and female participants completing the survey. Of the 36 ABA professionals, 33 identified as women and three identified as men. As shown in Table 15, all three men supervise others, while 28 of the 33 women supervise others.

Table 15. Supervisor Status by Gender: Survey Respondents

Gender	Supervise Others	Do Not Supervise
Male	3	0
Female	28	5

Ethnographic Interview Participants Survey Results

Table 16. Supervision Status by Gender: Interviewees

Gender	Supervise Others	Do Not Supervise Others
Male	n/a	n/a
Female	6	0

Multiple-Choice Questions

In this portion of the survey, questions about supervision were asked of both neurotypical and neurodivergent clinicians. Participants were prompted with Select All That Apply (SATA) format questions. The following three figures (Figures 8, 9, and 10) show details from neurodivergent and neurotypical supervisors regarding 1) what social identities they incorporate into their supervision practices, 2) what neurodiversity-affirming methods they incorporate into their supervision, and 3) what strategies they currently use to learn about neurodiversity and

related affirming practices. The bar graphs show neurodivergent respondents and neurotypical respondents grouped separately.

Figure 8.

Social Identities Integrated into Supervision Practices

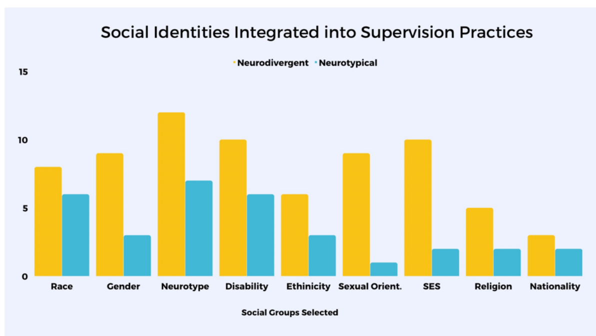


Table 17. Value and Proportion of Identities Integrated into Supervision

Social Identity	Neurodivergent				Neurotypical			
Race	Yes 8	Prop. .44	No 10	Prop .56	Yes 6	Prop. .46	No 7	Prop. .54
Gender	Yes 9	Prop. .50	No 9	Prop. .50	Yes 3	Prop. .23	No 10	Prop. .77
Neurotype	Yes 12	Prop. .67	No 6	Prop .33	Yes 7	Prop. .54	No 6	Prop. .46
Disability	Yes 10	Prop. .56	No 8	Prop. .44	Yes 6	Prop. .46	No 7	Prop. .54
Ethnicity	Yes 6	Prop. .33	No 12	Prop. .67	Yes 3	Prop. .23	No 10	Prop. .77
S.O.	Yes 9	Prop. .50	No 9	Prop. .50	Yes 1	Prop. .08	No 12	Prop. .92
SES	Yes 10	Prop. .56	No 8	Prop. .44	Yes 2	Prop. .15	No 11	Prop. .85
Rel./Spirit.	Yes 5	Prop. .28	No 13	Prop. .72	Yes 2	Prop. .15	No 11	Prop. .85
Nationality	Yes 3	Prop. .17	No 15	Prop. .83	Yes 2	Prop. .15	No 12	Prop. .85
None	Yes N/A	Prop. N/A	No N/A	Prop. N/A	Yes N/A	Prop. N/A	No N/A	Prop. N/A

*Proportions rounded to the nearest tens place

Abbreviations:

S.O.: sexual orientation

SES: socio-economic status

Rel./Spirit.: religious affiliation/spirituality

Figure 9.

Number of Strategies Used by Neurotype

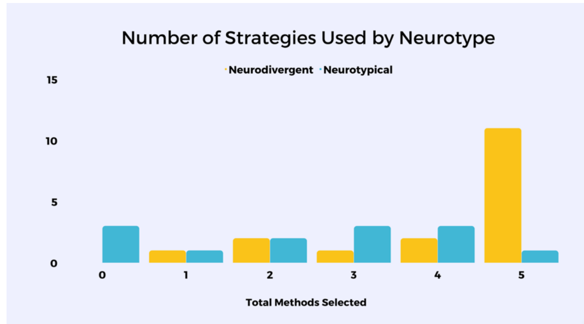
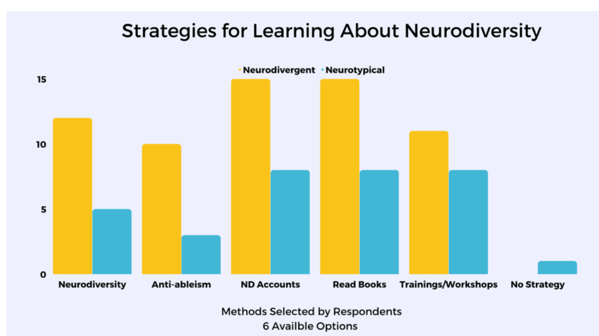


Figure 10.

Strategies for Learning about Neurodiversity

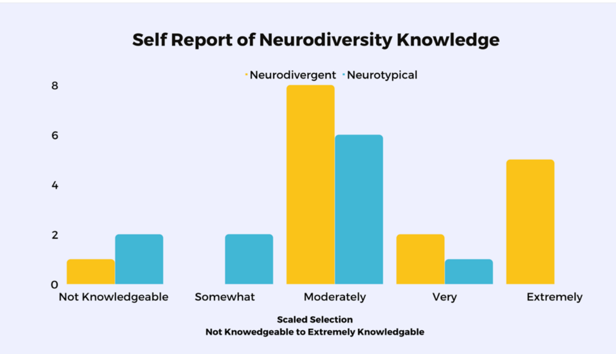


Likert Scale Questions

Likert scale questions prompted supervisors to select scaled responses to self-evaluate their knowledge, perception, or comfort level. Figures 11 through 13 show how supervisor participants rated themselves.

Figure 11.

Self-Report of Neurodiversity Knowledge



The proportion of responses within each response category was calculated to check for correlation between neurotype and higher rating on the Likert scale questions (e.g., 4 or 5). The questions where participants had to select their comfort level, knowledge level, and similar self-ratings were first analyzed to check the proportion of respondents who selected the top two values in the scale by neurotype—for example, the responses where a participant selected "very knowledgeable" or "extremely knowledgeable." Next, Fisher's T-Test was used to determine if the proportion of responses for each question were statistically significant. Fisher's Test was used because the values within each cell of the dataset are small. For each question the theme or subject matter of the question is listed in the table. The p-value is also indicated. There are two columns for statistical significance. The table shows whether the null hypothesis would be accepted or rejected based on a p-value of.05 and 1. The statistical significance of each question based on the Fisher's T-test is also included. Table 17 shows both .05 and.1 levels for analyzing statical significance. Each of the self-reflection questions related to knowledge level or perception of a cultural norm (e.g., self-identification of neurotype) reflected statistical

significance when using the higher p-value (1). The high p-value in “Collaboration” and “Listen” may be the result of the small number of respondents for this question. The sample size of participants is already small, and not every participant answers this question. Using a statistical significance level of 1, the null hypothesis is rejected, indicating that there is a correlation between neurotype and higher rating for these questions.

Table 18. Likert Scale Questions: Significance Level by Question Topic

Question Subject Matter	Fisher’s Test P-value	Significance Level .05	Significance Level 1
Consultation	.02	Yes	Yes
Collaboration	1.00	No	Yes
Listen	.15	No	Yes
ABA perspectives	.37	No	Yes
Self-Identification	.23	No	Yes
ND Knowledge	.10	No	Yes

Open-Ended Survey Questions

Within the survey clinical participants were asked to describe in their own words what a specific term or phrase means to them. Participants could write freely using jargon, colloquialisms, complete sentences, and incomplete sentences. Each response was scored using a scale of 0, 1, or 2 points. The results for each of the two questions are shown in Figures 12 and 13.

Figure 12.

Level of Knowledge: Neurodiversity Definition

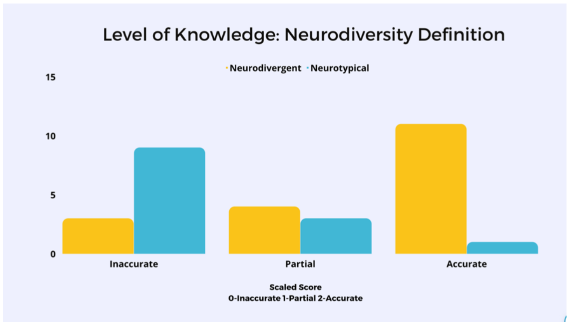
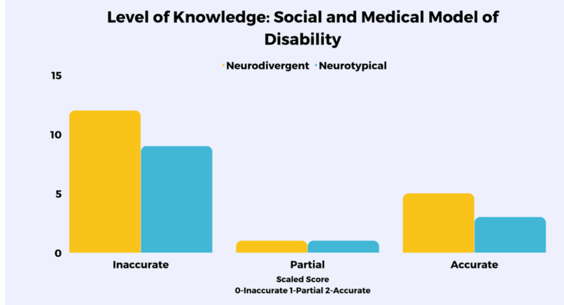


Figure 13.

Level of Knowledge: Social and Medical Model of Disability



Ethnography Results

Thematic Analysis

Thematic analysis of the ethnographic interviews incorporated a multi-step process. After thoroughly reviewing the transcripts, and correcting any errors of transcription with the audio files, codes were assigned to passages, sentences, and phrases within the interviews. Example codes include: regulation, transdisciplinary, grassroots, uncomfortable, and accountability.

Multiple codes were assigned to the same passage where appropriate. Codes were simplified and synthesized if more accurate terminology evolved from additional reading of the transcripts. The list of codes was then grouped into themes. The final list of themes from the analysis includes learning, people, resources, perspective, and communication. Table 19 and Table 20 include sample codes.

Table 19. Codes and Themes

Sample Codes	Theme	Total Count by Theme
Regulation Training Mentorship	Learning	314
Transdisciplinary Culture Personhood	People	335
Lack of oversight Literature Grassroots	Resources	90
Cognitive dissonance Uncomfortable Values	Perspective	153
Accountability Conflicting priorities Collaboration	Communication	128

*The codes listed are from a larger set. The sample codes list in the table is not exhaustive.

Table 20 includes illustrative quotes, selected to demonstrate the connection to the identified theme. One example is provided for each of the five themes.

Table 20. Themes and Examples

Themes	Example Quote
Learning	“We have a lot of work to do.”
People	“I won’t work anywhere where I can’t practice in a way that I find is ethical, and I’m committed to that.”
Resources	“I definitely follow a good number of accounts on social media … usually autistic people, or in general people working together to make the field more diverse and neurodiversity-affirming.”

Perspective	"I guess I'm always trying to understand from the child's point of view and help other people."
Communication	"I have years of experience in this field, and when I disclosed my diagnosis to them they literally stopped talking to me and told me to stop talking to them."

Findings

Results from the survey and ethnographic interview were analyzed and synthesized to develop three key findings. These findings reflect that variance in self-perception among neurodivergent and neurotypical supervisors as shown through the self-evaluation Likert scale survey responses. The difference in accuracy of personal definitions of neurodiversity and the models of disability indicate an area of emerging knowledge for both groups of supervisors. Findings show that supervisors are currently engaging in self-directed methods for learning about neurodiversity. Participants in both groups—neurodivergent and neurotypical supervisors—expressed difficulty in accessing the tools to learn about neurodiversity and affirming methods.

RQ1

Finding 1

Neurodivergent clinicians generated more accurate definitions of key terms, including "neurodiversity," "social model of disability," and "medical model of disability." The definitions provided by BCBAs who supervise were compared across neurotype: neurotypical and neurodivergent. The data reflected in Figures 12 and 13 indicate that when asked to define neurodiversity neurodivergent supervisors generated more accurate definitions than did their neurotypical counterparts. Neurodivergent behavior analysts scored higher on the three-point scale rubric. Neurodivergent supervisors were more likely to score a 1 or 2, as opposed to neurotypical clinicians, who were more likely to score a 0 or 1, as shown in Figures 12 and 13.

For example, neurodivergent respondents generated 11 accurate definitions of neurodiversity, while neurotypical clinicians generated just one.

Finding 2

Both neurodivergent and neurotypical BCBAs who supervise generated limited or emerging knowledge of the social model and medical models of disability, as reflected in Figure 13 and Table 11. It is notable that, though the social model of disability aligns to neurodiversity, respondents across neurotype stated that they did not know how to describe these models or that they had not heard of these terms before. Neurodivergent and neurotypical supervisors demonstrated a similar level of accuracy when their definitions were scored using a three-point rubric.

RQ2

Finding 1

Supervisors of both neurotypes report similar neurodiversity-affirming methods. Methods fall into three main categories: neurotype, client led, and assent. There were not striking differences between the types of neurodiversity-affirming methods that each subgroup of supervisor presented.

Finding 2

Neurodivergent supervisors utilize a wider range of DEI concepts in their supervision. Neurodivergent participants incorporated most listed social identities listed in their survey. Neurotypical supervisors were less likely to incorporate most, or all of the social identities listed.

RQ3

Finding 1

Supervisors are accessing content and developing their knowledge through three main categories of learning tools: social media, independent study, and hands-on learning opportunities. While both neurodivergent and neurotypical practitioners reported the use of similar methods to learn about neurodiversity, overall neurodivergent practitioners used more methods, and were more likely to use all the methods described in the survey. Consistently, participants of both neurotypes reported that learning from autistic and neurodivergent people has been helpful to them. This has occurred in several ways, from following advocates on social media, to reading books and blogs, to hiring a neurodivergent coach—as shown in Figures 7 and 8.

Limitations and Considerations for Research

There are a few key limitations to this research, as well as potential research directions to consider for the future. Initially, when developing the survey and interview instruments in collaboration with LEAP, the intent was to recruit more neurodivergent and autistic adults who work outside the field of applied behavior analysis. Despite extensive recruitment efforts through social media—including Facebook, Instagram, and LinkedIn—plus flyer dissemination through personal and professional networks, few autistic people were open to participation. There was some communication with curious individuals who saw the flyer and had follow up questions before further considering participating. One autistic adult asked what the funding source is of this research, how the participants would be compensated for their time, and how their contributions would potentially be used in the future. This individual questioned whether the findings and contributions of autistic and neurodivergent participants would turn into a training package that would then provide monetary benefit to this researcher or the LEAP organization.

This brought up an interesting point about dominant groups benefiting from information about subordinated groups.

Future researchers might benefit from explaining what type of information will be collected through sample questions, or providing a Frequently Asked Questions document to potential participants so that they could better understand the relationship with a capstone partner and what the product will be. Another consideration would be to not only work with a capstone or research partner but to provide compensation to autistic and neurodivergent consultants regarding the survey and interview tools.

This research project focused on an autistic-founded and operated non-profit organization. Additional efforts to recruit participants who work outside the field—to gain better understanding of autistic and neurodivergent perspectives compared to neurodivergent and neurotypical clinicians—might benefit from a webinar or informational video that provides potential participants with the opportunity to directly engage with autistic and neurodivergent leadership. There is skepticism from the autistic community, which is understandable. To bridge the gap and foster professional and collegial relationships, more information and transparency may prove beneficial. This research was limited, and lacked the time and resources needed for extensive recruitment. In the future, partnering with a well-regarded autistic or neurodivergent lead organization, such as Neuroclastic (https://neuroclastic.com) or the Autistic Self-Advocacy Network (ASAN, https://autisticadvocacy.org/), may provide opportunities to expand the network. To reach a broader audience, researchers should open themselves up to groups who openly criticize applied behavior analysis.

Recommendations

Combined results from the analysis of survey responses, qualitative and quantitative measures, and ethnographic interview results support three recommendations. These recommendations are supported by the relevant literature and the study findings.

Recommendation 1

Use data to place and evaluate trainees. LEAP may benefit from collecting extensive baseline data on the supervision-training participants. Hard et al. (2022) outlined five design recommendations for instructors of psychology to use when designing a course. Wiggins and McTighe (2005) recommend a three-step process known as backward course design in which instructors 1) identify desired results, 2) identify assessments, and 3) plan instruction. Data can be used as a tool for continuous improvement by focusing on a learner's strengths. Topics for initial baseline data include understanding of neurodiversity models of disability, diversity, equity, and inclusion ethics in behavior analysis; and understanding about autistic neurodivergent and disability culture. Interview findings support the challenges that many current practitioners face when learning about neurodiversity, autistic culture, and disability theory. Respondents discussed the limited exposure they had to such topics if they pursued a degree in ABA, as opposed to those who pursued a degree in a related field like special education, psychology, or social work.

Backward course design aligns with universal design for learning (UDL), promoting accessibility and inclusion (Hard et al., 2022). CAST (2018) outlines three questions for instructors to consider when designing instruction:

1) Does the lesson provide options that can help all learners?
2) Does the information provide options that can help all learners?

3) Does the activity provide options that can help all learners?

This is key to creating belonging and equity within a learning environment for Community of Practice (CoP) and serves as an instructional model for the supervisor trainees. By engaging in this type of course—developed using a backward course design framework—trainees will participate in an inclusive course environment featuring accessibility, support, representation, and community (Hard et al., 2022).

Recommendation 2

Utilize social media to establish and maintain a Community of Practice (CoP). A group that comes together around a shared vision, interest, problem, or passion is a Community of Practice (CoP). They share best practices through ongoing connection to sustain their collective work (Grimshaw et al., 2009; Kier et al., 2021). LEAP has an online presence through its website and through the social media engagement of its board members and founders. Dr. Cerda, also known by her Instagram handle @autie.analyst, has 10.7K followers (autie.analyst, n.d.). Table 6 shows how many ABA professionals and neurodivergent professionals interact through closed Facebook groups today. Communication through official channels—like the BACB public website, and member accounts for credentialed RBTs, BCaBAs, and BCBAs—is used to find certificants, verify credentials, and share mass communications. Credentialed practitioners can communicate with others through the BACB website by requesting a mass email distribution to disseminate information, to seek consultation, and to secure mentorship (Behavior Analyst Certification Board, n.d.). The public can also look up individual certificants on the BACB website (Behavior Analyst Certification Board, n.d.). This singular forum for networking with other professionals is limiting. There is not a system through which certificants can communicate with one another related to training, supervision, professional area of emphasis, or

pursuit of specialized training. Interview participants discussed the limitations that they experience living in rural areas, or in states that have smaller ABA communities. Participants described difficulty accessing knowledge about neurodiversity-affirming practices if the people in their professional or social networks are not invested in developing such a professional scope.

Social media has been a beneficial tool for communication, organization shared values, and resource sharing. Table 6 shows a sample of four closed Facebook groups created within the last five years where autistics, neurodivergent people, activists, allies, and ABA professionals engage in collective work to improve or reform ABA for the neurodivergent community.

LEAP is a non-profit organization that currently uses mutual aid to fund scholarships for people of subordinated groups to access education, training, certification requirements, and supervision (LEAP, 2020a). In an ideal scenario LEAP could create an organization-operated communication forum in which supervision-training completers could connect and maintain collegial interactions moving forward. This would present financial challenges, as the influx of funds to maintain and moderate a website would draw on limited resources. Instead of maintaining additional website features and programming, LEAP could utilize social media applications like Facebook to provide a forum for communicating and resource sharing. Kier et al. (2021) stated that social media can be used as a practice for exchange of ideas "across traditional institutional and geographical boundaries" (p. 1). Their research on the use of social media as a CoP forum in neonatal medicine found that social media modalities provide accessible and timely resource sharing, engagement with research, and communication (p. 8).

Commented [kjn3]: add letter

Recommendation 3

Integrate a DEIJAB-grounded framework that is designed for adult learners who interact with clients in a teaching and learning capacity. There are many options available for

researching and studying DEI concepts, but there are few curricular options designed for practitioners and educators. Most clinicians work with autistic, neurodivergent, and disabled clients in this field. Those clients are typically supported at home, at school, in jobs, and in the community. A framework that is research based and used in a K–12 setting aligns with many of the contexts in which BCBAs supervise others and practice independently. The CARE framework (2021) was created to “advance anti-racist curriculum and equip anti-racist educators” through access to tools and professional learning opportunities (p. 1). The framework is organized by five CARE principles: humanity, historic truths, critical consciousness, race, and racism, and just systems. Though CARE is focused on anti-racism, there are consistent themes relevant to the issues discussed here, including human experiences; intersectionality; countering dominant narratives, power, and marginalization; dismantling inequitable systems; and confronting bias, power, privilege, and oppression (Center for Anti Racist Education, 2021). All these themes align with neurodiversity-affirming approaches and anti-ableist lenses in which self-determination, autonomy, and equity are paramount to a just society.

Conclusion

This capstone project was designed to provide critical information to LEAP that will enable them to develop a comprehensive supervisor training program for BCBAs. LEAP aims to ground their training in neurodiversity-affirming theory and practices to meet the needs of the behavior science community as approaches are embraced that address disability, justice, and equity. The study findings will provide vital information to LEAP leadership as they develop their training and inform their practice. Survey results highlight that there is disparate understanding of disability theory and neurodiversity-affirming practices among practitioners. Most survey participants who demonstrated some level of proficiency with neurodiversity-

affirming and responsive practices accrued their knowledge, per their report, through personal study and affinity groups on social media. Each participant reported that they did not learn about neurodiversity-affirming practices within their clinical training, either at the university level or at the practitioner level. This highlights the challenge that practitioners face across the country when seeking out training related to affirming practices. The survey results also indicate a lack of focus on intersectionality of identities across university-level and clinical-training programs. For example, survey respondents expressed that there had not been any training related to anti-racism or queer theory in their training programs.

LEAP can use this information to fill the void that exists in current supervisor training practices for BCBAs. By centering the voices of subordinated groups, LEAP will be responsive to a common argument from the disability community regarding ABA. Capstone participants who identified themselves as neurodivergent and/or disabled conveyed the challenges of being openly neurodivergent within the field. Neurodivergent participants stated that some parts of their identities are withheld at work based on the biases that they witness within their professional community. This is a relevant detail to this capstone because the most interested participants in this study are neurodivergent and currently practice in ABA. Concerns regarding open identification with the neurodivergent and disabled community speaks to the biases present within the field. Ignoring these biases has proven ineffective in other areas of human service education and helping professions. Integrating direct active work toward affirming practices related to disability, gender, and race have proven to foster environments that are supportive, inclusive, and comprehensive.

References

Achievers. (2021, December 28). *5 ways to build a sense of belonging at work*. https://www.achievers.com/blog/sense-of-belonging-work/

Aftab, A., & Chapman, R. (2021, September 24). The neurodiversity paradigm in psychiatry: Robert Chapman, PhD. *Psychiatric Times*. https://www.psychiatrictimes.com/view/neurodiversity-paradigm-psychiatry

Annamma, S. A., Connor, D., & Ferri, B. (2013). Dis/ability critical race studies (DisCrit): Theorizing at the intersections of race and dis/ability. *Race, Ethnicity and Education*, 16(1), 1–31. https://doi.org/10.1080/13613324.2012.730511

Annamma, S. A., Ferri, B. A., & Connor, D. J. (2018). Disability critical race theory: Exploring the intersectional lineage, emergence, and potential futures of DisCrit in education. *Review of Research in Education*, *42*(1), 46–71. https://doi.org/10.3102/0091732X18759041

Autie.Analyst [@autie.analyst]. (n.d.). *Posts* [Instagram Profile]. Instagram. Retrieved May 1, 2023, from https://www.instagram.com/autie.analyst/?igshid=YmMyMTA2M2Y%3D

Autistic Doctors International. (n.d.). *About Us.* https://autisticdoctorsinternational.com/about-us

Baglieri, S., & Lalvani, P. (2019). *Undoing ableism: Teaching about disability in K–12 classrooms*. Routledge.

Bailey, J. S., & Burch, M. R. (2022). *Ethics for behavior analysts* (4th ed.). Routledge.

Beavers, D. (2018, March). Diversity, equity and inclusion framework: Reclaiming diversity, equity and inclusion for racial justice. The Greenlining Institute. http://greenlining.org/wp-content/uploads/2018/05/Racial-Equity-Framework.pdf

Commented [kjn4]: 1, a lot of times crazy long URLs are the result of the search string; sometimes it's possible to find shorter URLs, which is ideal
2, APA no longer requires a retrieval date except for archived items. Did your program request otherwise? https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/reference_list_electronic_sources.html

Behavior Analyst Certification Board. (n.d.-a). *BACB certificant registry*. https://www.bacb.com/services/o.php?page=101135

Behavior Analyst Certification Board. (n.d.-b). *Professional and ethical compliance code for behavior analysts*. https://www.bacb.com/wp-content/uploads/2020/05/BACB-Compliance-Code-english_190318.pdf

Behavior Analyst Certification Board. (2018). *Supervisor training curriculum outline* (2.0). https://www.bacb.com/wp-content/uploads/2022/01/Supervision_Training_Curriculum_230130-a.pdf

Behavior Analyst Certification Board. (2020). *Ethics code for behavior analysts.* https://bacb.com/wp-content/ethics-code-for-behavior-analysts/

Behavior Analyst Certification Board. (2021). *RBT ethics code (2.0).* https://www.bacb.com/w—content/rbt-ethics-code

Behavior Analyst Certification Board. (2022a). *Public statement policies*. https://www.bacb.com/public-statements-policies/

Behavior Analyst Certification Board. (2022b). *About behavior analysis*. https://www.bacb.com/about-behavior-analysis/

Behavior Analyst Certification Board. (2022c). *Supervision, assessment, training, and oversight*. https://www.bacb.com/supervision-and-training/

Behavior Analyst Certification Board. (2023a). https://www.bacb.com/bacb-certificant-data/

Behavior Analyst Certification Board. (2023b). *Board certified assistant behavior analysts (BCaBA)*. https://www.bacb.com/bcaba/

Behavior Analyst Certification Board. (2023c). *Board certified behavior analysts (BCBA)*. https://www.bacb.com/bcba/

Behavior Analyst Certification Board. (2023d). *RBT initial competency assessment packet*. https://www.bacb.com/wp-content/uploads/2020/05/RBT_Competency_Assessment_Initial-230309-a.pdf

Behavior Analyst Certification Board. (2023e). *Registered behavior technician (RBT)*. https://www.bacb.com/rbt/

Behavior Analyst Certification Board. (2023f). *US employment demand for behavior analysts: 2010–2022*. https://www.bacb.com/wp-content/uploads/2023/01/Lightcast2023_230206-a.pdf

Bernard, S., Grosjean, B., and Caravallah, L. (2022). Neurodiversity and early autism. JAMA Pediatrics, *176*(12): 1272–1273. doi.org/10.1001/jamapediatrics.2022.4144Campbell, F. (2009). *Contours of ableism: The production of disability and abledness*. Springer.

Carleton College. (2022, February 10). *About Carleton: land acknowledgement*. https://www.carleton.edu/about/land-acknowledgement/

CAST. (2018). *Universal design for learning guidelines*, version 2.2. http://udlguidelines.cast.org

Center for Antiracist Education (CARE). (2021). *CARE framework*. https://antiracisteducation.org/framework/

Center for Creative Leadership. (2023, April 16). *Understand social identity to lead in a changing world*. https://www.ccl.org/articles/leading-effectively-articles/understand-social-identity-to-lead-in-a-changing-world/

Center for Diversity and Inclusion. (2020, August 12). *Glossary of bias terms*. Washington University in St. Louis Student Affairs. https://students.wustl.edu/glossary-bias-terms/

Center for Intersectional Justice. (2020). *Center for Intersectional Justice: Narrative report*. https://www.intersectionaljustice.org/img/cij_2020-narrative-report_final.pdf

Cernius, A. (2022, May 13). Commentary: The autistic community is having a reckoning with ABA therapy. We should listen. *Fortune*. https://fortune.com/2022/05/13/autistic-community-reckoning-aba-therapy-rights-autism-insurance-private-equity-ariana-cernius/

Chao, D., Badwan, M., & Briceño, E. M. (2022). Addressing diversity, equity, inclusion and belonging (DEIB) in mentorship relationships. *Journal of Clinical and Experimental Neuropsychology*, 44(5–6), 420–440. https://doi.org/10.1080/13803395.2022.2112151

Charlton, J. I. (1998). *Nothing about us without us: Disability oppression and empowerment* (1st ed.). University of California Press. http://www.jstor.org/stable/10.1525/j.ctt1pnqn9

Conners, B. M., & Capell, S. T. (Eds.). (2021). *Multiculturalism and diversity issues in applied behavior analysis: Bridging theory and application.* Routledge.

Cooper, J. O., Heron, T. E, & Heward, W. L. (2014) *Applied behavior analysis.* Pearson/Merrill-Prentice Hall.

Corker, M., & French, S. (Eds.) (1999). *Disability discourse*. Open University Press.

Cox, D. J., Syed, N., Brodhead, M., & Quigley, S. (Eds.). (2023). *Research ethics in behavior analysis: From laboratory to clinic and classroom*. Elsevier.

Cox, W. T. L. (2022). Developing scientifically validated bias and diversity trainings that work: Empowering agents of change to reduce bias, create inclusion, and promote equity. *Management Decision*, *61*(4), 1038–1061. https://doi.org/10.1108/MD-06-2021-0839

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 139–168. https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1052&context=uclf

Creswell, J. W. (2013). *Qualitative inquiry in research design: Choosing among five approaches.* SAGE.

Davis, L. J. (2010). Constructing normalcy. In L. Davis (Ed.), *The disability studies reader* (pp. 4-19). Routledge.

Delve. (n.d.). *Qualitative data analysis software*. Delve. https://delvetool.com/

Delve. (2022, February 11). *Deductive and Inductive Coding*. Delve. https://delvetool.com/blog/deductiveinductive

Delve. (2023, March 22). *How to do thematic analysis*. Delve. https://delvetool.com/blog/thematicanalysis

Dolmage, J. T. (2017). *Academic ableism: Disability and higher education*. University of Michigan Press.

Dwyer P. (2022). The neurodiversity approach(es): What are they and what do they mean for researchers? *Human development*, 66(2), 73–92. https://doi.org/10.1159/000523723

Evans, N. J., Broido, E. M., Brown, K. R., & Wilke, A. K. (2017). *Disability in higher education: A social justice approach.* Jossey-Bass.

Fuentes, M. A., Zelaya, D. G., & Madsen, J. W. (2021). Rethinking the course syllabus: Considerations for promoting equity, diversity, and inclusion. *Teaching of Psychology*, *48*(1), 69–79. https://doi.org/10.1177/0098628320959979

Goodley, D. (2014). *Dis/ability studies: Theorising disablism and ableism*. Routledge.

Gwayi-Chore, M.-C., Del Villar, E. L., Fraire, L. C., Waters, C., Andrasik, M. P., Pfeiffer, J., Slyker, J., Mello, S. P., Barnabas, R., Moise, E., & Heffron, R. (2021, April 15). "Being a person of color in this institution is exhausting": Defining and optimizing the learning climate to support diversity, equity, and inclusion at the University of Washington School of Public Health. *Frontiers in Public Health*, *9*. https://doi.org/10.3389/fpubh.2021.642477

Halder, S., & Assaf, L. C. (Eds.) (2017). *Inclusion, disability and culture: An ethnographic perspective traversing abilities and challenges*. Springer International Publishing. https://doi.org/10.1007/978-3-319-55224-8

Hamilton, L. G., & Petty, S. (2023, February 16). Compassionate pedagogy for neurodiversity in higher education: A conceptual analysis. *Frontiers in psychology*, 14. https://doi.org/10.3389/fpsyg.2023.1093290

Hard, B. M., Dunn, D. S., Musselman, R., Hudson, D. L., & Richmond, A. S. (2022). Designing the introductory psychology course: An evidence-informed framework. In R. A. R. Gurung & G. Neufeld (Eds.), *Transforming introductory psychology: Expert advice on teacher training, course design, and student success* (1st ed., pp. 27–56). American Psychological Association. http://www.jstor.org/stable/j.ctv1w0xchm.7

Kapp, S. K., Gillespie-Lynch, K., Sherman, L. E., & Hutman, T. (2013). Deficit, difference, or both? Autism and neurodiversity. *Developmental Psychology*, *49*(1), 59–71. https://doi.org/10.1037/a0028353

LEAP Institute. (2020a). *About us*. LEAP ABA. https://www.leapaba.org/support

LEAP Institute. (2020b). *Membership community*. LEAP ABA. https://www.leapaba.org/support

LEAP Institute. (2020c). *Support opportunities*. LEAP ABA. https://www.leapaba.org/support

LEAP Institute. (2020d). *Tackling inequity in the field of applied behavior analysis*. https://www.leapaba.org/

Liasidou, A. (2012, April). Inclusive education and critical pedagogy at the intersections of disability, race, gender and class. *Journal for critical education policy studies*, *10*(1), 168–184. http://www.jceps.com/wp-content/uploads/PDFs/10-1-12.pdf

Marshall, B. A. (2020, December). Neurodiversity: The next phase in the diversity discussion. *Public Management*, *102*(12), https://icma.org/articles/pm-magazine/ideals-neurodiversity-next-phase-diversity-discussion

McGee, M. Neurodiversity. *American Sociological Association, 11*(3), August 21, 2012, https://doi.org/10.1177/1536504212456

Middleton, B. (2023, February 28). *I am autistic, and I Love applied behavior analysis (updated)*. You Me Mind Body. https://youmemindbody.com/disabilities/I-am-Autistic-and-I-love-ABA

Mullin, A. E., Coe, I. R., Gooden, E. A., Tunde-Byass, M., & Wiley, R. E. (2021). Inclusion, diversity, equity, and accessibility: From organizational responsibility to leadership competency. *Healthcare Management Forum*, *34*(6), 311–315. https://doi.org/10.1177/08404704211038232

Nieminen, J. H., & Pesonen, H. V. (2022). Anti-ableist pedagogies in higher education: A systems approach. *Journal of University Teaching & Learning Practice*, *19*(4). https://ro.uow.edu.au/jutlp/vol19/ iss4/08

Podlucká, D. (2020). Transformative Anti-Ableist Pedagogy for Social Justice. *Outlines. Critical Practice Studies*, *21*(1), 69–97.

R. (n.d.). *What is R?* The R Project for Statistical Computing. https://www.r-project.org/about.html

Rosenkranz, K. M., Arora, T. K., Termuhlen, P. M., Stain, S. C., Misra, S., Dent, D., & Nfonsam, V. (2021). Diversity, equity and inclusion in medicine: Why it matters and how do we achieve it? *Journal of Surgical Education*, *78*(4), 1058–1065. https://doi.org/10.1016/j.jsurg.2020.11.013

Rosenzweig, R., & Prizant, B. M. (2022, April 1). Guidelines for a more neurodiversity-affirming practice for autism. *Autism Spectrum News*. https://www.autismspectrumnews.org/guidelines-for-a-more-neurodiversity-affirming-practice-for-autism/

Singer, Judy. (1999). “Why can’t you be normal for once in your life?” From a ‘problem with no name’ to the emergence of a new category of difference. In M. Corker & S. French (Eds.), *Disability discourse*, 59–67). Open University Press.

Sins Invalid. (2019). *Skin, tooth, and bone: The basis of movement is our people* (2nd ed.). [Digital version]. https://www.sinsinvalid.org/

Slanzi, C. M., & Sellers, T. (2022). Paying for supervision: Barriers, solutions, and opportunities. *Behavior Analysis in Practice.* Advance online publication. https://doi.org/10.1007/s40617-022-00727-3

Southern Poverty Law Center. (2022). *Social justice standards: The learning for justice anti-bias framework*. Learning for Justice. https://www.learningforjustice.org/magazine/publications/social-justice-standards

Sung, R., & Dries, D. R. (2023). DEIJA views: International conversations in diversity, equity, inclusion, justice, and accessibility. *Biochemistry and Molecular Biology Education*, *51*(1), 6–9. https://doi.org/10.1002/bmb.21683

University of California, San Francisco. (n.d.). *Medical and Social Models of Disability*. Office of Developmental and Primary Care. https://odpc.ucsf.edu/clinical/patient-centered-care/medical-and-social-models-of-disability#pdf

Vaughn, B. E. (2007). *Strategic Diversity & Inclusion Management Magazine*, *1*(1): 11–16. https://diversityofficermagazine.com/diversity-inclusion/the-history-of-diversity-training-its-pioneers/

Walker, N. (2022, July 19). *Neurodiversity: Some basic terms and definitions.* Neuroqueer: The Writings of Dr. Nick Walker. https://neuroqueer.com/neurodiversity-terms-and-definitions/

Appendix A: Glossary

Ableism: “Describes the systemic, structural, historical, and interpersonal discrimination toward people perceived to have disabilities, whether visible, invisible, physical, cognitive, sensory and/or mental disabilities, including people with chronic health conditions. Grounded in negative stereotypes about disability, based on the construction of people without disabilities as the universal superior norm, as well as subjective and discriminatory definitions of ‘healthy,’ Ableism upholds systemic inequities and lack of access to economic, cultural, and political resources, resulting in social exclusion, marginalization, and systemic oppression. Ableism is a system which constructs, depicts, and treats people with disabilities as inferior and less valuable [than] people without disabilities” (Center for Intersectional Justice, 2020, p. 26).

Anti-ableism: The active engagement in learning, collative action, advocacy, and social justice activities devoted to dismantling oppressive systems that target people based on their disability status or neurotype.

Autistic/Autism: This term refers to people who self-identify or those who are diagnosed as autistic. Many autistic adults prefer identity-first language that recognizes that a person’s identity is inclusive of one’s neurotype and that autistic identity cannot be separated from one’s personal identity.

Autism Spectrum Condition (ASC): To move away from the term “disorder,” many advocates and allies in the neurodivergent and autistic communities have adopted “condition,” since the

latter term has less stigma attached to it, thus presenting autism as a naturally occurring neurotype rather than a problematic disorder.

Autism Spectrum Disorder (ASD): This is the DSM-V label for a developmental disability with three criteria for diagnosis, including deficits in social communication, restricted and repetitive interests, and emotional regulation differences. This label is assigned by a diagnostician or medical professional following evaluation or clinical assessment.

Allistic: A term used by autistic people to describe non-autistic people (Vance, 2018).

Neurodivergent: A person is neurodivergent when their neurotype falls outside of what society considers neurotypical. Identities including Attention Deficit Hyperactivity Disorder (ADHD), autism, specific learning disability, acquired neurological condition, apraxia, etc., are conditions that a neurodivergent person may have been diagnosed with or self-identify as.

Neurodiversity: "Refers to the virtually infinite neuro-cognitive variability within Earth's human population. It points to the fact that every human has a unique nervous system with a unique combination of abilities and needs" (Singer, 1998).

Neurodiversity-affirming: Supportive, respectful, equitable, and person-centered practices associated with autonomy, self-determination, dignity, and inclusion that are implemented across contexts and settings. These methods respect a person's learning, communication, behavioral, emotional, and physical needs fostering genuine accessibility and belonging.

Neurodiverse: A group comprised of all types of neurological backgrounds. A group is considered neurodiverse when a variety of different neurotypes are in a community together.

Neurotypical: A person who does not identify as neurodivergent or is not diagnosed with a disability or neurodevelopmental condition. Neurotypical people are not faced with biases related to their cognition or learning needs.

2SLGBTQIA+: 2 Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual

Diversity, Equity, and Inclusion Related Terminology

Accessibility: "The design, construction, development, and maintenance of facilities, information, and communication technology, programs, and services so that all people, including people with disabilities, can fully and independently use them" (Department of Labor, 2022).

Belonging: Every person within a larger community is given the chance to thrive by feeling welcomed, known, included, supported, and connected (Harvard); (Achievers)

Diversity: The wide variety of shared and different personal and group characteristics among human beings (Center for Diversity and Inclusion, 2020).

Equity: Describes equality in outcomes through a recognition of structural differences that render some to have more disadvantages than others. An example of this is accessibility policies

that ensure people with disabilities are entitled to barrier-free work environments (Center for Intersectional Justice, 2018).

Identity: Identities are socially, politically, and historically constructed, meaning that they have been shaped by centuries-long processes of defining societal norms and deviations from these norms. Identity is flexible, contextual, and multi-dimensional, and is shaped by many different factors. Identities are constantly in formation (Center for Intersectional Justice, 2018).

Intersectionality: A theoretical concept, an analytical approach, and a legal and policy tool that captures the various layers of advantages and disadvantages everyone experiences based on societal and structural systems. These systems include racism/colonialism, capitalism, and patriarchy; and their byproducts: classism, homo- and transphobia, cis- and heterosexism, and all other forms of racism. Intersectionality looks at how social categories are interwoven on multiple and simultaneous levels (Center for Intersectional Justice, 2018).

Social identity: Involves the ways in which one characterizes oneself, the affinities one has with other people, the ways one has learned to behave in stereotyped social settings, the things one values in oneself and in the world, and the norms that one recognizes or accepts governing everyday behavior (Center for Intersectional Justice, 2018).

Common Abbreviates Used within Organizations and Literature

DEI/EDI: Diversity, equity, and inclusion

DEIJA: Diversity, equity, inclusion, justice, and accessibility (access)

DEIB: Diversity, equity, inclusion, and belonging

DEIJAB: Diversity, equity, inclusion, justice, accessibility, and belonging

JEDI: Justice, equity, diversity, and inclusion

Appendix B: Recruitment Letter

Hello,

My name is Amanda Pewett. I am a special education teacher, advocate, behavior analyst and a graduate student. As I begin my final year of Vanderbilt's doctoral program in Leadership and Learning in Organizations, I am reaching out to potential partner organizations. As part of the program, students engage with an organization to do a capstone project. The purpose is to allow us, under faculty supervision, to use what we have learned to investigate an area of inquiry important to our partner organization. I am reaching out to determine whether you and your organization would be interested in partnering with me as I research an area of inquiry.

We use a model of evidence-based practice to gather various types of data in a way that will help us understand an area of inquiry for your organization. For the area you want me to examine, I will use several sources of information:

- What I have learned in my courses and my own professional experience
- Information about your organization and the context in which it operates from you and any data you can provide about the organization and its environment
- The perspectives of the key stakeholders of your organization
- The research literature
- Additional data collection such as surveys, interview, and/or focus groups

I hope to be able to help you understand a problem or issue in new ways, provide you with what the current literature says about the problem or issue, and craft recommendations customized for your organization. The project will be completed by December 2022, and I will share ongoing progress and learnings along the way.

Thank you for your time and consideration. I look forward to discussing a partnership that will provide valuable inquiry and tailored suggestions to support your organization and mission.

Regards,

Amanda Pewett

Appendix C: Letter to Potential Participants

Hello,

My name is Amanda Pewett. I am a third-year doctoral student at Vanderbilt University, Peabody College. My research focuses on the neurodiversity paradigm and the development and implementation of neurodiversity-affirming practices within the field of behavior analysis.

I have been a special education teacher for 17 years, working in specialized programs and schools, and public schools. I am passionate about acceptance and inclusion of neurodivergent minds. Eight years ago, I decided to become a behavior analyst, recognizing that my students were typically served by clinicians who rarely interacted with them, and often advocated for procedures and methods that I did not support. I am a deeply invested in allyship and advocacy for my students. I believe that teachers, clinicians, and specialists who work directly with children can provide ethical, equitable, individualized, and person-centered learning opportunities when provided with the tools to be affirming and responsive to student's strengths and needs.

Part of my research includes ethnographic interviews with neurodivergent and neurotypical people who practice within the field of behavior analysis, and Autistic (or otherwise neurodivergent) people who are not involved in behavior analysis.

My capstone partner organization is The LEAP Institute, a non-profit located in Lubbock Texas. LEAP was founded in 2020 by an Indigenous Autistic woman, Dr. Mari-Luci Cerda, a special education teacher and behavior analyst, actively engaged in providing neurodiversity-affirming services grounded in intersectionality, equity, and accessibility for Autistic and otherwise neurodivergent students, who have been historically underrepresented.

I came across your research/work/publication during and would appreciate the opportunity to speak with you about my research, and potentially interview you.

If you are interested in speaking with me, feel free to email me. Thank you for your time and consideration.

Warmly,

Amanda Pewett

Appendix D: Behavior Analytic Community Survey Questions

Demographic Questions

1. Race
2. Gender
3. Age
4. LGBTIA+ status
5. Disability Status
    a. Neurodivergent
    b. Autistic
    c. Non-disabled
    d. Multiple disabilities, including Autism
6. Professional level
    a. Graduate/Practicum Student (Masters, BACB approved course sequence, not yet credentialed)
    b. Novice Clinician Student (<1 to 3 years)
    c. Experienced Clinician (4 to 6 years)
    d. Expert Clinician (7+ years)

Research Focused Questions

1. What is your educational background? For example, did you study ABA across degree programs, or did you pursue education and complete a masters in ABA.
2. How did you become interested in ABA?
3. How did you become interested in ABA for Autistic people?
4. What age group do you primarily serve?

5. Please describe your students and clients in terms of their support needs. For example, my students are primarily non-speaking and work on communication and self-help skills.
6. Have you supervised students and subordinate clinicians?
7. Approximately how many?
8. What modalities do you use for supervision?
9. What tools provided by the BACB do you use for supervision?
10. Have you had any training in diversity, equity, and inclusion?
11. Have you had any training in neurodiversity?
12. Where did you receive your training?
13. Did you complete any training related to neurodiversity through your study of ABA?
14. Have you been trained or supervised by neurodivergent and/or Autistic clinicians?
15. Do you have access to neurodiversity training in your local or online community?
16. Have you had any training in gender diversity?

Appendix E: Survey Questions: Neurodivergent/Autistic/Disabled Community

Demographic Questions

1. Disability status
2. Gender
3. Race
4. Age
5. LGBTQIA+ status

Research Focused Questions

1. Do you have a medical diagnosis or self-identified disability?
2. How did you learn about the neurodiversity paradigm?
3. Have you experienced special education services through an IEP or 504 plan in an American public school?
4. Have you experienced behavior analytic services in your home, school, or community setting?
5. How would you rate your grade schoolteachers' understanding of neurodiversity affirming practices?
6. How would you rate your behavior analysts' understanding of neurodiversity affirming practices?
7. Please indicate neurodiversity affirming practices that you have experienced at school (check all that apply).
8. Please indicate neurodiversity affirming practices that you have experienced in the home or community setting (check all that apply)

9. Please describe neurodiversity affirming practices that benefitted/would have benefited you in school (short answer).
10. Please describe neurodiversity affirming practices that benefit/would benefit you at home/work/community setting (short answer)

Appendix F: Ethnographic Interview Questions

Demographic Questions

1. Race
2. Gender
3. Age
4. LGBTIA+ status
5. Professional Title/Professional Category
6. Years in the field
7. Disability status

Research Focused Questions

Autistic Adult Participants (non-clinician)

1. Do you have a medical diagnosis of Autism, or do you self-identify as Autistic?
2. What age were you diagnosed, or did you begin your self-identification?
3. What does the term *neurodiversity-affirming* mean to you?
4. How did you come to understand neurodiversity?
5. Please describe neurodiversity affirming practices that have helped you in school, community, work, and home settings.
6. How did you come to learn and understand these practices?
7. Who has supported you in the discovery and implementation of neurodiversity affirming practices?
8. Do you feel comfortable communicating your disability status across settings?
9. Do you encounter barriers to accessing accommodations and modifications that include neurodiversity affirming practices?

Autistic Adult Participants (clinician or student)

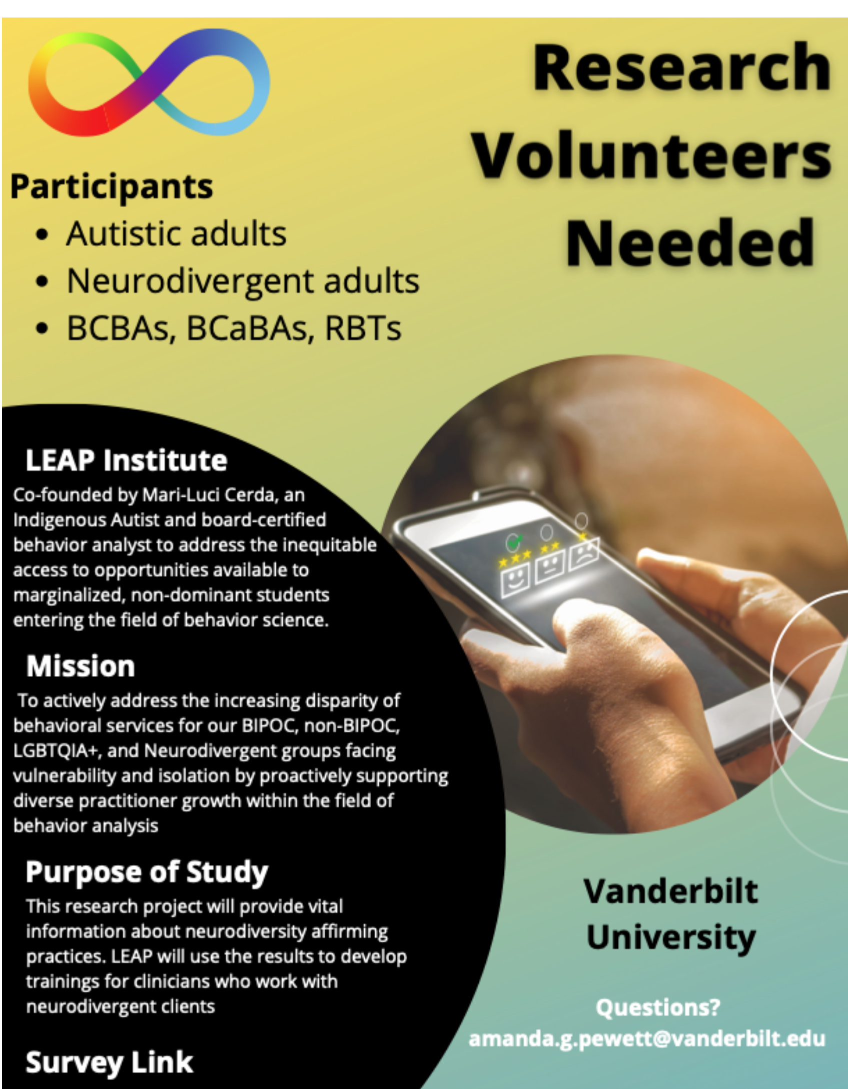
1. Do you have a medical diagnosis of Autism, or do you self-identify as Autistic?
2. What age were you diagnosed, or did you begin your self-identification?
3. What does the term *neurodiversity affirming* mean to you?
4. How did you come to understand neurodiversity?
5. Please describe neurodiversity affirming practices that have helped you in school, community, work, and home settings.
6. How did you come to learn and understand these practices?
7. Who has supported you in the discovery and implementation of neurodiversity affirming practices?
8. Do you feel comfortable communicating your disability status across settings?
9. Do you encounter barriers to accessing accommodations and modifications that include neurodiversity affirming practices?
10. Are you openly Autistic in your ABA community setting?
11. Do you experience behavior that is accepting and accommodating in your ABA community?
12. What types of behavior from your colleagues and instructors is neurodiversity affirming?
13. Are you met with resistance when you express personal needs for neurodiversity affirming supports, or advocate for its use with your students/clients?

Clinician or Student

1. How did you come to learn about neurodiversity?
2. What is your definition of neurodiversity?

3. In what format or modality did you participate the most in your study of neurodiversity? For example, social media groups, university coursework, practicum experience, independent study, or other types of learning?

Appendix G: Recruitment Flyer 1



Appendix H: Instagram Post 1 – image series

SHARE YOUR PERSPECTIVE

PARTICIPANTS

- Autistic people
- Neurodivergent people
- RBTs, BCaBAs, BCBAs

PARTNER ORG

- The LEAP Institute
- @AutieAnalyst

SURVEY LINK

Appendix I: Instagram Post 2 – image series

SHARE YOUR PERSPECTIVE!
If you are Autistic, Neurodivergent, and/or an ABA professional, we want to hear from you!

What do **BCBAs** know about **neurodiversity**?

Why are you recruiting **Autistic** and **Neurodivergent** people, **& BCBAs**?

Lived Experiences

We want to amplify the voices of Autistic and Neurodivergent people about what is helpful and harmful at school, work and in the community.

Intersectionality

This research is designed to consider the intersectionality of identities, and how our positionality impacts what we think and what we do.

What next?

The results of this research project will provide us with relevant information about the depth and breadth of understanding about neurodiversity in the ABA community

The LEAP Institute

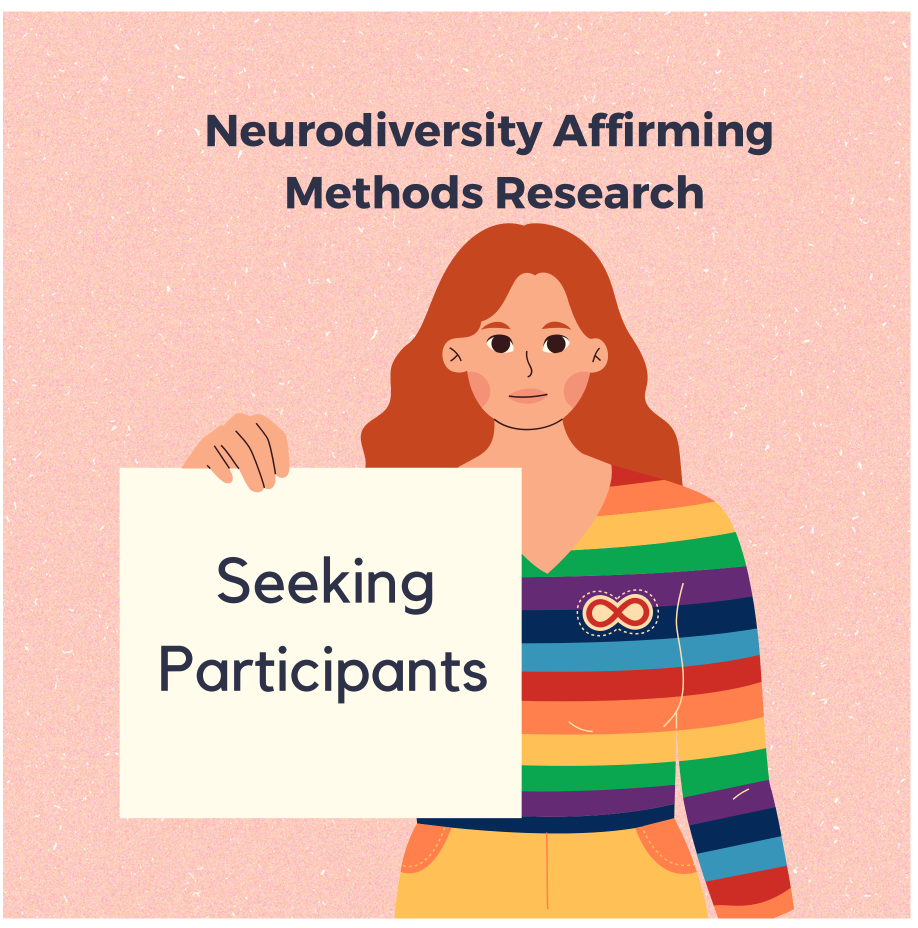
I am working with **The LEAP Institute** for my capstone project. Together we determined the key questions to address in my research. LEAP will use my findings to **develop comprehension supervision training** for BCBAs. We want to help BCBAs implement their **supervision and mentorship through a neurodiversity affirming lens.**

Questions?

Contact: amanda.g.pewett@vanderbilt.edu

Survey Link

Appendix J: Instagram Post 3 – image series



SHARE YOUR PERSPECTIVE!

Through interview and focus groups, participants will be able to share their unique perspectives about neurodiversity affirming practices

Participants

- Autistic people
- Neurodivergent people
- RBTs, BCaBAs and BCBAs

Why?

We hope to learn what behavior analysis professionals know about neurodiversity affirming practices AND learn directly from Autistic and Neurodivergent people

About the Project

Partner Org
The LEAP Institute

Doctoral Program
Vanderbilt University, Peabody College

Register Now
Complete this form to sign up

Questions?

amanda.g.pewett@vanderbilt.edu

Appendix K: Facebook Post Flyer

Appendix L: Facebook and Instagram Cross-Posted Flyer

Appendix M: Facebook and Instagram Cross-Posted Flyer 2

Volunteers Needed to Complete Virtual Survey

- Autistic adults (18+)
- Neurodivergent adults
- BCBAs, BCaBAs, RBTs

Interested?

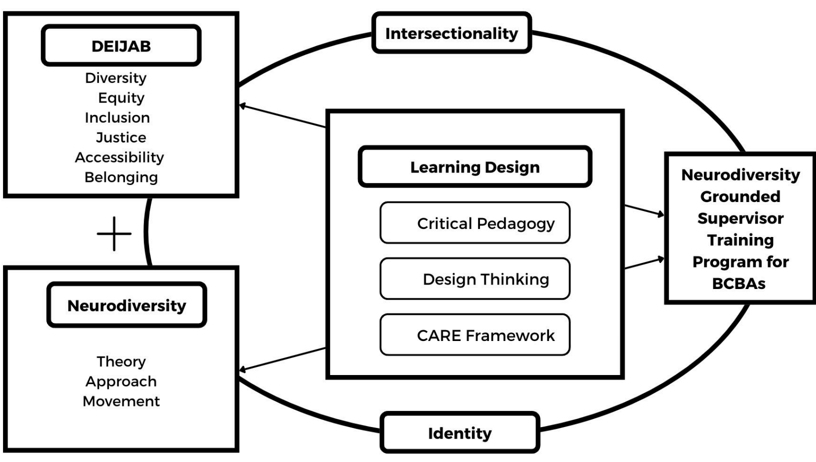
The LEAP Institute

Founded in 2020 by Mari-Luci Cerda, an Indigenouse Autistic woman. LEAP will use findings to develop supervision training for BCBAs focused on Neurodiversity affirming practices.

Questions? Contact:

amanda.g.pewett@vanderbilt.edu

Appendix N: Conceptual Framework



Appendix O: Neurodiversity Definition Rubric

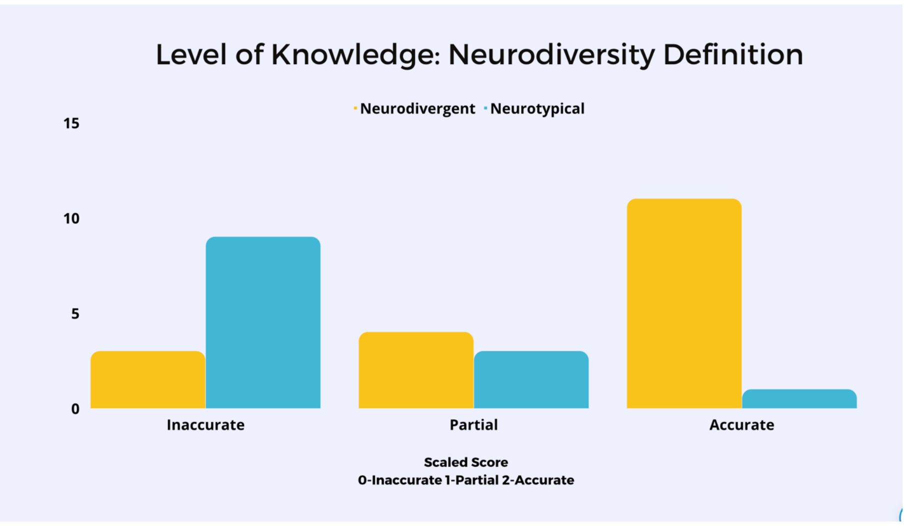
Neurodiversity Definition Rubric

SCORING PROCESS

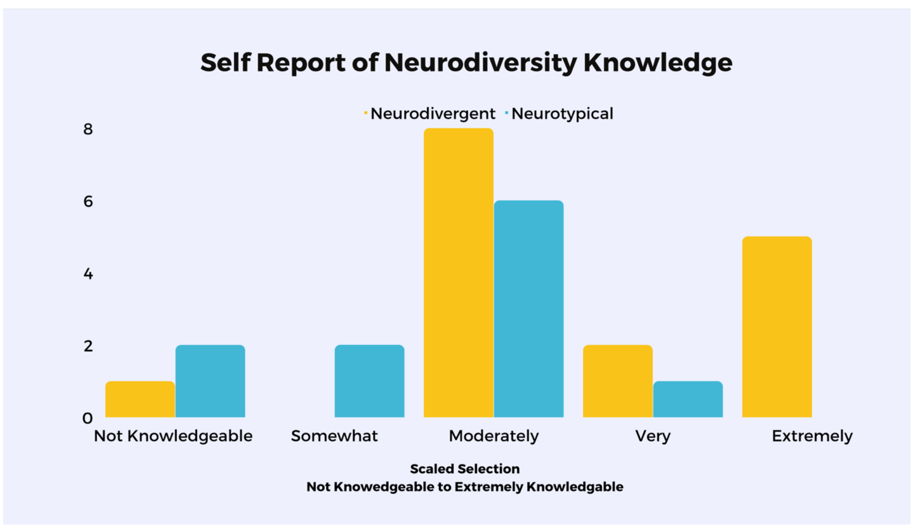
Responses scored using a 3 point scale. Points assigned based on accuracy and specificity compared to the recognized definition generated by Singer in 1994.

ACCURATE 2	PARTIAL 1	INACCURATE 0
"Variation in the human brain. It's a different way of thinking, learning and processing."	"It's means you operate different than what is typical."	"A blessing and a curse."

Appendix P: Level of Knowledge: Neurodiversity Definition



Appendix Q: Self Report of Neurodiversity Knowledge



Appendix R: Social v. Medical Model Disability Rubric

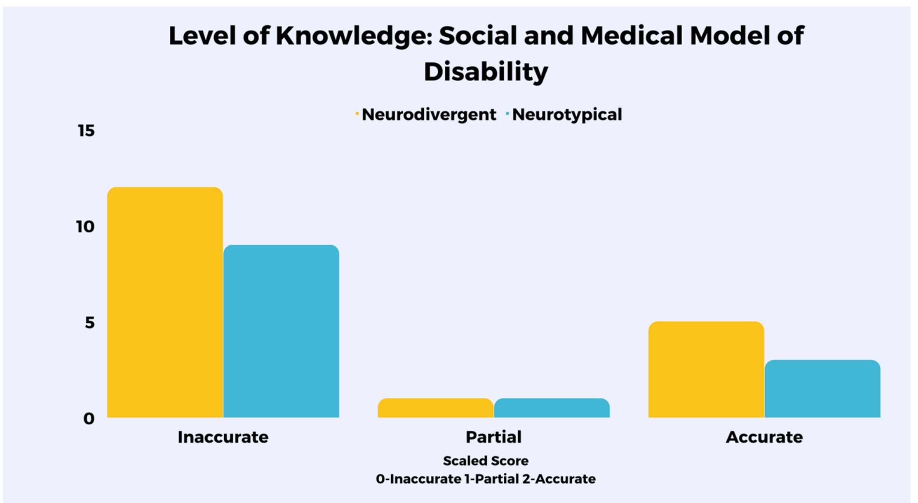
Social v. Medical Model Disability Rubric

SCORING PROCESS

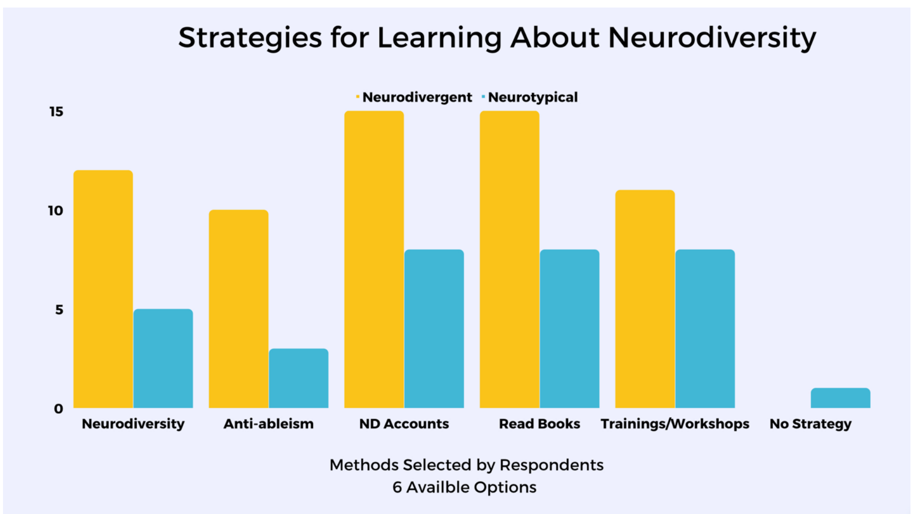
Responses scored using a 3 point scale. Points assigned based on accuracy and specificity compared to the recognized definition generated by Singer in 1994.

ACCURATE 2	PARTIAL 1	INACCURATE 0
"Medical model looks at deficits and social model looks at skills and strengths."	"Medical model requires a medical diagnosis and treatment from medical providers to remediate systems. In a social model is non-medical support.	"Services are deemed medically necessary treatment ."

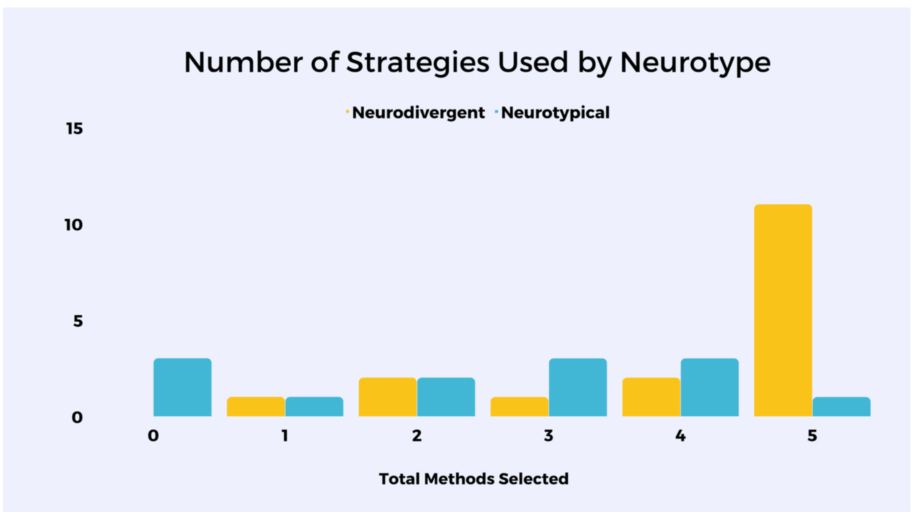
Appendix S: Level of Knowledge: Social and Medical Model of Disability



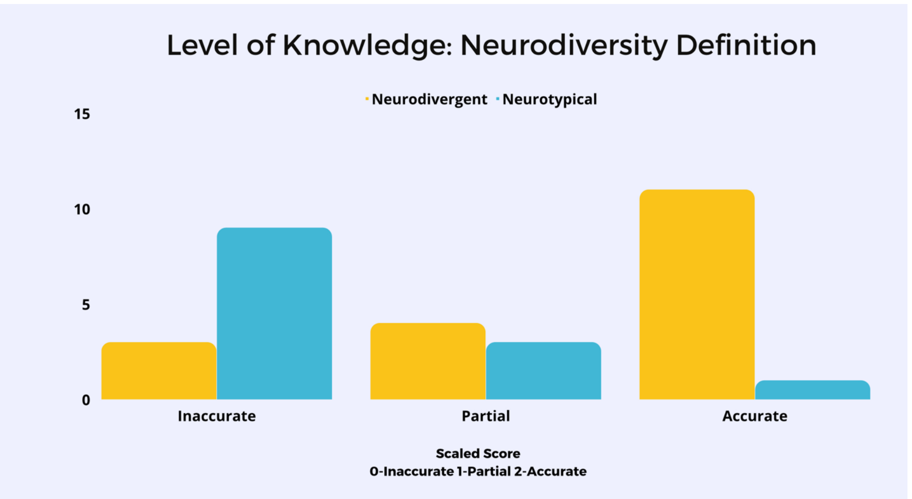
Appendix T: Strategies for Learning About Neurodiversity



Appendix U: Number of Strategies Used by Neurotype



Appendix V: Level of Knowledge: Neurodiversity Defintion

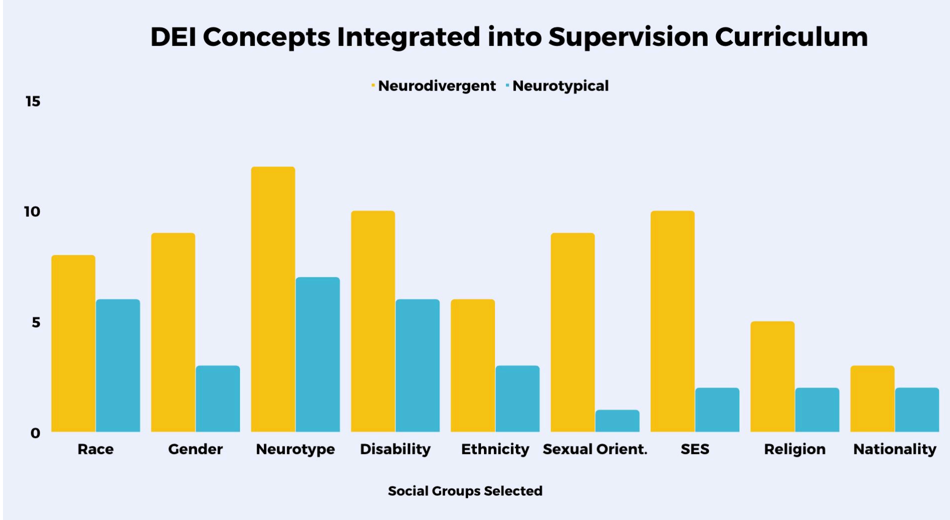


Appendix W: Self-Reported Neurodiversity Affirming Methods

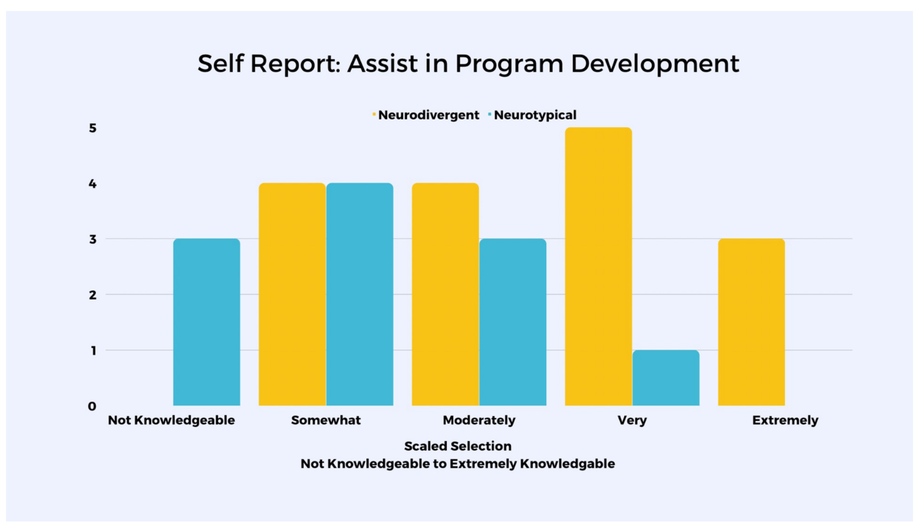
Self-Reported
Neurodiversity-Affirming Methods

Examples Shared	Assent	Client Led	Neurotype
1	Focus on self-advocacy skills	Remove focus from compliance	Supporting sensory needs
2	Using a trauma-informed approach	Do not use escape extinction	Never block stimming
3	Practice with compassion	Encourage special interests	Honoring all types of play
4	Honor "no" always	Focus on what is important to the client	Understand different perscpetives
5	Include clients in the behavior plan development	Ask what client wants help	Multi-modal communication

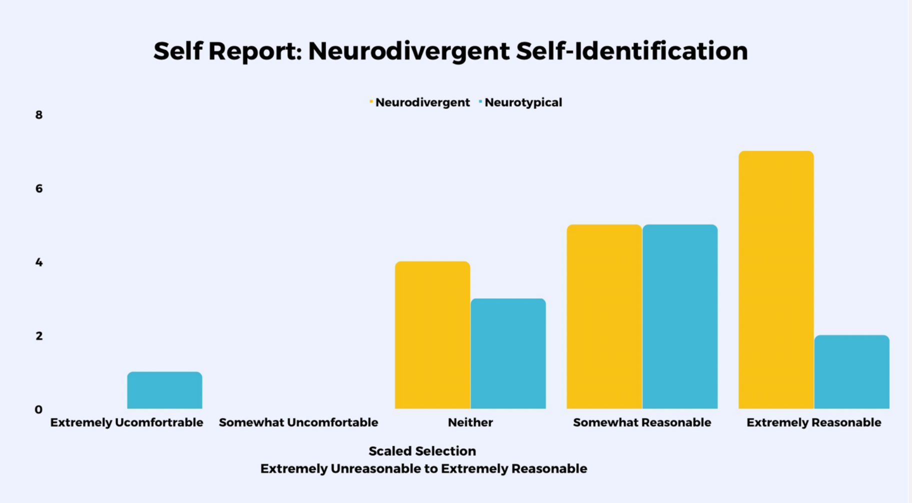
Appendix X: Social Identities Integrated into Supervision Practices



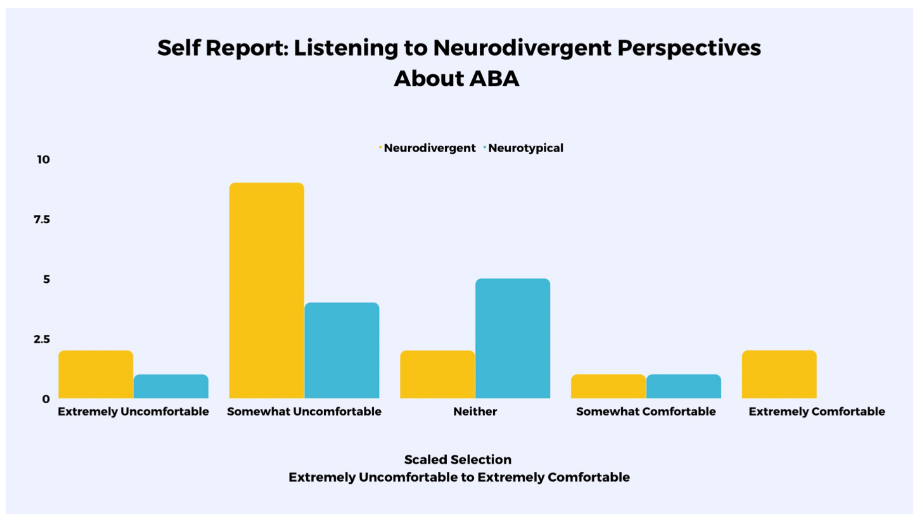
Appendix Y: Self Report: Assist in Program Development



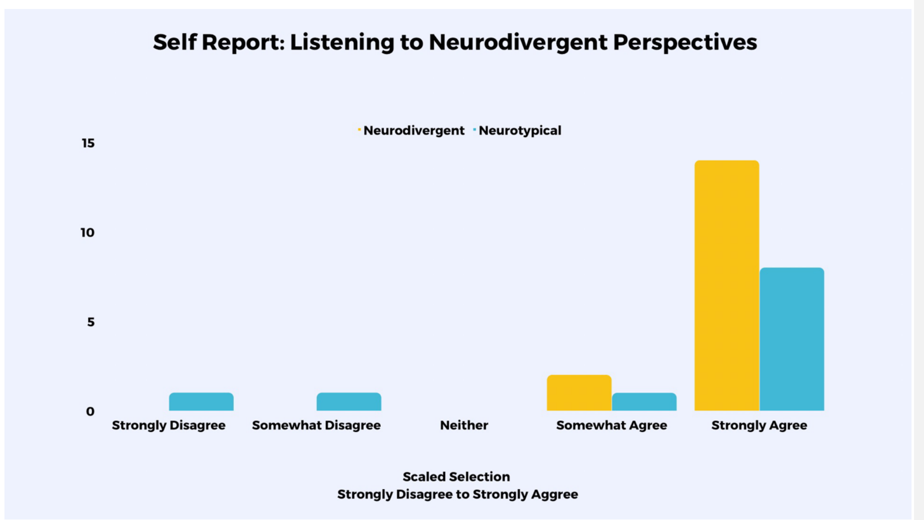
Appendix Z: Self Report: Neurodivergent Self-Identification



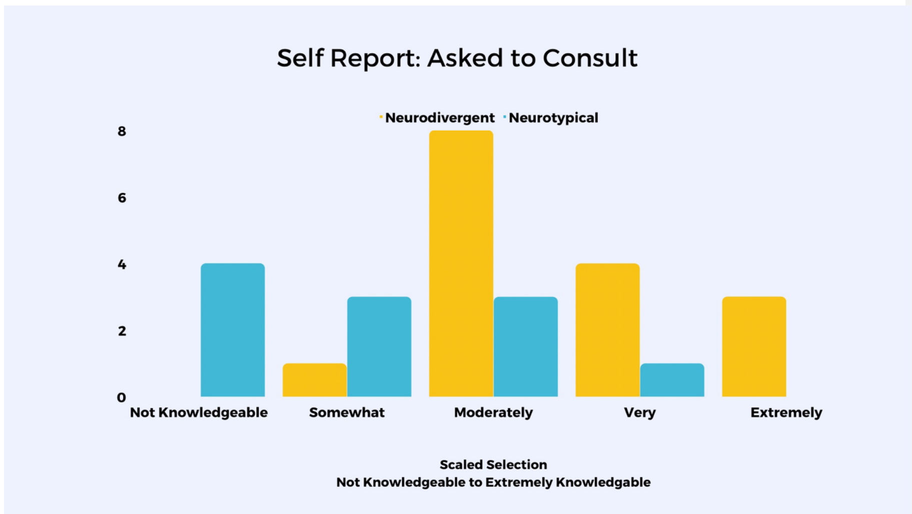
Appendix AA: Self Report: Listening to Neurodivergent Perspectives About ABA



Appendix BB: Self Report: Listening to Neurodivergent Perspectives



Appendix CC: Self Report: Asked to Consult



Appendix DD: Complete List of Likert Scale Survey Questions for ABA Clinician Group (both neurotypical and neurodivergent)

Question	Scaled Choices
A potential client asks me to describe neurodiversity affirming/responsive practices that I use with my current client	1. Not knowledgeable at all 2. Somewhat knowledgeable 3. Moderately knowledgeable 4. Very knowledgeable 5. Extremely knowledgeable
A client asks you to help them create a toolbox of neurodiversity affirming/responsive strategies for home/work/school based on their needs, skills, interests, and/or values	1. Not knowledgeable at all 2. Somewhat knowledgeable 3. Moderately knowledgeable 4. Very knowledgeable 5. Extremely knowledgeable
You are called to consult with a client at their home/school/job/community setting to identify Neurodiversity affirming/responsive practices as an alternative to current practices	1. Not knowledgeable at all 2. Somewhat knowledgeable 3. Moderately knowledgeable 4. Very knowledgeable 5. Extremely knowledgeable
To meet the needs of my clients I collaborate with professionals in other fields (e.g., speech, OT, PT, mental health).	1. Never 2. Sometimes 3. About half the time 4. Most of the time 5. Always
Listening to the lived experiences of Autistic and Neurodivergent people improves my practice	6. Strongly disagree 7. Somewhat disagree 8. Neither agree nor disagree 9. Somewhat agree 10. Strongly agree
Listening to Autistic and Neurodivergent perspectives about ABA makes me feel…	6. Extremely uncomfortable 7. Somewhat uncomfortable 8. Neither comfortable no uncomfortable 9. Somewhat comfortable 10. Extremely comfortable
Hiring Neurodivergent and Autistic consultants or trainers to work with me individually, or with my organization is	1. Not at all important 2. Slightly important 3. Moderately important 4. Very important 5. Extremely important
Centering Autistic and Neurodivergent people by listening to their lived experiences (e.g., reading their work, engaging on social media, listening to podcasts, attending trainings/workshops etc.) is…	1. Not at all important 2. Slightly important 3. Moderately important 4. Very important 5. Extremely important

Many Autistics and Neurodivergent people accept/honor/support approaches to make communication accessible that do not meet the standard of evidence based practice (e.g., facilitated communication, spelling to communicate, rapid prompting etc.). This makes me feel…	1. Extremely uncomfortable 2. Somewhat uncomfortable 3. Neither comfortable no uncomfortable 4. Somewhat comfortable 5. Extremely comfortable
Many Autistics and Neurodivergent adults self-identify (No medical diagnosis). I believe that this decision is…	1. Extremely unreasonable 2. Somewhat unreasonable 3. Neither reasonable nor unreasonable 4. Somewhat reasonable 5. Extremely reasonable