

DIVERSITY, EQUITY, JUSTICE, AND INCLUSION COMPETENCIES FOR PRESERVICE
BEHAVIOR ANALYSTS: A MODIFIED DELPHI STUDY

by

DANA COHEN LISSMAN

A DISSERTATION

Presented to the Department of Special Education and Clinical Sciences
and the Division of Graduate Studies of the University of Oregon in partial
fulfillment of the requirements
for the degree of
Doctor of Philosophy

September 2023

DISSERTATION APPROVAL PAGE

Student: Dana Cohen Lissman

Title: Diversity, Equity, Justice, and Inclusion Competencies for Preservice Behavior Analysts:
A Modified Delphi Study

This dissertation has been accepted and approved in partial fulfillment of the requirements for the Doctor of Philosophy degree in the Department of Special Education and Clinical Sciences by:

Wendy Machalicek, Ph.D., BCBA-D	Chairperson
John Seeley, Ph.D.	Core Member, Advisor
Rhonda Nese, Ph.D.	Core Member
Dianna Carrizales-Engelmann, Ph.D.	Core Member
Lisa Mazzei, Ph.D.	Institutional Representative

and

Krista Chronister	Vice Provost for Graduate Studies
-------------------	-----------------------------------

Original approval signatures are on file with the University of Oregon Division of Graduate Studies.

Degree awarded September 2023.

© Dana Cohen Lissman

DISSERTATION ABSTRACT

Dana Cohen Lissman

Doctor of Philosophy

Department of Special Education and Clinical Sciences

September 2023

Title: Diversity, Equity, Justice, and Inclusion Competencies for Preservice Behavior Analysts:
A Modified Delphi Study

Applied Behavior Analysis (ABA) is a systematic approach that utilizes human learning and behavioral principles to assist individuals and groups in achieving their objectives. Despite the increasing diversity of the US population, the ABA field is predominantly represented by White cisgender women. Existing literature stresses the importance of addressing diversity, equity, justice, and inclusion (DEJI) for marginalized individuals, yet most of it remains at a conceptual level. In a recently modified Delphi study, 90% of the suggested DEJI competencies reached consensus among ABA experts, being deemed important for incorporation into preservice behavior analytic training. The study highlights the necessity to raise awareness among preservice behavior analysts about the impact of oppression on marginalized clients and provides explicit training to challenge inequitable systems. The findings underscore the need for DEJI-focused curricula in preservice ABA programs, paving the way for future research and measurement tools in this vital area.

CURRICULUM VITAE

NAME OF AUTHOR: Dana Cohen Lissman

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

University of Oregon, Eugene

Master of Science, Department of Special Education and Clinical Services, College of Education, University of Oregon

Bachelor of Education, Early Childhood Special Education, Hakibutzim College, Tel-Aviv, Israel

DEGREES AWARDED:

Doctor of Philosophy, 2023, Special Education and Clinical Services, University of Oregon

Master of Science, Special Education and Clinical Services, Early Intervention, 2010, University of Oregon

Batchelor of Education, Special Education, Early Childhood Development, 2006, Kibutzim College, Tel-Aviv, Israel

AREAS OF SPECIAL INTEREST:

Diversity Equity Justice and Inclusion in Special Education and Higher Education

Family Schools Partnerships

PROFESSIONAL EXPERIENCE:

Behavior consultant, Ministry of Education, Tel-Aviv, Israel, 2013–2018

Early childhood special education behavior analyst, Ministry of Education, Tel-Aviv, Israel, 2012–2016

GRANTS, AWARDS, AND HONORS:

Travel award, University of Oregon, The College of Education, 2021

Travel award, University of Oregon, The College of Education, 2021

Alumni Scholarship, University of Oregon, The College of Education, 2021

Graduate School Virtual Opps Award, University of Oregon, Graduate School, 2021

The Gillesse Scholarship, University of Oregon, The College of Education, 2020

General University Scholarship, University of Oregon, 2020

Maalot Scholarship: A full merit-based scholarship for community involvement and leadership, Hakibutzim College, 2002–2008; selected for accelerated program for exceptional young educators.

PUBLICATIONS:

Cohen Lissman, D., Cartee, M., Rosiek, L.J., & Springer, S. (in press). Moral Injury and moral traps in teaching: Learning from the pandemic. *The Journal of Moral Education*.

Cartee, M., **Cohen Lissman, D.**, & Rosiek, L.J., Donley, K., & DeRosia, N. (2023) Teacher mental health in a global pandemic: Lessons from 2020. *The Teacher Educators' Journal*, 16(1), 1-49.
<https://static1.squarespace.com/static/5b2fca94f7939217ed700824/t/6400ca11942b6f51306119ce/1677773330673/TTEJ+16%281%29+3.2.23.pdf>

Frey, J. A., Small, W. J., Seeley, J. R., Walker, M. W., Feil, G. E, Lee, J., **Cohen Lissman, D.**, Crosby, S., Golly, A., & Forness, R, S. (2022). First Step Next and homeBase: A comparative efficacy study of children with disruptive behavior requiring intensive support. *Exceptional Children*, 8 (2), 205–222
<https://doi.org/10.1177/001440292111062588>

Kato, M., Kittelman, A., Flannery, K. B., & **Cohen Lissman, D.** (2022). Adapting and monitoring daily CICO implementation in high schools. *Preventing School Failure*.
<https://doi.org/10.1080/1045988X.2022.2106933>

Machalick, W., Strickland-Cohen, K., Drew, C., & **Cohen Lissman, D.** (2021). Sustaining personal activism: Behavior analysts as anti-racist accomplice. *Behavior in Practice*.
<https://doi.org/10.1007/s40617-021-00580-w>

DeRosia, N., Donley, K., **Cohen Lissman, D.**, Rosiek, J., Adkins-Cartee, M. R., & Arbuckle, S. (2021). Collaborating to accommodate: Teacher insights about providing SPED and EL services during the COVID-19 pandemic. *Thresholds in Education*, 44(2), 127-144.

Sinclair, J., Reardon, K., Bromley, K. W., Knowles, C., **Cohen Lissman, D.**, & Kunze, M. (2021). Community Conversations: Finding solutions to increase employment for individuals with intellectual and developmental disabilities. *Developmental Disabilities Network Journal*, 2 (1).

Barton, E. E., & **Lissman, C. D.** (2015). Group parent training combined with follow-up coaching for parents of children with developmental delays. *Infants and Young Children*, 28, 220–236. <https://doi.org/10.1097/IYC.0000000000000036>

ACKNOWLEDGMENTS

I want to thank my committee members: Dr. Lisa Mazzei, for her input in this work; Dr. Rhonda Nese, for her support and camaraderie along my journey; Dr. Dianna Carrizales-Engelmann, for consistently believing in me; Dr. John Seeley, for the ongoing support and opportunities to learn; and to my chair, Dr. Wendy Machalicek, for being a role model and guiding me through this process. Words fall short of describing my gratitude to all of you.

To my number one fan, Ariel Lissman, and my three fearless girls: Ella, Inbar, and Ofir.

To my colleagues and friends: Aaron Rothbart, Stacy Arbukle, Mary Adkins Cartee, Sophie and Yoel Everett, Kelly and Steve Menachemson, Gerry and Pam Morgan, Tamar and Royee Shimony, Eitan and Nammit Turgeman, and to all the Israeli community supporting me. To all the participants who devoted their important input for this study. A special thank you to Dr. Jerry Rosiek, who chose to be a mentor for me and introduced me to the field of critical and sociocultural studies in education. This journey would not have been possible without your relentless support.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.....	17
Problem Statement	17
Background of Diversity, Justice, Equity, and Inclusion in Applied Behavior Analysis	18
DEJI in ABA Higher Education Training.....	20
Ethics and Values Guiding Practice.....	25
How Ethical Conduct Overlaps with DEJI.....	27
Suggestions for Preservice Preparation on Ethics and Values.....	28
Ethics and Values Suggested Competencies.....	29
Knowledge.....	29
Application.....	30
Understanding.....	30
Awareness.....	30
Cultural Awareness and Reflective Practices	30
Personal and Professional Identity.....	30
Self-Awareness and Reflective Practices.....	31
Suggestions for Preservice Preparation in Cultural Awareness and Reflective Practices	32
Awareness.....	33
Reflective Practices.....	33
Cultural Knowledge, Cultural Awareness of Other Cultures, and Cultural Humility	33
Cultural Knowledge.....	34
Cultural Awareness of Other Cultures.....	35
Cultural Humility	37

Suggestions for Preservice Preparation in Cultural Knowledge, Cultural Awareness of Other Cultures, and Cultural Humility	38
Cross-Cultural Application	40
Cross-Cultural Applications with Clients and Their Families of Different Racial and Ethnic Backgrounds.....	41
Cultural Applications with Clients and Their Families who Speak Nondominant Languages	44
Cultural Application with Clients from Different Religious and Spiritual Backgrounds	48
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority	48
Suggestions for Preservice Preparation in Cross-Cultural Application	50
Cross-Cultural Applications with Clients and Their Families of Different Racial and Ethnic Backgrounds.....	53
Cross-Cultural Applications with Clients and Their Families who Speak Nondominant Languages Suggested Competencies	55
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority Suggested Competencies.....	55
Cultural Application with Clients from Different Religious and Spiritual Backgrounds and Collaborating with Other Professionals Suggested Competencies	57
Activism to Disrupt Inequitable Systems	58
Suggestions for Preservice Preparation to Disrupt Inequitable Systems	64
Purpose of the Present Study	65

Theoretical Framework	67
The Transtheoretical Model	67
Social Learning Theory	70
Prior Pilot Work	71
The Present Study	74
Research Questions	74
Overview of the Delphi Method	75
II. METHOD.....	77
Panel Selection	78
Sampling Strategy	78
Inclusion and Exclusion Criteria.....	79
Rating Potential Panelists	79
Consent.....	80
Attrition.....	80
Panelists	80
Materials.....	84
Demographic Screening Questionnaire	84
Delphi Survey	85
Experimental Design.....	86
Modified Closed Delphi.....	86
Development of Initial Competencies.....	86
General Procedures	87
Round one.....	87

Rounds Two and Three	88
Analysis.....	89
Thematic Analysis.....	89
Consensus.....	89
Interquartile Range (IQR).....	89
Mode, Interquartile Range, and Percentage of Agreement.....	90
III. RESULTS	91
Introduction.....	91
Data Collection	92
Results.....	93
Which DEJI competencies do practicing board certified behavior analysts (BCBAs) in the ABA field value as important to embed in ABA master’s level preservice training programs?.....	93
Which DEJI competencies do practicing BCBAs in the ABA field deem to be included in the final list?.....	93
Round One	94
Thematic Analysis.....	96
Round Two.....	113
Thematic Analysis.....	113
Round Three.....	119
Summary	124
IV. DISCUSSION.....	126
Ethics and Values.....	130

Cultural Awareness and Reflective Practices	132
Awareness of Other Cultures and Cultural Humility	134
Cross-Cultural Application	137
Disrupting Inequitable Systems	140
Limitations	141
Recruitment and Attrition	141
Experimental Design.....	141
Ranking of Competencies	141
Receiver Operating Characteristic	141
Implications for Preservice Behavior Analyst Training	154
Implication for Practicing Behavior Analysts and Clients	154
Implication for Future Task List	154
Implications for Future Research	154
Scale Development	158
Systematic Review	158
Conclusion	158
References.....	159
Appendix A. Suggested DEJI Competencies.....	184
Appendix B. Demographic Questionnaire	195
Appendix C. Rating Potential Experts	197
Appendix D. Bibliography.....	199
Appendix E. Final Competencies List That Reached Consensus	214

LIST OF FIGURES

Figure	Page
1. Logic Model-Integration of the Transtheoretical and Social Learning Model for Behavioral Change (Bandura, 1971; Norcross et al., 2011)	67
2. Abbreviation of the Methodology Steps.....	87

LIST OF TABLES

Table	Page
1. Definition of DEJI Components	22
2. Demographic Characteristics	83
3. Summary of Consensus of Grouped Competencies by Domain	94
4. Top Scored Competencies per Domain (Based on Means)	95
5. Round One Descriptive Statistics of the Suggested Competencies, Ascending Order of the IQR consensus and the Binary Response	99
6. Thematic Analysis for Round One	104
7. Ranking of Each Competency	108
8. Confirmation of The Reworded Suggestion	114
9. Round Two Descriptive Statistics of the Suggested Competencies	117
10. Round Three Descriptive Statistics of the Suggested Competencies	121
11. IQR for the Domains Across Rounds One, Two, and Three	122
12. Analysis of Inclusion of Competencies Using Binary Responses for the Domains	123
13. Suggested Readings and Assignments	146

CHAPTER I: INTRODUCTION

Problem Statement

The majority of certified behavior analysts at the master's and doctoral level identify as White (70.05%) cisgender females (86.4%), with autism as the leading area of professional emphasis (71.40%; BACB, 2022). When compared with the general population growth trend that indicates, by 2050, 19% of the population will be individuals born outside the United States (Pew Research Center, 2008), these data point to a critical gap between the cultural background of applied behavior analysis (ABA) providers and their clients. With the diversification of the United States, the field of ABA should aspire to train practitioners that will meet the needs of a diverse, multicultural clientele. In 2021, 37.4 of counties in the United States lacked BCBAAs to provide much needed services for students and individuals with disabilities (Yingling et al., 2022). A recent study of ABA professionals revealed, however, that most respondents perceived their training and fieldwork to be inadequate in multiculturalism, suggesting a need for formal standards and improved training (Connors et al., 2019). The current Task List (5, a task list that specifies the benchmark of clinical skills preservice behavior analyst need to meet as eligibility criteria to take the certification exam) for professionals seeking certification as a BCBA does not explicitly address diversity, equity, justice, and inclusion (DEJI) competencies and does not provide sufficient guidance to ABA preservice training programs (Najdowski et al., 2021). This research-to-practice gap contributes to clinicians graduating from their program without the relevant skills to serve an increasingly diverse population (Connors et al., 2019). A systematic approach is needed to better prepare preservice ABA students to navigate interactions between their personal and professional identity while interacting with diverse clients. Najdowski et al. (2021) provided a framework for addressing these issues and recommended a comprehensive list of actions which included curricular revision to ensure that ABA graduate programs design

curriculum and programmatic requirements to establish the awareness, knowledge, skills, and application of best practices in diversity, equity, and inclusion (DEI) areas by preservice practitioners; however, this framework does not include proactive justice actions and is missing actionable, measurable outcomes that would function as a roadmap for embedding DEJI competencies throughout the theoretical and practical training.

Background of Diversity, Justice, Equity, and Inclusion in Applied Behavior Analysis

The ABA field has failed to systematically address DEJI since its introduction as a field of research (Matsuda et al., 2020; Skinner, 1972). Researchers in ABA have leveled criticism at the field's lack of research and practice guidelines explicitly addressing racism and systemic oppression of individuals from historically marginalized groups (Levy et al., 2021). A comparison of the current Behavior Analyst Certification Board (BACB) code of ethics for board-certified behavior analysts (BACB, 2022) with ethical codes and guidelines in other health professions (i.e., National Association of School Psychologists, 2021) suggests that the field of ABA has room to grow in addressing these issues (Kelly et al., 2021). For example, until recently, the BACB ethical standards only addressed race/ethnicity under the categories of discrimination, conflict of interest, and cultural competency (Fong & Tanaka, 2013). In the face of the brutal murders of Breonna Taylor and George Floyd in the spring and early summer of 2020, the field experienced additional scrutiny regarding a failure to incorporate tools that support for practitioners in their obligation to identify, prevent, eliminate, account for, White Supremacy and ¹racism in their roles (Ghezzi et al., 2021) and many scholars reexamined the definition of socially valid goals (Heward et al., 2022). New professional groups have been

¹ White supremacy is defined in this paper as the racial aspects of a worldwide power structure that incorporates an ideology promoting white (in a broad sense) racial superiority and its associated practices (Beliso-De Jesús, & Pierre, 2020).

formed to address B.F. Skinner’s call to “change the world,” and many special issues and published articles wrestled with the research to practice gap and the complexity of addressing racism in research and practices of ABA (Ghezzi et al., 2021; Levy et al., 2021; Machalicek et al., 2021; Pavlacic et al., 2021; Pritchett et al., 2021).

In the updated code of ethics published in January 2022, an additional standard was issued as follows:

Cultural Responsiveness and Diversity – Behavior analysts actively engage in professional development activities to acquire knowledge and skills related to cultural responsiveness and diversity. They evaluate their own biases and ability to address the needs of individuals with diverse needs/ backgrounds (e.g., age, disability, ethnicity, gender expression/identity, immigration status, marital/relationship status, national origin, race, religion, sexual orientation, socioeconomic status). Behavior analysts also evaluate biases of their supervisees and trainees, as well as their supervisees and trainees’ ability to address the needs of individuals with diverse needs/backgrounds. (BACB, 2022, p. 9)

Although these standards are an important and overdue action by the BACB, the standards are still lacking explicit guidance pertaining to justice, equity, and inclusion in addition to diversity (Najdowski et al., 2021). In addition, these items do not yet include observable and measurable competencies linked to these published standards of practice. Observable and measurable competencies linked to these standards and other needs as defined by practitioners in ABA are sorely needed (Donovan et al., 2022). In their newsletter published in March 2022, the BACB reported that the BACB DEI committee reported on a shared agreement that DEI should be included in course verified sequence courses by 2027 (BACB, 2022, p. 3). Furthermore, they

agreed that the DEI content should be embedded through the coursework and not via a standalone course. While this report is also a step on the right direction, it does not yet include specific definition of what constitutes DEI, how these will be translated to competencies, and what will be the benchmarks for mastery. It is also unclear how this call will be translated to the task list that governs the licensure procedure. A recent survey of ABA professionals revealed that the majority of respondents perceived their training and fieldwork inadequate in the area of multiculturalism, suggesting a need for formal standards and improved training in the aforementioned areas (Connors et al., 2019).

DEJI in ABA Higher Education Training

Najdowski et al. (2021) suggested a multifaceted approach for ABA graduate programs that included addressing DEI and anti-racism. At the organizational infrastructure level, the authors stressed the critical importance of achieving a consensus among faculty and staff about the organizational values such that a supportive cultural climate is made explicit and publicly available (i.e., explicit policies and organizational mission statements) and enacted in the daily actions of faculty and staff. They further suggested assessing the cultural climate at baseline and creating a strategic plan to guide ongoing progress monitoring. At the curricular level, Najdowski et al. (2021) defined the essential roles of curricular modification of courses to ensure cultural responsiveness and focus on developing instructors' self-awareness and reflection in addressing racism and issues pertaining to DEI (Arango & Lustig, 2023; Dennison et al., 2019; Miller et al., 2019). Additionally, these authors advocated for the inclusion of courses specific to DEI and anti-racism to deliver content-specific knowledge, as well as planned embedded opportunities to apply the knowledge and use self-reflection skills throughout the academic program. To support these efforts, Najdowski et al. (2021) recommended ongoing training for faculty on multicultural responsiveness and encouraged the recruitment of BIPOC students and

faculty to critically evaluate current policies and implementation. This seminal work needs to be translated to specific goals and develop competencies for preservice ABA practitioners to be implemented and sustained overtime.

Hilton et al. (2021) described a process of an ABA department in which a task force engaged in a dynamic process of identifying goals, implementing change, and evaluating outcomes. This process began by conducting a needs assessment survey with 445 ABA students. Their results revealed the need to adjust the language in the syllabi to be inclusive of preferred pronouns. The findings suggested the need to identify how to incorporate DEI specifics in core courses such as ethics, working in collaboration, assessment, and functional analysis. In addition, faculty were advised to diversify the course readings, case studies and the use of names. Communication was another growth area identified by the survey. Finally, the task force implemented a series of surveys to be regularly administered to students to create a safe environment in which students are encouraged to provide ongoing feedback to improve the climate of the curriculum and department. This process is admirable, yet it is more focused on culturally responsive delivery by faculty to students at the higher education level, and it does not focus on DEJI training standards for preservice ABA providers.

In order to adequately apply standards, the standards must first be defined. Recently, the four components of DEJI were defined by several authors in the field of ABA (Najdowski et al., 2021). See Table 1 below.

Table 1

Definition of DEJI Components

DEJI Components	Current Definition
Commitment to diversity	Representation in research and clinical settings of different race, ethnicities, culture, gender, (dis)abilities, socio-economic status, sexual orientation, and intersectionality (Najdowski et al., 2021).
Biases	Behavior analysts are expected to examine their own history and culture and evaluate how it impacts their overt and covert behavior (Najdowski et al., 2021).
Social justice	Aligns with the value that “all human life is to be universally cherished” (Pritchett et al., 2021, p.1)
Diversity	Behavior analysts shall understand how history impacts current opportunities and providing opportunities that will help individuals overcome past barriers and inclusion as the commitment to addressing any barriers for an individual to participate to their full potential. (Najdowski et al., 2021)

Najdowski et al. (2021) provided a framework for addressing these issues and recommended a comprehensive list of actions, which included curricular revision to ensure that ABA graduate programs design curriculum and programmatic requirements to establish the awareness, knowledge, skills, and application of best practices in DEJI areas by preservice practitioners. More recently, Ortiz et al. (2022) presented preliminary results of a study that explored the impact of culturally responsive service delivery (CRSD) supplements to master’s level course syllabi. These authors provided supplemental resources to six faculty members teaching ABA coursework which resulted in an increase of CRSD content across eight syllabi. This work suggests that targeting ABA training programs as a natural change agent can instigate the desired outcome of increasing CRSD content for preservice ABA practitioners. In order to stipulate a systematic approach for training, there is a need to first identify what should be the guiding competencies that would allow for continually measuring progress and outcomes.

Gatzunis et al. (2022) described a process of using the culturally responsive supervision self-assessment (CRSS) tool to increase supervisors' emphasis of culturally responsive training. These authors provided a definition of the DEI components that should be addressed by supervisors, including (a) cultural competency, (b) cultural humility, (c) cultural awareness, (d) cultural sensitivity, (e) intersectionality, and (f) culturally responsive teaching. Informed by CRSS from other clinical fields (i.e., ASHA), the authors examined the utility and social validity of CRSS for ABA supervision. One limitation mentioned in the study is the lack of benchmarks to determine the mastery level of these cultural responsiveness skills among supervisees. To address this limitation, future training efforts could incorporate standardized benchmarks or criteria for evaluating and assessing the proficiency of preservice behavior analysts in these DEI components.

In their recent publication, Hollins et al. (2023) conducted a literature review to suggest readings that address issues of DEI in the field of ABA. These authors identified 31 readings across six domains: (a) philosophical underpinnings/concepts and principles; (b) measurement, data display, and interpretation/experimental design; (c) BACB compliance code and disciplinary systems/professionalism; (d) behavior assessment; (e) behavior-change procedures/selecting and implementing interventions; and (f) personnel supervision and management. These resources, while critical, are missing the discussion of BCBA's taking on an active role in the disruption of inequitable systems. They also have a limited impact on setting competency goals and measuring students' mastery level of these.

What is needed to prepare compassionate and culturally responsive, humble, behavior analysts and affect positive change in the practice of ABA is a systematic approach to teach students the impact of interactions between their personal and professional identities. The BACB

ethical code, practices of cultural awareness and cultural humility, and behavior analytic practices can be explored to achieve greater cultural awareness and implementation of culturally sensitive practices (Arango & Lustig, 2023). Curricular efforts in preservice behavior analyst programs need to cover content and skill development in the areas of ethics and values guiding practice (Arango & Lustig, 2023; Sullivan-Kirby, 2019), cultural awareness and reflective practices (Alai-Rosales et al., 2022), developing knowledge of other cultures and establishing cultural humility (Kolb et al., 2022), cross-cultural application (Bermudez & Rios, 2020), and activism to disrupt inequitable systems (Donovan et al., 2022). Guiding practitioners through the development of moving from knowledge of ethics and values to self-awareness requires creating opportunities within training and supervision for reflection and skill applications (Fong, 2020; Gatzunis et al., 2022; Melroe & Robbins, 2020). These practices would likely support generalization of practitioners' skills to new clients and within organizations.

The emergence of the current study examining literature and approached to DEI in the process of training preservice behavior analyst emphasized the need for systematic approach addressing these skills (Najdowski et al., 2021). Curricula advancements should aspire to train preservice behavior analyst to work with clients from all populations and nurture the ability to train supervisees in anti-racist and anti-White Supremacy tenets (Gatzunis et al., 2022; Levy et al., 2021). The competencies proposed in this study could serve as an initial measure to address existing gaps. Validated through this research, these competencies offer the potential to train professionals in enhancing access to services for clients and families from diverse populations. If consistently integrated, these competencies can enable future practitioners to recognize both overt and covert elements of White Supremacy in professional environments and actively confront racism when it arises (Levy et al., 2021).

This study served as a first step by identifying DEJI competencies that could provide a road map to facilitate the transition from knowledge of the ethical code to culturally diverse, compassionate practices. The following review of extant literature on the DEJI topic in ABA and relevant fields is provided along with an overview of recommended preservice education and training within each DEJI category. At the end of each of each section, the researcher describes the Competencies as envisioned.

Ethics and Values Guiding Practice

The BACB ethical code was developed to protect consumers and hold behavior analysts to high standards of practice and ethical, moral behavior (Kelly et al., 2019). The current ethical code covers four main tenants: (a) benefits others; (b) treats others with compassion; (c) dignity, and (d) respect, behave with integrity, and ensure their competence (BACB, 2022). The first code was published in 2001, the first revisions occurred in 2016, and the most recent version of the code was published in January of 2022. Prior to the most recent version (BACB, 2023) items related to diversity, equity, and inclusion (DEI) were found under the professional and scientific relationships code 1.c:

Where differences of age, gender, race, culture, ethnicity, national origin, religion, sexual orientation, disability, language, or socioeconomic status significantly affect behavior analysts' work concerning particular individuals or groups, behavior analysts obtain the training, experience, consultation, and/or supervision necessary to ensure the competence of their services, or they make appropriate referrals. (BACB, 2014, p. 5)

In the updated version of the code (BACB, 2022), DEI is covered under code 1.07 cultural responsiveness and diversity and adds:

...They (behavior analysts) evaluate their own biases and ability to address the needs of individuals with diverse needs/ backgrounds (e.g., age, disability, ethnicity, gender

expression/identity, immigration status, marital/relationship status, national origin, race, religion, sexual orientation, socioeconomic status). Behavior analysts also evaluate biases of their supervisees and trainees, as well as their supervisees and trainees' ability to address the needs of individuals with diverse needs/backgrounds. (p. 9)

The addition calls for behavior analysts to examine their own biases, which reflect trends in current literature (Rosenberg & Schwartz, 2019). While the addition might be pivotal to the ABA field, this addition to the ethical code has not yet been translated to guidelines included in the Task List 5 (BACB, 2023) and it is unclear whether and when this next step will be undertaken.

Much has changed in the field of ABA since the first code of ethics was published by the BACB in 2001. In 2001, the BACB issued the *Guidelines for Responsible Conduct for Behavior Analysts* (BACB, 2001) as its first official conduct for ethical behavior. It was published as a set of guidelines for behavior analysts' ethical behavior. In 2016, the board revised the code and titled it *Professional and Ethical Compliance Code for Behavior Analysts*. Rosenberg and Schwartz (2019) suggested that removing the word guideline transitioned the guidelines from a set of directions to a set of enforceable rules. In the latest version published in January 2022, *Ethical Code for Behavior Analysts* (BACB, 2023), the word "compliance" was removed. Still, the current version of the BACB ethical code reflects an emphasis on ethical behavior decision-making rather than enforceable rules (BACB, 2022; Rosenberg & Schwartz, 2019).

Kelly et al. (2021) discussed the process of ensuring that the BACB ethical code was contextualized to fit the programs' culture and ideals and to apply these to daily decision-making. Ethical rules do not provide sufficient guidelines for decision-making on their own (Arango & Lustig, 2023). Applying rules without contextualized fit may result in a mechanical approach that can oversimplify complex situations (Kelly et al., 2021). Ethical guidelines are

broad statements that help transform conceptual beliefs into concrete ethical behavior. Kelly et al. emphasized that no ethical code could address all possible ethical dilemmas. Thus, when there is a novel situation or misalignment between rules, guiding principles must ameliorate the situation. Establishing the guiding principles included a task force that reviewed the literature on ethical guidelines in ABA and then consulted with a group of experts in the ABA field to validate their findings. The five guidelines that came to a consensus include: (a) beneficence, in which the focus is on the beneficiary of the client in case of an ethical dispute; (b) inclusion, in which behavior analysts are responsible for providing services to clients from diverse backgrounds; (c) professional excellence, which refers to ongoing professional development and collaboration with other professions; (d) self-determination, indicating that behavior analysts are committed to promoting client independence; and (e) social justice, or commitment to acting upon inequities for clients.

How Ethical Conduct Overlaps with DEJI

The trend of contemporary ethics suggests that culture (i.e., age, gender, race, culture, ethnicity, national origin, religion, sexual orientation, gender identity, ability status, language, or socioeconomic status) is at the heart of the ethical compass (Brodhead, 2019; Miller et al., 2019; Rosenberg & Schwartz, 2019)—and, as such, overlaps with the construct of diversity: “the practice or quality of including or involving people from a range of different social and ethnic backgrounds and of different genders, sexual orientations, etc.” (Oxford English Dictionary, 2022). The ethical code 1.07 *Cultural Responsiveness and Diversity* (BACB, 2023) calls for practitioners to examine their biases to assure nondiscriminatory practices that promote equity and inclusion (Arango & Lustig, 2023). Experts from the field have repeatedly discussed the centrality of working in collaboration with all relevant stakeholders to obtain cultural knowledge and identify potential contrasts between clients’ culture and items from the ethical code (Castro-

Hostetler et al., 2021; Čolić et al., 2021; Dennison et al., 2019; Fong et al., 2017). Justice is currently not explicitly addressed in the ethical code, yet voices from the field are emerging calling for the field to take actions to disrupt injustices (Deochand & Costello, 2022; Donovan et al., 2022; Levy et al., 2021; Miller et al., 2019; Pritchett et al., 2021; Zarccone et al., 2019). According to Miller et al. (2019), some authors have shown how cultural competency, responsiveness, and cultural humility promote social justice (Deochand & Costello, 2022). Cultural competency, responsiveness, and cultural humility offer social justice as a framework working with cultural and linguistic diverse (CLD) families and Ghezzi et al. (2021) describes how to apply ABA principles to stop police brutality.

Suggestions for Preservice Preparation on Ethics and Values

Similar to Kelly et al. (2021), Rosenberg and Schwartz (2019) emphasized that no code could ever cover all ethical dilemmas, and adhering rigidly to any code may result in an insensitive cultural response. Rule governed ethical behavior does not take context into account (Rosenberg & Schwartz, 2019). In fact, Rosenberg and Schwartz coined the construct *culture always matters*. In doing so the authors challenge the field and call for further research to establish best practices for training that display how culture shapes ethical behavior (Brodhead, 2019). Hence the importance of teaching professionals a solution-focused process. Rosenberg and Schwartz suggested decision-making process that facilitates critical thinking about the potential ethical gaps, identify behaviors' triggers that impacts our ethical process and implement ongoing reflection on suggested solutions, in particular its cultural fit.

Indeed, the new ethical code responded to voices from the field, explicitly guides practitioners to consider all aspects that affect the situation (i.e., race, ethnicity, socioeconomic and immigration status, ability, gender identification, sexual orientations, marital status), and addresses the process of ethical decision-making (BACB, 2023). Their model offers a process of

11 steps that includes: (a) identification of the ethical concern, (b) examining all individuals affected by the issue, (c) gathering information to verify the ethical concern, (d) considering one's learning history and biases, (e) identification of the relevant standards in the ethical code, (f) consulting existing resources that can help the process, (g) brainstorming solutions, (h) evaluating the solutions in adherence with the ethical code, (i) selecting the solution that solves the ethical dilemma so it can be applied in future similar situation, (j) implementing the solution documenting its impact on individuals affected by it, and (k) evaluating the outcomes of the decision. While this is an enormous step toward assuring a contextual fit of ethical choices, it is missing components of social justice such as advocacy and actively removing systemic barriers, and these guidelines are not yet included in the Task List 5 and do not translate to the current ABA training curricula.

Behavior analysts should first and foremost be fluent in the current BACB ethical code. Ethical consideration as described thus is grounded in cultural context. In the ongoing political contexts in which oppression is still rising it is critical that preservice behavior analysts are equipped with the knowledge and skills to carefully navigate the ethical code. Teaching problem-solving skills and decision making to identify potential conflicts would best serve practitioners as they go out to the field. Below are suggested competencies in ethics and values related to DEJI that could be embedded in training programs.

Ethics and Values Suggested Competencies

Knowledge

- Preservice behavior analysts are knowledgeable about the values, ethics, and standards of the profession.
- Preservice behavior analysts demonstrate knowledge of community-based participatory research (CBPR) practices.

Application

- Preservice behavior analysts demonstrate applications of community-based participatory research (CBPR) practices in behavior analytic research that prevent exploitation and harm to vulnerable populations.

Understanding

- Preservice behavior analysts demonstrate understanding of the ways in which their personal and professional values may conflict with or accommodate the needs of diverse clients.

Awareness

- Preservice behavior analysts are aware of their personal and professional limitations in working with diverse clients.

Cultural Awareness and Reflective Practices

Personal and Professional Identity

Individuals' personal and professional identity forms by inner interactions with their values, decision-making, and community expectations (Fitzgerald, 2020). These interactions include dimensions of race, ethnicity, ability status, sexual orientation, gender identity, and religion and shape one's perception and behavior (Donovan et al., 2022). Environmental contingencies such as reinforcement of behavior, values, and beliefs also play a major role in the process of forming identity (Donovan et al., 2022). Private events (e.g., thoughts, emotions) also play an important role in one's awareness and actions. Understanding one's own identity allows a person to understand the motivational operation in place that will temporarily alter both the value of a consequence and frequency of responding (Catagnus et al., 2021). A professional's identity and awareness of their own familial culture play essential roles in mitigating bias in

perceptions about clients, their culture, and decision-making (Fong et al., 2016; Rohrer et al., 2021).

For example, a behavior analyst working with a family that values co-sleeping notices the judgment that this elicits for them. Therefore, preservice programs in behavior analysis have a pivotal, early role in assisting a professional in uncovering awareness of their unique upbringing, the places they have lived, experiences with others, culture, and critical thinking (Dennison et al., 2019). Beaulieu and Jimenez-Gomez (2022) defined awareness as a process of reflection on “(a) our own histories of reinforcement and the groups to which we belong, (b) the cultural variables that impact our behaviors, and (c) the differences between ourselves and others on these variables” (Beaulieu & Jimenez-Gomez, 2022, p. 5). Beulieu and Jimenez-Gomez offered an operational definition of self-awareness as the ability to tact (i.e., label) and discriminate between cultural values.

Self-Awareness and Reflective Practices

The first step to developing cultural awareness is for an individual to become aware of their own cultural backgrounds (Cirincione-Ulezi, 2020). Self-awareness is established by the individual talking with others about their own behavior. This can be done by attending professional communities, supervision, and self-reflection (Fong & Tanaka, 2013; Fong et al., 2022; Konrad & De Souza, 2021; Wright, 2019). Another form of self-awareness can be achieved by being *mindful* of one’s reactions during interactions with a diverse population, noticing the private events (i.e., thoughts, feelings) and how they may impact overt behaviors (Catagnus et al., 2021; Fong et al., 2016). An additional tool for self-awareness is to develop and use a self-assessment checklist. Self-assessment can systematically evaluate cultural values and assess how one’s values may impact one’s perception, contingencies, and service delivery (Beaulieu & Jimenez-Gomez, 2022). Developing self-awareness can help behavior analysts

mitigate personal biases while interpreting the information gathered in the initial stage (Konrad & De Souza, 2021). Self-awareness is not only necessary to identify cultural gaps; it helps practitioners to understand how clients establish trust, what their help-seeking behaviors are, what contingencies may be in place, and which behaviors are socially acceptable and socially desired behaviors (Olsen & Kelly, 2020). By investigating the client's values as a part of establishing awareness, a behavior analyst can learn about client's perception of health services and ABA in particular. Understanding one's own bias is essential for the field to move forward (Beaulieu & Jimenez-Gomez, 2022; Fong et al., 2016; Levy et al., 2021). In addition to understanding and mitigating bias, practitioners should develop cultural awareness of others (Olsen & Kelly, 2020).

Completion of self-awareness requires self-determination. Self-determination refers to an individual's ability to make choices, set goals, and take actions that lead to the fulfillment of their desires and aspirations. It is a fundamental aspect of human autonomy and involves being in control of one's own life, making independent decisions, and taking responsibility for the consequences of those decisions. The connection between self-determination and awareness of others lies in their complementary nature. When individuals have a strong sense of self-determination, they are more likely to be emotionally and mentally balanced, which enables them to be more receptive to the experiences of others (Shogren, 2011).

Suggestions for Preservice Preparation in Cultural Awareness and Reflective Practices

Preservice preparation provides a plethora of opportunities to gain cultural awareness and reflective practice skills. Explicit teaching of reflective listening and self-reflection could be embedded in courses such as ethics, behavior assessment, behavior change, and supervised experiences. The current investigator suggests the following competencies:

Awareness

- Preservice behavior analysts demonstrate self-awareness of their own personal, cultural values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.

Reflective Practices

- Preservice behavior analysts acknowledge and reflect on the sources of implicit and explicit bias, and practice ways to counter these biases.
- Preservice behavior analysts acknowledge and reflect on the historical and cultural context different clients and colleagues bring to the team, particularly those systematically excluded from research and intervention.
- Preservice behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values, and practices and demonstrate practices that minimize their imposition of these beliefs, values, and practices onto their clients.
- Preservice behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values, and practices and demonstrate practices that minimize their imposition of these beliefs, values, and practices onto their clients.

Cultural Knowledge, Cultural Awareness of Other Cultures, and Cultural Humility

Behavior analysts work with a variety of clients in various contexts and support a variety of natural change agents to implement interventions (Martinez & Mahoney, 2022; Rohrer et al., 2021). Prediction of population growth indicates that by 2050 foreign borne population will increase from 13.6% to 19% of the U.S. population (Pew Research Center, 2008). The Hispanic population is expected to increase from 14% of the U.S. population to 29% by 2050. Asian decent is expected to increase by 4% by 2025 (Pew Research Center, 2008). With such predictions, behavior analysts will increasingly encounter diversity of clients they work with

requiring a working knowledge of various cultures other than their own (Heward et al., 2022). Behavior analysts need to expand their cultural knowledge to cultural awareness of others and develop cultural humility to become culturally responsive practitioners that meet the needs of increasingly diverse multicultural and multiracial society in the United States (Connors, 2020; Martinez & Mahoney, 2022).

Cultural Knowledge

Cultural knowledge is defined as the mental aspects of a particular culture, including the values, rules, and attitudes (Beaulieu & Jimenez-Gomez, 2022; Fong et al., 2016; Levy et al., 2021). It includes intentional learning about a specific group and actively seeking opportunities to learn about the unique contingency of the group (Beaulieu & Jimenez-Gomez, 2022; Danso, 2018; Gatzunis et al., 2022). The first step of becoming a compassionate caring practitioner is acquiring cultural knowledge about cultures different from the culture of the practitioners. Cultural knowledge in the current climate in the United States needs to include education about the history of exclusion and oppression, as well as its expression in current systems and its present impact on marginalized groups (Capell & Sevon, 2020).

Ethically, behavior analysts are required to identify their biases towards clients from cultures other than their own (Arango & Lustig, 2023; BACB, 2022). This process cannot be fulfilled without a deep understanding of and identifying current practices that are perpetuating systemic racism, resulting in lack of timely comprehensive access to services (Burkett et al., 2015; Capell & Sevon, 2020; Castro-Hostetler et al., 2021; Čolić et al., 2021). Examples include developing topographies of behaviors, defining socially significant behaviors (Capell & Sevon, 2020), adapting assessments to non-English-speaking clients (Dennison et al., 2021), and identifying the contingencies in place (Donovan et al., 2022). Addressing the mistrust expressed

by minoritized and linguistically diverse clients should be prioritized to move the field forward (Banerjee et al., 2022).

Cultural Awareness of Other Cultures

Cultural knowledge involves research and factual knowledge about your culture and the culture of others'. Cultural awareness is a broader based, more meta evaluation of the role culture plays in your perspective and the perspective of others. This can range from an initial concept of awareness that there will be a distinction between cultures and/or a cultural variable present in your professional activities, to a comprehensive and intentional evaluation of the differences that are known to exist between cultures as well as those perceived by the individuals you are serving professionally (Čolić et al., 2021; Deochand & Costello, 2022; Jaramillo & Nohelty, 2021).

Developing cultural awareness of others requires an intentional and systematic inquiry of the client's culture (Čolić et al., 2021; Deochand & Costello, 2022; Jaramillo & Nohelty, 2021). This process may allow behavior analysts to identify potential barriers to selecting socially significant behavior (Deochand & Costello, 2022; Kolb et al., 2022) set reasonable expectations from the client, identify differences in emotional expression and ways of communication, and allow for appropriate modification to the assessment and intervention process (Fong et al., 2016). Relevant informants are determined by the client and/or the client's family, and these informants should be involved in the entire process, particularly during the assessment and intervention design development (Deochand & Costello, 2022; Rohrer et al., 2021).

Developing deeper cultural awareness beyond one's own culture or beyond the dominant culture requires the practitioner to listen carefully to clients' input (Capell & Sevon, 2020; Kolb et al., 2022). When the practitioner takes the role of the listener, it is a critical component of communication. The listener is expected to mediate the reinforcement to the speaker holding different histories, prejudices, and stereotypes (Hugh-Pennie et al., 2021). Behavior analysts

must recognize their role as listeners and work hard to dismantle their biases while overcoming their private events to stay focused on the speaker's voice. It is best practice for the listener to refrain from making cultural assumptions and right versus wrong paradigm during communication with others (Baires et al., 2021).

Cultural Humility

Cultural humility is defined as a lifelong process of systemic learning in which an individual recognizes the need to learn about one's culture, rather than making assumptions (Beaulieu & Jimenez-Gomez, 2022; Wright, 2019). No program can effectively teach preservice professionals about each and every culture and this approach of a "culture a week" can easily lead to overgeneralization, bias, and maintenance of stereotypes (Beaulieu & Jimenez-Gomez, 2022; Fong et al., 2016, 2017). To avoid these harms and inadequate preparation, behavior analytic programs have advocated for assisting professionals in developing a practice of cultural humility instead (Fisher-Borne et al., 2015; Wright, 2019).

Cultural humility emphasizes that cultural awareness and sensitivity are lifelong processes; one cannot master knowledge about all existing cultures (Foronda, 2020). Thus, behavior analysts are encouraged to constantly inquire about each of their client's cultures and not assume anything based on prior knowledge, as that may be missing the nuances of that client (Fong et al., 2016; Wright, 2019). Fisher-Borne et al. (2015) made the distinction between the goal of cultural competency for the practitioner to become comfortable with the "other," whereas the goal of cultural humility is for the practitioner to become self-aware of the existing power imbalances between the provider and the client and how those shape one's biases towards them (Bermudez & Rios, 2020; Foronda, 2020). They further emphasized that many cultural competency models fail to account for the impact of systemic racism on current social inequalities, impacting one's values, desires, emotional capacity, and behaviors. These authors

stated that some cultural competency models focus on race and ethnicity and ignore the intersectionality of each individual and the impact of these on one's culture. Lastly, Fisher-Borne et al. offered a model that includes both the individual and systemic level for cultural humility (Gatzunis et al., 2022). They made the distinction between essential critical self-reflection questions such as "What are my cultural identities?" and essential questions to address power imbalances such as "What social and economic barriers affect a client's ability to receive effective care?" (Fisher-Borne et al., 2015, p. 176). Wright (2019) discussed how to use Fisher-Borne et al. as a self-management tool. Using the principles of "(a) a clear definition, (b) data collection and analysis, and (c) delivery of consequences" (Wright, 2019 p. 806), the author suggested that ABA as a field can and should adapt cultural humility in both practice and research (Kolb et al., 2022; Wright, 2019). In their concept analysis, Foronda et al. (2016) depicted the attributes of cultural humility: (a) openness, or willing to explore new concepts; (b) self-awareness, or being aware of one's culture and biases; (c) being egoless; (d) supportive interactions-creating connections to result in positive exchange; and (e) self-reflection and critical thinking, or one's ability to self-identify values, beliefs, or biases and find ways to mitigate these by critical thinking (Kolb et al., 2022) . These traits were identified across all occupants in the field of healthcare. Leaders in the field of ABA may consider reviewing how these traits can be applied to ABA research and find ways to embed them in ABA training.

Another fundamental ingredient for developing knowledge and cultural humility is developing interpersonal, compassionate skills. Engaging caregivers and actively listening to them is a cornerstone of compassion, and these actions have been proven to increase treatment adherence (Rohrer et al., 2021; Taylor et al., 2019). Compassionate care is compromised from perspective taking (i.e., empathy) and compassion, which entails an action (i.e., sympathy) to

elevate suffering (Rohrer et al., 2021). Taylor et al. (2019) surveyed caregivers on three scales composing compassion; listening and collaboration, empathy and compassion, and “negative” behaviors of the behavior analysts that could hinder the therapeutic relationship (LeBlanc et al., 2020). These authors found that caregivers agreed with competencies such as role clarification and inquiring about caregivers’ satisfaction. Low scores (i.e., disagreement) were found regarding caring about the family as a unit, acknowledgment in case of a mistake or a failure, and demonstrating patience and comfort. Barriers presented by the behavior analyst were categorized as having a rigid agenda, defaming caregivers in the process of programing, and misjudging their child’s ability. Thus, there is room for embedding skills’ training in preservice training. Explicit training of cultural humility and compassionate care would allow future practitioners to work successfully and empathetically with clients and families from all backgrounds, races, and ethnicities with awareness of the individual, structural, systemic, and institutional contributors to racism and other exclusionary practices that serve to detract from the services practitioners are intending to provide (LeBlanc et al., 2020; Taylor et al., 2019).

Suggestions for Preservice Preparation in Cultural Knowledge, Cultural Awareness of Other Cultures, and Cultural Humility

The key to cultural knowledge of others is to actively learn the experience of their clients, their values, what constitutes social significant goals, and corresponding behaviors. Based on this review, as well as on emerging knowledge about the need to intentionally embed awareness of diversity, equity, justice, and inclusion into preservice training for human service providers in all professions, preservice ABA programs might.

Cultural Knowledge

Factual knowledge of the cultures and histories of cultures associated with the communities served.

- Preservice behavior analysts demonstrate knowledge about White supremacy and the structural violence of racism that Black, Indigenous, and other people of color experience in the United States.
- Preservice behavior analysts demonstrate knowledge of systemic oppression of individuals with disabilities, especially at the intersection of disability and race/ethnicity.
- Preservice behavior analysts document knowledge of social determinants of health and behavior, including racism and poverty.
- Preservice behavior analysts demonstrate knowledge of anti-racist and anti-bias actions associated with various identities and cultures.

Cultural Awareness of Other Cultures

Awareness of how cultural variables, and other identity variables may show up in a given setting.

- Preservice behavior analysts demonstrate knowledge about the history of measurement development and how it has been historically used to harm people with disabilities (IQ, adaptive behavior, mental health) and people of color.
- Preservice behavior analysts demonstrate understanding of acculturation processes, intergenerational dynamics, and the challenges faced by recent immigrants to a culture different than their home culture.

Cultural Humility

- Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among African Americans) and demonstrate cultural humility in determining their client's values and preferences and worldview.

- Preservice behavior analysts use authentic engagement and active listening, self-reflection practices and an approach of cultural humility when working with clients, and supervisees to disrupt potential power imbalances and identify shared values.

Cross-Cultural Application

As the U.S. non-White population continues to grow (Beaulieu et al., 2019), the field of ABA needs to train preservice behavior analysts in working with individuals from different races, ethnicities, cultures, socioeconomic classes, religious and spiritual backgrounds, with varying ability statuses, gender identities, and sexual orientations (Beaulieu et al., 2019; Ortiz et al., 2022). Because the majority of behavior analysts are White, cisgender females serving diverse populations (Beaulieu & Jimenez-Gomez, 2022; Levy et al., 2021; Miller et al., 2019), it is fundamental that preservice and practicing behavior analysts gain knowledge and demonstrate competence in working with cultural humility with these diverse populations (Beaulieu & Jimenez-Gomez, 2022; Dennison et al., 2019; Miller et al., 2019). The results of a recent survey study indicated that 40% of graduates from an ABA program reported they had received adequate multiculturalism training (Connors et al., 2019). Similarly, 50% reported receiving adequate multiculturalism training from their supervisor. These percentages were even lower when broken down to adequacy in working with clients from different religious and spiritual backgrounds and clients with a different sexual orientation. Only 21% of respondents reported having the opportunity to work with gender and sexual minority individuals (Connors et al., 2019). Supporting this evidence, Beaulieu et al. (2019) found that most of their sample reported little to no training in cultural variables and competency. Thus, graduate behavior analysts have a long way to go to become culturally responsive (Najdowski et al., 2021; Ortiz et al., 2022). Cross-cultural application refers to the ability to apply sensitive methods to reflect one's

understanding of a specific culture. It is imperative for service providers to have cross-cultural application, as no one culture is similar to another (Fong & Tanaka, 2013; Gatzunis et al., 2022).

Cross-Cultural Applications with Clients and Their Families of Different Racial and Ethnic Backgrounds

The need for preservice training is amplified by the reality that currently, the majority of behavior analysts are White and much of the research done is on the White population, mainly including children with autism and developmental disabilities (Banerjee et al., 2022; Beaulieu et al., 2019; Conners et al., 2019; Dennison et al., 2019; Miller et al., 2019). Pritchett et al. (2021) reviewed all intervention studies published in the *Journal of Applied Behavior Analysis* across 50 years (i.e., 1986–2018). They found a very low rate (10 articles) of studies reporting race and none that reported sexual orientation demographics. The trend that Pritchett et al. uncovered was colonialism rather than collaboration: “These data suggest that protections are either limited or underreported. Such patterns in the data suggest that we are contributing to a structure that is oppressive, commodified, and restrictive of the voices and participation of large segments of society” (Pritchett et al., 2021, p. 7). The lack of participant characteristics is disturbing as this perpetuates the current biases of the most vulnerable populations (Dennison et al., 2019). The authors call for “a common value system based on love, compassion, human rights, and advancement of the well-being of humanity requires a realignment of and collective agreement on values” (Pritchett et al., 2021, p.16). Supporting these findings, Dennison et al. (2019) called for the intentional recruitment of a diverse population and an analysis that inquires about participants’ experience in regard to their language.

The lack of reporting demographics of race is not unique to ABA (Pritchett et al., 2021). Literature on the trend in special education points to a similar challenge. A systematic review

(Sinclair et al., 2018) reporting across 12 special education journals between 2000–2016 revealed that only 50% of intervention research reported demographic of race. Similar to Pritchett et al. (2021), Sinclair et al. (2018) reported that none of the studies included participants' sexual orientation. These gaps in the bodies of research informing evidence-based practice have significant implication for professionals including behavior analysts.

Black and Latinx children are at a higher risk of receiving a delayed autism diagnosis and often are misdiagnosed with intellectual disability, a form of institutional racism (Beaulieu & Jimenez-Gomez, 2022; Castro-Hostetler et al., 2021; Čolić et al., 2021). As such, these populations have difficulties accessing needed early intervention and behavioral health services, ABA included (Dennison et al., 2019; Rivard et al., 2021). One important aspect that is repeatedly emphasized is that behavior analysts should acquire cultural knowledge, yet at the same time are advised to avoid over generalization of groups as individuals within each group and may hold different experiences, beliefs, and attitudes than the broad common aspects of a specific group (Capell & Sevon, 2020).

Cumulative research confirms that there are still significant racial and socioeconomic disparities in early diagnosis of autism and early intervention among children from minoritized groups (Stevens Smith et al., 2020). In their systematic literature review, Stevens Smith et al. confirmed that children of color at the intersection of low SES are at higher risk for delayed diagnosis and limited access to healthcare and related services. Language barriers more common among Latino/Latinx population present an additional challenge positioning Latino/Latinx children at even higher risk for this trajectory. Given the consistency of this trend, behavior analysts are urged to take actions, to educate themselves about the systemic barriers faced by Latino/Latinx clients, and to genuinely learn what are the impacts of limited language, different

places of origin, and spiritual beliefs on their clients' experience and needs (Bermudez & Rios, 2020; Castro-Hostetler et al., 2021; Kornack et al., 2019). Alai-Rosales et al. (2022) further reported that 88% of parents of children diagnosed with autism who identify as Latina/Latinx in their sample reported that their child is on the waitlist for ABA services, followed by 63% who reported they were not able to find an appointment to match their schedule. Service in the local area was the third major barrier reported by parents in this study. In addition, 38% of parents reported that by the time their child was diagnosed, they did not meet criteria for services and that they could not find a therapist speaking their language. These results support the need for training that examines the structural aspect of these barriers and addressing these systemically. ABA training is situated to ingrain the necessary skills to train future practitioners with the necessary skills to change the current trend (Ortiz et al., 2022).

In their book chapter, Capell and Sevon (2020) discussed the impact of racial trauma on African Americans in modern society. The authors reported a lack of awareness and knowledge about ABA among families of color as a root that maintains racial disparities. The lack of knowledge about ABA contributes to the perception that ABA is intrusive—which, in turn, result in limited outreach by African American families. This attribute suggests the need for better dissemination and increased accessibility to services. Čolić et al. (2021) conducted a literature review that describe the dimensions of systemic racism on Black families. Overall, they described Black parents' mistrust of behavior and health providers based on previous interactions they may have experienced with providers. Some parents reported discontinuing services if they felt their child was not welcomed or because the provider had low expectations for their child. Black parents reported feeling being treated without adequate respect based on practitioners' prejudice. Parents reported being disregarded in the diagnosis process and needing multiple visits

to obtain a diagnosis (Čolić et al., 2021). Other elements described in the review include lack of access to information from the provider regarding the diagnosis of ASD and the related rights and services (Bermudez & Rios, 2020). The authors concluded with a call for practitioners to actively learn about Black culture and values, strive for strong partnerships, employ cultural relevant practices, and engage in ongoing exploration of one's own culture and prejudice (Bermudez & Rios, 2020; Machado & Lugo, 2021).

Cultural Applications with Clients and Their Families who Speak Nondominant Languages

Language is reported as a primary barrier to accessing services among non-English-speaking and immigrant families which is amplified by the fact that most behavior analysts are monolingual (Castro-Hostetler et al., 2021). Often, non-English-speaking families present some unique barriers including lack of insurance, financial hardship, and limited knowledge how to navigate the health care system (Castro-Hostetler et al., 2021; Kornack et al., 2019). Limited English proficiency (LEP) may be perceived as a lack of engagement or as being associated with race, culture, or ethnicity prejudice (Castro-Hostetler et al., 2021; Kornack et al., 2019). For example, behavior analysts unknowingly may incline to take on English speaking families over non-English-speaking families (Kornack et al., 2019). Language is the vehicle for timely diagnosis, accurate assessment, and treatment precision (Deochand & Costello, 2022). It is also a fundamental ingredient in creating a strong therapeutic relationship which has a critical impact on treatment outcomes. Another challenge for LEP families is communication of information during the process. Simplifying professional jargon presents an additional barrier to accessing services (Castro-Hostetler et al., 2021; Critchfield et al., 2017; Deochand & Costello, 2022).

In addition to the above barriers, Dennison et al. (2019) identified several barriers for Latinx families to access ABA services. These barriers include (a) lack of reporting and lack of diversity in racial representation in research, (b) lack of diversity among ABA practitioners, (c)

the impact of attitudes and bias towards certain cultures, (d) mismatch between practitioner and client language, and (e) lack of practitioner cultural awareness training. In particular, Dennison et al. (2019) stressed the need for training on the impact of bilingualism on treatment outcomes. According to Dennison et al., practitioners need to learn how to self-reflect and analyze the impact of their own culture on the ability to serve culturally and linguistically diverse (CLD) families (Fong et al., 2022). In a discussion of the implications of their study, Dennison et al (2019) discussed the significance of including families in the process of identification and treatment as parents of children receiving service often function as funds of knowledge. Additionally, delayed diagnosis, age limitation for services, and language proficiency were also reported as barriers by Joseph (2021) in an investigation of access to ABA services among CDL and immigrant families. Immigration status increases the levels of parental stress which presents additional barriers to access services. The first step towards supporting immigrant families is to acknowledge their unique experience to establish trust and therapeutic alliance (Baier et al., 2020).

When providing services to non-English-speaking clients, the use of interpreters can ameliorate language barriers and assure that assessment results are delivered appropriately (BACB, 2022; Dowdy et al., 2021). Dowdy et al. described the challenges related to the collaboration between a behavior analyst and an interpreter that should be considered. Interpreters may not be familiar with the context of the specific family and most likely will not be familiar with ABA. In addition, behavior analysts may have no experience working with interpreters and little understanding of the interpreters' role as a *cultural clarifier*. This unique alliance requires competency, strong communication and partnership skills. Considering the limited access behavior analysts have to practice working with interpreters during field work, the

authors suggested that programs explicitly teach best practices for successful collaboration (Dowdy et al., 2021).

Culture and cultural acculturation are yet another systemic element that impacts access to services, as well as treatment outcomes. Cultural values define what is discipline, what behaviors are perceived as a socially significant, socially acceptable reinforcements, and intervention components (Castro-Hostetler et al., 2021). Establishing alliance with CDL and immigrant families require an intentional understanding of the client culture and acculturation status and other systemic barriers that prevent proper access to services (Deochand & Costello, 2022). For example, current functional behavior assessment (FBA) guidelines are missing explicit instruction for cultural adaptations, leading educators and practitioners to potentially miss significant information regarding the interaction between clients' culture and environmental arrangements (Deochand & Costello, 2022). Similar to Dennison et al. (2019), Deochand and Costello (2022) called for behavior analysts to engage families starting with forming the hypothesis for the functional based assessment (FBA), continued by common definition of socially significant behaviors and the corresponding contingencies. These authors advocated for the inclusion of families and all relevant stakeholders throughout the process.

Beaulieu et al. (2019) found that only a few of the participants in their study reported having formal training about how to work with diverse clients. Furthermore, they reported lacking access to ongoing training, and most of them educate themselves when working with an immigrant family. These authors compared cultural competency care to any other skill that is explicitly taught (i.e., discrete trial training) and cited that most participants reported training themselves is parallel to programs to allow practitioners in the field to conduct a functional assessment with no training.

Cultural Application with Clients from Different Religious and Spiritual Backgrounds

A person's religious and spiritual background is central to one's identity and psychological well-being as these influential experiences center around specific values and sets of beliefs that shape individuals' behaviors (Pearce et al., 2019; Vieten & Lukoff, 2022).

Religious and spiritual practices may also carry a history of discrimination and oppression that shapes learning history and contingencies in place (Vieten et al., 2013). Similar to race, ethnicity, gender identity, sexual orientation, age, ability status, religion and spirituality are another layer of multiculturalism (Crabtree et al., 2021; Vieten & Lukoff, 2022). Unfortunately, literature in ABA on the topic of religious and spiritual backgrounds of clients and the intersection with services is sparse.

Practitioners serving clients from different religious or spirituality backgrounds than their own must have the skills to reflect on their own background and to identify potential biases and barriers that may arise from these differences prior to and during the delivery of ABA services (Bermudez & Rios, 2020; Capell & Sevon, 2020; Melroe & Robbins, 2020). Behavior analysts must also approach clients with cultural humility and intentionality in learning (Kolb et al., 2022) about each client and their expression of religion and spirituality as practices are diverse across people within a particular religious or spiritual tradition and often change over the individual's life span (Evans & Nelson, 2021; Vieten & Lukoff, 2022; Vieten et al., 2013).

In addition to presumed barriers to access ABA services, people with different religions and spiritualities encounter prejudice (Matsuda et al., 2020; Olsen & Kelly, 2020). In ABA, prejudice is conceptualized as a form of overgeneralization. It is formed by indirect contact with a stimulus (Arhin & Thyer, 2004; Dixon et al., 2006). For example, after the terrorist attacks on 9/11, people developed feelings and negative opinions about individuals of Middle Eastern Muslim descent. Although not directly impacted by the attack, many have developed a prejudice

about this particular group (Dixon et al., 2006; Goodwyn, 2021). This is an example of prejudice that a behavior analyst may convey. Similarly, prejudices about Black and Latinx are formed unconsciously and may affect the process of assessment and forming relationships with clients (Castro-Hostetler et al., 2021; Čolić et al., 2021).

Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority

Sexual and gender minorities refer to individuals who identify as lesbian, gay, bisexual, transgender, queer, intersex or asexual/aromantic (LGBTQIA+). Individuals that identify with this group face high rates of stigmatization, abuse, domestic violence, discrimination, and incarceration (James et al., 2016; Leland & Stockwell, 2019, 2021; Meerwijk & Sevelius, 2017; Peitzmeier et al., 2020), and also report higher rates of suicide attempts (Green et al., 2022; James et al., 2016). This vulnerable group has historically been pathologized and dehumanized by helping professions in the United States (Leland & Stockwell, 2021; Ramsey et al., 2022). To date, individuals identified as LGBTQIA+ report experiencing ongoing discrimination and barriers to healthcare access (Ramsey et al., 2022; Sabin et al., 2015). Similar to the healthcare profession, ABA has historically treated sexual and gender minorities as a pathology that needed to be converted in treatment (Capriotti & Donaldson, 2022; Morris et al., 2021).

In their literature review, Morris et al. (2021) identified only 12 articles in behavior analytic journals that pertain individuals who identify as LGBTQIA+. Of the 12 articles, most were conceptual, providing a behavioral analytic explanation for sexual preference, survey studies examined variables correlated with sexual orientation. The two empirical studies identified through the search process did not include conversion therapy but did focus on intervention that aimed to change individuals' sexual preference. The authors emphasized recent call to actions papers that urge the field to alter interventions to provide gender affirming practices and to become aware of the history of the field as a first step for behavioral change.

One recent conceptual paper discussed the historical focus on intervention and involvement in ABA intervention for LGBTQAI+, which included conversion therapy (Capriotti & Donaldson, 2022). Although current ABA professional organizations have spoken against conversion therapy due to harms and it is not accepted practice as a behavior analyst (ABAI, 2022; Leland & Stockwell, 2021), researchers have provided little attention to the development and evaluation of affirmative interventions or appropriate service delivery with sexual and gender minority (i.e., LGBTQAI+) clients (Capriotti & Donaldson, 2022). Capriotti and Donaldson suggested several pathways to engage behavior analysts in this area. First, they indicate that the professional organizations (i.e., the Association of Behavior Analysis International [ABAI] and the Association of Professional Behavior Analysis [APBA]) can issue specific guidelines for helping practitioners and researchers engage with clients that identify as sexual and gender minority. Additionally, they suggested that professional organizations increase the topic's visibility in their national conferences. The authors also indicated that professional organizations increase research funding for sexual and gender minorities. Lastly, they encouraged researchers to publish their work in this area and increase the volume of this work in the literature base.

In their call to action, Leland and Stockwell (2019) described a self-assessment tool to cultivate affirming practices with transgender and gender nonconforming individuals. These authors emphasized three areas that make up affirmation: ethics, environment arrangement, and behavioral arrangement with this tool. Under ethics, the authors provided a set of questions for self-assessment based on the BACB ethical code. Environmental arrangement helps examine the intake process and to examine one's behavior toward transgender and gender nonconforming individuals. This tool is a good starting point, yet there is much more to be done both in research and in practice to validate its use.

Conducting a multiple probe, single case design examined behavior self-monitoring (BSM), Petronelli and Ferguson (2022) demonstrated a functional relation between the use of BSM and the correct use of pronouns for two graduate students. These authors discussed the need to establish awareness of one's learning history and use of proper pronouns. After baseline, they introduced a condition of a subtle cue that prompted participants to pay attention to various cultural background information. This condition did not result in the proper use of pronouns. Next, they introduced the BSM, in which participants were instructed to tally their use of proper pronouns. Following the BSM, both participants responded immediately and increased their proper use of pronouns to 100% of opportunities. These results were maintained after the intervention ended. While the contribution of this study is laudable, more studies are needed to affirm these findings and address other inclusive behaviors. In related fields, emergent work has been done to address LGBTQAI+-affirming practices. For example, in a qualitative study, Abreu et al. (2020) discuss the sample findings that included 111 counselors. The majority of the sample self-identified as heterosexual, and the remainder self-identified as lesbian, bisexual, or queer. These authors revealed that half of the sample reported inadequate preparedness for working with transgender students by utilizing an open-ended questionnaire. Their findings suggest that preservice programs do not adequately train preservice school counselors. Thus, preservice training is critical for practitioners' preparedness for affirming practices.

Suggestions for Preservice Preparation in Cross-Cultural Application

Due to the relative lack of research with diverse populations, preservice and in-service practitioners in ABA do not have the opportunity to be exposed to ABA-centric research addressing assessment and intervention with individuals from minoritized race, religion, gender, and sexual orientations. Systematic change requires deliberate efforts toward participatory research through empowering those who have historically been marginalized (Pritchett et al.,

2021). Best practices in the formulation of treatment/intervention plans in ABA includes a client-centered approach (Deochand & Costello, 2022; Miller & Rollnick, 2014) that takes into account client culture, preference, and personal goals, as well as contextual factors that support and hinder progress towards achieving intervention goals (Deochand & Costello, 2022; Jaramillo & Nohelty, 2021; Kornack et al., 2019). Behavior analysts should be prepared to implement client centered assessment, intervention and progress monitoring practices with clients and their families from different races/ethnicities, spoken languages, religions and then their own. Due to the overwhelming proportion of BCBAs who White European American and cisgender heteronormative females are, preservice preparation must focus on explicit instruction of behavior analysts in knowledge and applications related to specific nondominant cultures, race/ethnicities, nondominant languages, and religious or spiritual practices and LGBTQAI+ and gender minorities as well as neurodiversity in relation to disability (Abreu et al., 2020; Castro-Hostetler et al., 2021; Čolić et al., 2021; Jaramillo & Nohelty, 2021; Miller et al., 2019; Petronelli & Ferguson, 2022; Rivard et al., 2021). In efforts to prepare behavior analysts who are culturally responsive, rather than rigid in cross-cultural applications, the use of decision-making, and ethical frameworks will play an essential role in preservice preparation programs (Kelly et al., 2021; Miller et al., 2019; Rosenberg & Schwartz, 2019).

Research in ABA and other fields such as counseling and school psychology has resulted in numerous instructional practices and experiences that can assist preservice programs in addressing competence of cross-cultural applications. For example, school psychology training suggests a specific multiculturalism course for preservice providers that aim at teaching knowledge, history, and exploring beliefs and attitudes. Such courses are foundational to the

application of knowledge into practice with different cultural groups and sustaining outcomes over time (Fisher, 2020; Newell et al., 2010).

Other researchers have described strategies for broaching behaviors that facilitate explicit discussion about race, ethnicity, and culture during intake, assessment, and the counseling process (Evans & Nelson, 2021). Therefore, enhancing racial self-awareness is fundamental for providing cross-cultural application across service providers (Gatzunis et al., 2022). Day-Vines et al. (2018) emphasized the importance of identifying personal biases and potential barriers as a part of counseling training, a process that is essential for creating a strategic and self-monitoring plan. Next, these authors stressed the significance of multicultural case conceptualization. Case conceptualization requires the trainees to identify cultural dimensions that may impact the manifestation of clients' problems and potential impact on the counseling process (Evans & Nelson, 2021). Case conceptualization is particularly important when the racial composition of the counselor client dyad is different. Case studies are described as a tool for counseling trainees to explore their attitudes and biases and conceptualize the multicultural aspects of the case study. Case studies allow students to translate the specific cultural identification into sensitive and effective communication behaviors. Day-Vines et al. recommended the use of media to analyze complex scenarios and depict the impact of stereotypes as they are presented in much of modern media. Mock interviews are another strategy for counseling psychology training described by the authors. Recording a mock interview allows for detailed transcription that provides an opportunity to examine biases and practice multicultural conceptualization.

Petronelli and Ferguson (2022) demonstrated the impact of behavior self-monitoring on the proper use of pronouns among behavior analysts. Using self-assessment is also described as a mechanism to enhance cultural responsiveness among ABA practitioners (Beaulieu & Jimenez-

Gomez, 2022). Self-evaluation has also shown positive impact on ABA practitioners to assess their implicit bias and mitigating judgment of clients (Jaramillo & Nohelty, 2021; Machado & Lugo, 2021). Additionally, Leland and Stockwell (2019) described the use of self-evaluation to cultivate affirming practices with transgender and gender nonconforming individuals. Based on the extant literature and professional practices in ABA or related fields (e.g., school psychology and counseling psychology), the following competencies might be valuable and important to be included in ABA preservice training:

Cross-Cultural Applications with Clients and Their Families of Different Racial and Ethnic Backgrounds Suggested Competencies

- Preservice behavior analysts use appropriate culturally sensitive methodological approaches, skills, and techniques that reflect the professionals' understanding of the role of culture in the life of the client.
- Preservice behavior analysts can identify potentially problematic items on commonly used standardized assessment tools in ABA for culturally diverse clients.
- Preservice behavior analysts demonstrate effective use of noncolonial strategies in the practice of applied behavior analysis, including the use of active participation in the development of treatment goals and services by clients and interested parties.
- Preservice behavior analysts demonstrate the ability to effectively convey assessment results to families from different cultural backgrounds.
- Preservice behavior analysts demonstrate the use of instructional/intervention materials that validate and consider students' cultural, linguistic, and racial identities.
- Preservice behavior analysts demonstrate the ability to construct culturally relevant intervention goals in collaboration with clients from nondominant cultures or cultures different than their own.

- Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among African Americans) and demonstrate cultural humility in determining their client's values and preferences and worldview.
- When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst recognizes that the client's concept of the contributions to human behavior and learning might differ from their own.
- When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst can identify when misunderstandings occur due to intercultural communication breakdown.
- Preservice behavior analyst understands that a client from a cultural background different than their own may perceive the use of language differently and understands the role of this difference in socio-pragmatic rules in communication breakdown. Examples include requests or topics that are culturally inappropriate for one of the parties given the context or use of personal address, bodily distance, nonverbal communication seen as disrespectful or nonengaged by one of the parties.
- Preservice behavior analyst understands the practice and role of cultural brokerage in easing culturally based misunderstandings and improving communication when the behavior analyst is from a cultural background different from their client.
- Preservice behavior analyst is attentive to the values, beliefs, and fears of diverse clients and colleagues that could affect participation in intervention.
- Preservice behavior analysts demonstrate how to plan for and effectively communicate during situations related to differences in opinions, values, agendas, histories, etc.

- Preservice behavior analysts are aware of potential power dynamics and information inequities that may be present when clients and colleagues are from different backgrounds and identities than their own.
- Preservice behavior analysts incorporate two-way communication and feedback loops during intervention and research activities.

Cross-Cultural Applications with Clients and Their Families who Speak Nondominant Languages Suggested Competencies

- Preservice behavior analysts understand practices that can provide or advocate for the provision of information, referrals, and services in the language appropriate to the client, which may include use of interpreters.
- Preservice behavior analysts can select culturally/linguistically appropriate assessments and screeners for clients from CLD backgrounds.
- Preservice behavior analysts demonstrate knowledge of how to extend ABA interventions to bilingual clients.
- Preservice behavior analysts know how to identify and address communication errors that may occur when working with clients and colleagues who speak nondominant languages.
- Preservice behavior analysts demonstrate awareness of the legal, ethical, and practical issues related to language translation and the appropriate use of interpreters in assessment and intervention for non-English-speaking clients.

Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority Suggested Competencies

- Preservice behavior analysts demonstrate use of identity affirming practices with transgender and gender nonconforming (TGNC) clients, supervisees, and colleagues.

- Preservice behavior analysts demonstrate understanding that people have diverse sexual orientations, gender identities, and gender expressions that intersect with other identities and contexts.
- Preservice behavior analysts can discuss the history of conversion therapy in relation to sexual orientation, the harms caused by attempting to change sexual orientation, and current ethical guidelines for behavior analysts that are against conversion therapy.
- Preservice behavior analysts examine their own bias, attitudes about, and knowledge of sexual orientation, gender identity, and gender expression may impact their practices in ABA, particularly the services they provide to LGBTQAI+ clients.
- Preservice behavior analysts can list best practices for outreach to LGBTQAI+ communities including representation in outreach materials (e.g., brochures and websites).
- Preservice behavior analysts self-identify their own personal experiences and identity related to LGBTQAI+ and/or TGNC that may influence their beliefs, values, and practices and demonstrate cultural humility when working with clients, supervisees, and colleagues who have a different gender, sexual orientation, or identity.
- Preservice behavior analysts demonstrate understanding that gender is nonbinary with a range of gender identities and expressions and that gender identity may not align with assigned sex at birth.
- Preservice behavior analysts know how to adapt interventions and use culturally responsive teaching and training strategies when working with clients and families who identify as a sexual or gender minority.

- Preservice behavior analysts know how to identify and address communication errors that may occur when working with clients and colleagues who identify as a sexual or gender minority.
- Preservice behavior analysts recognize the great diversity and strengths among LGBTQAI+ groups and demonstrate cultural humility in determining their client's values and preferences and worldview.
- Preservice behavior analysts can list practices to affirm the identity and inclusion of sexual minority clients and communities during all aspects of research (e.g., providing a range of demographic options in surveys).
- Preservice behavior analysts can identify resources for educating clients, supervisees, and colleagues about inclusive behaviors towards LGBTQAI+ communities.
- Preservice behavior analysts can identify resources for connecting LGBTQAI+ clients to affirmative social support.

Cultural Application with Clients from Different Religious and Spiritual Backgrounds and Collaborating with Other Professionals Suggested Competencies

- Preservice behavior analysts demonstrate the use of identity affirming practices with clients, supervisees, and colleagues from different religious and spiritual backgrounds.
- Preservice behavior analysts self-identify their own personal background and affiliations related to spiritual, religious, or secular beliefs that may influence their beliefs, values, and practices and they demonstrate cultural humility when working with clients, supervisees, and colleagues who have a different background or affiliation.
- Preservice behavior analysts demonstrate understanding that people have diverse spiritual, religious, and secular beliefs and affiliations that intersect with other identities and contexts.

- Preservice behavior analysts understand that clients may have spiritual, religious, or secular beliefs and affiliations that might not align with the philosophy and worldview underlying ABA practices.
- Preservice behavior analysts understand the role of conversations with clients about their spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs.
- Preservice behavior analysts partner with clients and families when incorporating religious and spiritual beliefs in treatment goals and interventions.
- Preservice behavior analysts understand when to appropriately seek cultural brokerage, professional development, or referrals to other behavior analysts when providing ABA services to clients with different spiritual, religious, and secular beliefs and affiliations than their own.

Activism to Disrupt Inequitable Systems

While the most updated ethical code addresses awareness of one's biases and challenges, culturally responsiveness, diversity, and nondiscrimination, several tenants are missing. First, Levy et al. (2021) argued that the ethical code uses vague language, leaving the interpretation up to the individual. This is problematic because most ABA practitioners are White—and, thus, may have limited awareness of their biases and the impact of these biases on their behavior (Alai-Rosales et al., 2022; Arango & Lustig, 2023; Machado & Lugo, 2021). Second, the current code does not overtly call for dismantling current systemic inequities (Levy et al., 2021). Another challenge the BACB faces is that the Task List version 5 still focuses on the technical aspect of ABA and has yet to explicitly address DEI, and anti-racism (Fong et al., 2016). Levy et al. (2021) stressed the importance of including specific language about anti-racism in an ethical

code and acknowledge that anti-racism is present in all aspects of behavior. Levy et al. further called for the BACB to change their continuing education (CE) requirements to require DEI CEs similar to the requirement for ethical CEs. This call was supported by the BACB newsletter in March of 2022 that recommends required CEs in DEI (BACB, 2022).

The accreditation process for ABA was developed to address issues as they rose in the field. Each task list was created using a job analysis tool, a tool that examined current issues that needed to be addressed and included in the competency lists (Johnston et al., 2017). Published in January 2017, Task List 5 (BACB, 2022) does not explicitly identify social activism as an area in need of development. Although diversity and multiculturalism have already been discussed by ABA scholars and practitioners (Beaulieu et al., 2019; Donovan et al., 2022; Fong et al., 2016, 2017; Levy et al., 2021; Matsuda et al., 2020), the call for a strong social stance against racism (Deochand & Costello, 2022; Donovan et al., 2022; Levy et al., 2021; Matsuda et al., 2020) emerged after the brutal murders during 2020 of Breonna Taylor (March 13, 2020; Martin, 2021) and George Floyd (May 31, 2020; Hill et al., 2020). The landmark case of *Brown vs. the Board of Education of Topeka* and civil rights movement of the 1960s served as major catalysts for social activism in the United States (Jenkins, 2022). Most recently, the Black Lives Matter movement has spurred a broader conversation towards identifying, acknowledging, and addressing both modern and historical elements of systemic racism across many fields, such as medicine, mental health, education, and law enforcement (Black Lives Matter, 2022; Chase, 2018). The belated reflection and actions addressing systemic racism in the field of ABA could be explained by the absence of language addressing social activism from the BACB Task List 5. Another contributing factor to the late uptake of social justice stems from the fact that the ABA field is still primarily comprised of White practitioners. White assumptions and the lack of anti-racist

orientation and action need addressing. Therefore, obtaining expert consensus about the DEJI competencies could lead the field towards meaningful and practical change (Ortiz et al., 2022).

The ABA field has failed to systematically address DEJI since its introduction as a field of research (Matsuda et al., 2020; Miller et al., 2019). Researchers in ABA have leveled criticism at the field's lack of research and practice guidelines explicitly addressing racism and systemic oppression of individuals from historically marginalized groups (Levy et al., 2021). It is time for leaders within higher education and professional organizations and behavior analysts within the field to actively consider at its assumptions and practices and shift away from reinforcing the status quo and join others in the work of dismantling systemic racism (Deochand & Costello, 2022). Modern systemic oppression is also affected by White supremacy, which is still pervasive in modern society across all fields, and behavior analysis is no exception (Goodwyn, 2021). Behavior analysts have been delayed in their response and have much work ahead moving from observers to social activists, a fundamental transition to demolishing White supremacy from the practices in these fields (Donovan et al., 2022).

The origin of ABA is Eurocentric, and to this day, the field is dominated by White practitioners; thus, practices and systems are rooted in White assumptions about behavior and contingencies (Miller et al., 2019). Therefore, current accepted practices may not account for the contingencies and learning history of marginalized groups (Beaulieu & Jimenez-Gomez, 2022; Levy et al., 2021; Pritchett et al., 2021). Understanding how procedures impact those of marginalized groups requires examination of the setting events, motivating operations, and interwoven contingencies that have resulted in oppressive practices. Oppression can be operationally defined as the lack of access to contingencies and reinforcement obtained by the dominant group (Donovan et al., 2022; Goodwyn, 2021). "To properly address inequity, one

must consider the unique ways that a population is affected by different contexts in which children are learning, by not only providing resources but eliminating barriers to achieving favorable academic outcomes” (Levy et al., 2021, p. 2).

The terms oppression and systemic racism are sparse in the behavior analysis literature, and much of the literature is conceptual, rather than experimental (Dennis, 2021; Levy et al., 2021), suggesting the relative newness of these lines of scholarship. Donovan et al. (2022) noted that diversity, equity, and inclusion are more common keywords found in the literature. Recently, the Applied Behavior Analysis International (ABAI) issued a DEI statement and task force in an effort to address the topic comprehensively and encourage practitioners and scholars to work towards increasing its visibility (Ortiz et al., 2022). Donovan et al. (2022) cautioned that these efforts do not yet include observable, measurable criteria for evaluation of their effectiveness of these efforts. Without observable measurable goals, the validity of these efforts should be questioned. It is unclear whether these efforts will result in meaningful change in outcomes for minoritized individuals. These authors argued that any DEI initiative is additive and as such these movements are limited in their capacity to get to the root of systemic oppression. They called for a change in the focus from DEI to justice and equity, urging the field to take a social justice stance against racism.

Miller et al. (2019) explained how cultural competency, responsiveness and cultural humility employed by ABA are dimensions of social justice. These authors displayed how these traits demonstrate social justice. They argued that cultural competency, the ability to provide culturally relevant intervention, naturally lends itself to social justice as it makes services more accessible to individuals who do not belong to the dominant group. Cultural responsiveness is described next as the ability to incorporate cultural values and interests to curricula—which, in

turn, decreases educational disparities. Last, Miller et al. reflected that cultural humility calls for examination of oppression and power imbalances, actions that represent social justice (Foronda, 2020). These authors encouraged leaders in ABA to immerse themselves in social justice and strive for contribution of societal change.

Recently, Deochand and Costello (2022) offered a social justice framework for cultural and linguistic diversity in ABA. They similarly recommended that justice should be added to the DEI initiative. These authors stressed that clients have the right for nondiscriminatory services which requires the behavior analyst to fully understand the interaction between their culture and their clients and requires advocacy to remove systemic barriers. Deochand and Costello emphasized that failing to tailor intervention to the individuals' culture not only is unethical it damages the ABA reputation. Furthermore, insisting on social justice is expected to attract diverse practitioners and promote research on historically minoritized and oppressed groups.

Henry et al. (2021) carried out a survey with 111 school professionals, including behavior analysts, who examined perceptions of exclusionary discipline in schools implementing the Zero Tolerance policy. The survey findings suggest that behavior analysts and other school professionals (i.e., teachers, occupational therapy, school psychology, RBTs, and school administrators) are still uncomfortable talking about racism and are unlikely to take action to provide alternatives to the exclusionary practices in schools that follow the zero-tolerance policy. Furthermore, their findings suggest that only 10% of the professionals indicated collecting data on racial inequities, and only 9% reported implementing behavior interventions addressing these inequities. The zero-tolerance policy is a punishment-based intervention and does not provide skill-building opportunities. ABA offers a proactive approach focusing on antecedent, preventative interventions (Henry et al., 2021). Additionally, the core principles of positive

reinforcement, teaching skills, and alternative behaviors can replace the exclusionary practices that discriminate against individuals of color.

As a result of their survey findings, Henry et al. (2021) called for action, arguing that the field of behavior analysis must understand racism and racist behavior as the first step toward becoming anti-racist. These authors discussed the term “accompliceship” (Indigenous Action, 2014), which is established through continued supportive efforts and involves being “explicit,” “accountable,” and “responsible” in taking direct actions of togetherness right beside individuals facing cultural injustices (Henry et al., 2021, p. 2).

Pritchett et al. (2021) have also called for action related to social justice in ABA. These authors called to dismantle the structures that have pulled the field away from its applied science, which will require examining the colonialism and power roots (Pritchett et al., 2021) struggle of current practices. Radical change can only occur when a thoughtful reflective process includes insights of those who have been oppressed (Miller et al., 2019). This movement to incorporate social justice into preservice programs will require intentional training (Deochand & Costello, 2022; Miller et al., 2019).

Beene (2019) shared from her own experience being a woman of color in the field of ABA. She called for practitioners to be intentional creating conversation about other cultural, be curious of others experience, ask clarifying questions, challenge rule governed behaviors, actively participate in special interests’ groups, and create safe space where employees and clients can share experiences and allow for peer learning. This author cited that “actions speak louder than words,” advocating for behavior analysts to take accountability of current disparities by taking actions to disrupt the current status quo. In her letter to the editor, Beene argued that change will only be possible if the collective proceeds with distinct actionable steps.

Suggestions for Preservice Preparation to Disrupt Inequitable Systems

Disruption to inequitable systems necessitates the intentional learning of the history of the history of oppression and the various ways oppression can manifest itself within our current social structures and its ongoing impact on clients. It also requires an understanding of decolonization and the power dynamic that may impact desirable outcomes. The following competencies are suggested to help the field move towards social justice stance.

- Preservice behavior analysts can operationally define justice, equity, diversity, and inclusion.
- Preservice behavior analysts demonstrate knowledge of the underrepresentation of clients from Black, Indigenous, and other nondominant, non-White backgrounds in applied behavior analysis.
- Preservice behavior analysts can discuss how to actively use culturally responsive practices and procedures at all levels of the organizational structure.
- Preservice behavior analysts actively promote a culture of accountability to the mission and vision statements of the organization using measurable goals with realistic timelines.
- Preservice behavior analysts can discuss how to arrange environmental contingencies and meta-contingencies to shape the behavior of themselves, their colleagues, and their organizations.
- Preservice behavior analysts can list effective strategies to support and advocate for recruitment, admissions and hiring, supervision, and retention efforts in behavior analytic programs and agencies that increase visibility and representation from diverse groups and identities within the organization.

- Preservice behavior analysts can list effective strategies to advocate for improved the diversity of advisory boards, vendors, and collaborators of the organization.
- Preservice behavior analysts can discuss strategies to improve the diversity of organizational leadership (e.g., at least one third of leadership from diverse backgrounds and identities) using strategies derived from organizational behavior management.
- Preservice behavior analysts can discuss practices and advocacy strategies for disrupting health and education disparities affecting access to applied behavior analysis for clients from Black, Indigenous, and other nondominant, non-White backgrounds.
- Preservice behavior analysts understand the behavioral approach for addressing bias and racism (e.g., behavior assessment, intervention, monitoring).
- Preservice behavior analysts can list best practices for improving access to research participation for underserved populations (Black, Indigenous, people of color, nondominant gender, sexual orientation, and religious groups, disabilities other than autism/intellectual and developmental disability).
- Preservice behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.
- Preservice behavior analysts understand the importance of collaborating with organizational leadership on identifying why diverse staff and clients leave the organization and reflect on ways to improve retention and growth within the organization.

Purpose of the Present Study

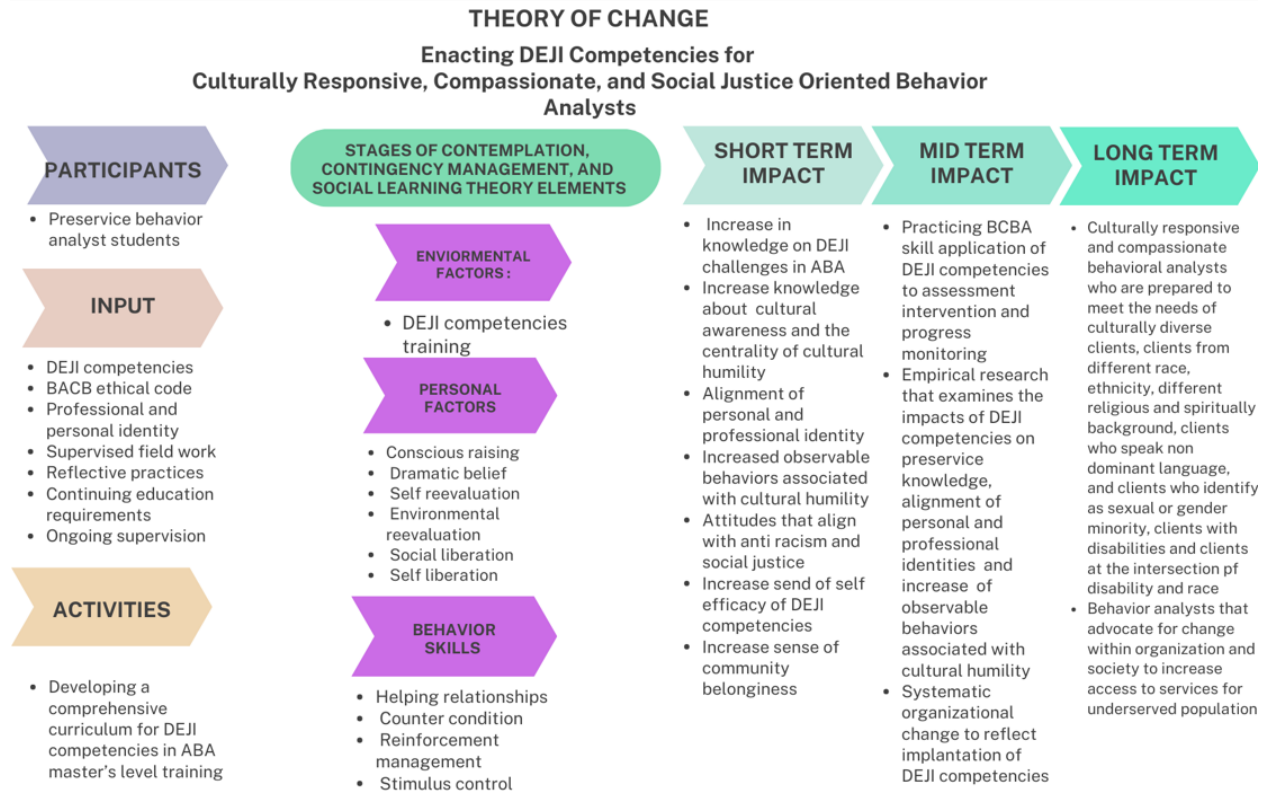
Current evidence indicates that many behavior analysts believe they lack the skills to practice culturally relevant ways and lack DEJI competency (Beaulieu et al., 2019; Conners et

al., 2019; Ortiz et al., 2022). Much of the literature suggests that targeting preservice programs could maximize the efforts of moving the field towards anti-racism (Najdowski et al., 2021; Pavlacic et al., 2021). While there is a growing body of literature that conceptualizes DEJI, there is a dearth of empirical studies examining how DEJI can be put into practice (Dennis, 2021). Due to the lack of research, preservice programs may struggle to translate the conceptual framework into action. The first step towards implementation is to identify and validate potential DEJI competencies.

Similar to ABA, other fields have struggled to address DEJI competencies. For example, school counselors have been debating the position of anti-racism and social justice competencies for preservice school counselors. In a first attempt to address this issue, Stickl Haugen et al. (2021) performed a Delphi study with 21 specialists panel that included three rounds to verify anti racism and social justice competencies for training. Their results indicated that the panel of specialties agreed on 180 competencies across five categories: (a) awareness, (b) knowledge, (c) attitudes, (d) characteristics, and (e) behaviors. These findings can guide a similar process of obtaining consensus on DEJI competencies for preservice behavior analysts (see Figure 1).

Figure 1

Logic Model-Integration of the Transtheoretical and Social Learning Model for Behavioral Change (Bandura, 1971; Norcross et al., 2011)



Theoretical Framework

The Transtheoretical Model

The transtheoretical model for behavioral change was initially developed to examine the stages of behavioral change of complex health behaviors. Its underlying assumption suggests that behavior change does not occur within a vacuum; thus, there is a need to account for an individual's awareness of the problem, readiness, and willingness to change (Norcross et al., 2011). This decision-making model is divided into stages and process of change. The stages include:

1. Precontemplation: At this stage, the individual is typically not aware of the need to change a behavior, and there no recognition of the problem or no willingness to address it, In the case of preservice behavior analyst, in this stage, the practitioner does not recognize the impact of White supremacy on their client and thus does not acknowledge the presence of oppression in the field (Donovan et al., 2022).
2. Contemplation: In this stage, individuals reflect some awareness; yet there is no indication to take action immediately, but rather an indication to take action in the near future (i.e., 6 months). The preservice behavior analyst may acknowledge the presence of systemic racism at this stage yet does not express the commitment to take actions (Levy et al., 2021).
3. Preparation or determination: At this stage, preservice behavior analysts indicate intention for immediate action (i.e., within the next month) such as acquiring knowledge (Fong et al., 2017).
4. The action stage indicates that individuals have been engaged in action and signify an intention to continuously engage in the process. Preservice behavior analysts at this stage may actively identify opportunities to engage in DEJI competencies and make a commitment to continuously engage in this these skills (Beaulieu & Jimenez-Gomez, 2022).
5. At the maintenance stage, individuals sustain behavioral change over time and express the intention to maintain the change (i.e., prevention of relapse). Preservice behavior analysts in this stage are expected to provide compassionate care and engage with cultural humility (Foronda, 2020).

6. Finally, is the termination stage, at which individuals express certainty of the maintenance of gains and avoidance of relapse. Individual behavior analyst preservice practitioners' express commitment to become disrupters and take actions to dismantle systemic racism from ABA services (Pritchett et al., 2021).

The process of change includes 10 mechanisms that help the individual transition between the different stages (Casey et al., 2005; Norcross et al., 2011; Petrocelli, 2002). These ten mechanisms of change map onto anticipated change in perceptions and behavior for preservice behavior analysts as they move through a preservice training program with embedded DEJI competencies. The first category is defined as experiential and includes: (a) the consciousness raising process, which focuses on increasing individuals' awareness about racism and systemic oppression in ABA; (b) dramatic relief, which refers to the process of eliciting emotional arousal about the need to affect change related to DEJI competencies in ABA; (c) self-reevaluation, which indicates self-reflection as to whether a preservice behavior analyst perceives the need to affect change related to DEJI competencies in ABA as a part of their professional identity; (d) environmental reevaluation, or the process of understanding that by disengaging with DEJI competencies behavior analysts inflict negative effects on their clients; and (e) social liberation, which examines environmental opportunities that show clinicians who choose behavior change towards dismantling racism in ABA is supported by society (Norcross et al., 2011; Petrocelli, 2002).

The second category is defined as behavioral. It includes: (f) self-liberation, which is the belief that preservice clinicians can become anti-racist, compassionate behavior analysts and making a commitment to the process; (g) helping relationships, which refer to the process of identifying supportive relationships for the intended progression of becoming an anti-racist,

compassionate behavior analyst; (h) counter conditioning, defined as the process of replacing disengagement with engagement behaviors for dismantling systemic oppression in ABA services; (i) reinforcement management, which calls for establishing a reinforcement system in which engaging in DEJI competencies is rewarded while disengagement is no longer rewarded, and; (j) stimulus control, suggesting that making environmental arrangements that would serve as reminder cues for preservice ABA clinicians to engaging in DEJI competencies and remove any environmental cues that could potentially encourage disengagement (Norcross et al., 2011; Petrocelli, 2002).

Social Learning Theory

As presented by Albert Bandura (1971), the social cognitive theory centers around the reciprocal relationships between the individual and environment interaction. This theory posits that human behavior is determined by the ongoing interaction between ones' personal factors and environmental variables (Rumjaun & Narod, 2020). The foundation of this theory is acknowledging the impact of environmental factors while simultaneously describing the individual's potential to alter their environments (Lee et al., 2018). Bandura coined the concept of triadic reciprocal determination in which personal factors impact environmental factors and the behavior within all pathways are reciprocal (Rumjaun & Narod, 2020). Personal factors, also called cognitive factors, are referred to as knowledge, expectation, and attitudes (Bandura, 1971). In this model, relevant personal factors include preservice behavior analysts' current knowledge and attitudes about their role of being an active disruptor and their corresponding expectations of their training. Environmental factors refer to social norms, access to community, and influence on others (Bandura, 1971). Social norms for preservice behavior analysts are set by their community (i.e., their training), their access to community, faculty, and peers, and their ability to influence their training to gain the necessary skills to become anti-racist disruptors. The

behavioral factors refer to one's sense of self efficacy, skills, and practices (Bandura, 1971, 1997). The principal investigator expected that the acquisition of knowledge, skills, and reflection on attitudes and belonging to a community that is dedicated to social activism will increase the sense of oneself efficacy of taking on the role to become a member who takes actions to disrupt the inequality in the field of ABA. The cornerstone of this framework is that while learning happens through direct experience, it also happens through observation and modeling of contingencies others encounter (Bandura, 1972, 1985). These include verbal instruction, live, and symbolic modeling. Thus, preservice behavior analysts can learn how to become anti racist by observing their leaders engaging in such activities (i.e., faculty members). These three elements (personal/cognitive, environmental, and behavioral factors) of behavioral determinism overlap with the mechanism of change suggested by the transtheoretical model for change. The following mechanisms can be categorized as personal/cognitive factors: (a) consciousness raising, (b) dramatic relief, (c) self-revaluation, (d) environmental reevaluation, (e) social liberation, and (f) self-liberation. These mechanisms can be categorized as behavioral factors: (g) helping relationships, (h) counter conditioning, (i) reinforcement management, and (j) stimulus control. The environmental factors in this combined model are the social norms of the program, which may foster a community that examines DEJI and actively teaches the skills necessary for compassionate, culturally humble behavior analysts by identifying the DEJI competencies needed for this process.

Prior Pilot Work

The dissertation chair (Dr. Machalicek) and the principal investigator, a board-certified behavior analyst (BCBA) enrolled in a doctoral program in special education, conducted a selective literature review and article selection of ABA literature related to racism during summer of 2020. This non exhaustive literature review yielded 74 conceptual, philosophical, and

intervention articles focused on racism, White supremacy, behavior analytic practices to counter bias, and activism among behavioral analysts. An ancestral search resulted in 35 additional articles. An additional search was conducted during the summer of 2022 to identify additional articles for potential inclusion; this search resulted in four more articles.

In alignment with the identified literature and recent suggestions raised in the ABA literature, doctoral students in Special Education and dissertation chair Dr. Machalicek participated in a regularly meeting workgroup in the fall of 2021 with the aim of using the literature to develop a list of DEJI competencies relevant to the field of ABA and online course material examples. The development group consisted of doctoral candidate Dana Cohen Lissman, dissertation chair Dr. Machalicek, and six additional doctoral level students in special education. The three doctoral students with certification as a BCBA had 21 cumulative years' experience as a BCBA. The dissertation chair had 15 years of experience as a BCBA.

First, the non-exhaustive literature review was supplemented with electronic database searches and special issue searches to identify relevant articles published between 2020 and the present. The titles and abstracts of articles were screened for potential contribution to standards and curricular objectives related to DEJI in ABA. This selection was comprised of articles addressing the gaps, needs, and recommended practices published mainly since the summer of 2020, when the field experienced an increase in call to action and position papers related to DEJI issues. Second, the principal investigator reviewed several exiting professional standards from related fields to inform conception of competencies. These included the National Association of School Psychologists (NASP), the National Association of Social Workers (NASW), the APA Multicultural Guidelines executive summary: Ecological approach to context, identity, and

intersectionality (Clauss-Ehlers et al., 2019) the American Speech-Language-Hearing Association (ASHA, 2008). and the standards provided by Fong and Tanaka in 2013.

The resultant drafted competencies were developed with the goal of providing the foundation for the development of a curriculum interwoven throughout the academic courses and programmatic requirements (i.e., professional colloquia, supervised experience, applied research experience) to ensure ongoing, meaningful opportunities for preservice behavior analysts to reflect on their attitudes and personal experiences, gain knowledge and cultural humility, and practice and build fluency before becoming independent professionals (Connors et al., 2019; Miller et al., 2019; Najdowski et al., 2021). As such, the competency list was broadened beyond addressing racism and anti-racism ally knowledge and behavior to include: (a) ethics and values; (b) cultural awareness and reflective practices; (c) cross-cultural applications with clients and their families when the clients are from different racial and ethnic backgrounds than the behavior analyst, speak nondominant languages, identify as a sexual or gender minority, or have different religious and spiritual backgrounds than the behavior analyst, (d) collaborating with other professionals and supervising implementation of ABA by others in regards to cross-cultural application; and (e) activism to disrupt inequitable systems. Following a draft of the list of competencies provided by dissertation chair Dr. Machalicek and Special Education doctoral student Cohen Lissman, the Special Education students met twice during the Fall 2021 academic term for a total of 3 hours to discuss each item in an effort to reach consensus on whether additional competencies should be included in the drafted list. Thirty-eight competencies were added, 44 competencies were revised, and two competencies were discarded following this discussion. An additional revision supported by the prior literature review and discussion with

workgroup members took place during the summer and fall of 2022. The drafted checklist with 72 competencies is provided in Appendix A.

The Present Study

Through the present study, the researcher aimed to obtain expert consensus on a comprehensive checklist of DEJI competencies that can be used in future curricular revision and development in ABA master's degree programs to ensure adequate preparation of behavior analysts of behavior analysts to successfully serve clients from each and every culture, to prevent disproportionate services and to contribute to the development of meaningful instructional materials. The checklist of DEJI competencies previously developed requires validation by a panel of experts in ABA and DEJI to ensure adequate coverage of core competencies linked to DEJI issues and to ensure the competencies are clearly stated and easily understood by experts in ABA who would themselves be leading curricular changes in higher education. To validate the ABA DEJI competency list with experts in ABA, the principal investigator conducted an online modified closed Delphi study (Jiménez-Rodríguez et al., 2020) with three rounds to develop DEJI competencies relevant to ABA.

Research Questions

1. Which DEJI competencies do practicing board certified behavior analysts (BCBAs) in the ABA field value as important to embed in ABA master's level preservice training programs?
 - a. Which DEJI competencies do practicing BCBAs in the ABA field agree should be included in the final list?
2. How do practicing BCBAs in the ABA field rank order the importance of the competencies they identified as important?

Overview of the Delphi Method

The Delphi method was first adopted in the 1950s by the U.S. RAND Corporation. In its original form, the researcher developed a structured survey to estimate the future of different questions at that time (Heiko, 2012). Contemporary Delphi procedures produce collective judgment, collaborative structure, or knowledge structure (Barnes & Mattsson, 2016). This method employs a systematic, iterative comparative assessment of experts in the field until a predetermined consensus is reached. Unanimity is measured using qualitative, quantitative, or mixed measures (Linstone & Turoff, 2011). Typically, the first phase of a Delphi study is comprised of two to five broad questions that intend to elicit as many responses as possible from the expert panel, which are then used in subsequent phases (Barnes & Mattsson, 2016). In the second phase, the competencies are typically paired to compare their significance. Phase 3 usually consists of a Likert assessment, and Phase 4 entails ranking the objectives screened previously. In the conclusion of the process, the competencies in the agreement are those chosen for inferences (Barnes & Mattsson, 2016; Heiko, 2012; Linstone & Turoff, 2011). The intended product of the Delphi process was a validated DEJI competency-based curriculum for master's-level ABA programs.

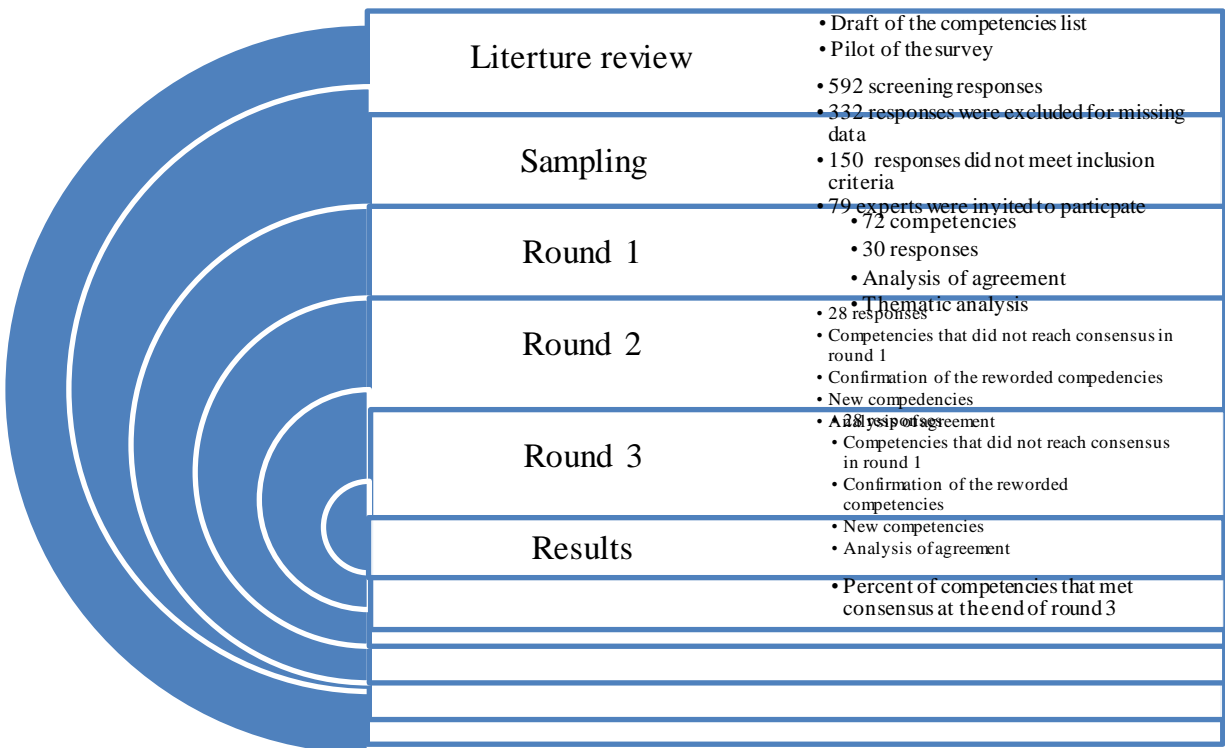
Since the introduction of the Delphi methodology, several modifications have appeared (Strear et al., 2018). For instance, a closed Delphi study replaces the focus group (i.e., the first round) used to generate competencies for the survey with a list of competencies generated by a researcher implemented literature review (Boulkedid et al., 2011; Jiménez-Rodríguez et al., 2020; Keeney et al., 2011). The flexible characteristic of the Delphi method can present a challenge regarding setting criteria for best practice (Strear et al., 2018); however, this methodology is often used when there is limited research or consensus on a topic (Boulkedid et al., 2011; Izaryk & Skarakis-Doyle, 2017; Strear et al., 2018). Thus far, Delphi studies have been

used to (a) forecast future directions of a profession (Strear et al., 2018), (b) determine training methods (Strear et al., 2018), (c) identify detailed practices for a specific population (Izaryk & Skarakis-Doyle, 2017; Jiménez-Rodríguez et al., 2020), and (d) generate professional standards and or practices (Stickl Haugen et al., 2021).

CHAPTER II: METHOD

This section contains a description of the process of conducting the current study, beginning with a discussion about the panel selection, including inclusion and exclusion criteria, the rating process of each panelist, the consent process, the potential for attrition, and strategies for mitigation see Figure 2. A discussion of the materials is next, followed by a consideration of the experimental design and illustrations of the Delphi process, with an outline of the data analysis procedures concluding the chapter.

Figure 2
Abbreviation of the Methodology Steps



Panel Selection

Sampling Strategy

The principal investigator aimed to recruit at least 50 BCBA's as the sample of this study. In the context of this study, BCBA's described those possessing terminal degree of a master's and professional or scholarly experience in DEJI who graduated from verified course sequence in the past 3 years (or more) practicing ABA with individuals in the United States. The principal investigator targeted BCBA's at the master's level as the majority of verified course sequences train students, whether at the undergraduate or master's level, over approximately 2 years. This characteristic of training results in less demand for undergraduate level training, as within a program that trains across 2 years, it was suspected to be more beneficial to acquire a master's degree. Thus, there is less demand for programs at the undergraduate level. In addition, the scope and practice of undergraduate level is different, as behavior analysts at this level cannot practice independently and are under constant supervision of a master's level BCBA (Najdowski et al., 2021). Graduate students demonstrate the ability to reflect on their profession preparation and identify the missing areas needed for training (Beaulieu et al., 2019; Connors et al., 2019). BCBA's at the master's level are best positioned to reflect on their training and current needs of DEJI competencies by having more direct frequent contact with clients and their families in the field.

Nonprobability sampling strategy combining convenience sampling and snowballing (Strear et al., 2018; Tracy, 2019). Potential panelists were identified through social media of different behavior analysts' groups (i.e., Black in ABA, the ABA task force, Social justice behavior ABA, Research in ABA, Latino association for behavior analyst) and through states' Association of Behavior Analysis International (ABAI) chapters (e.g., Oregon Association for Behavior Analysis) The principal investigator provided included panelists with a written

description of the minimum and preferred qualifications for inclusion in the study and asked the panelist to identify other BCBAAs potentially meeting these criteria who may wish to serve as panelists. Program directors of BACB course verified sequences were also contacted to help disseminate the information about the study to their past graduates. Recruitment continued until at least 50 individuals consented to full participation in the study.

Inclusion and Exclusion Criteria

The eligible participants satisfied the following minimum criteria: (a) possessing a terminal degree of master's degree in ABA, education or special education, psychology, counseling, or related fields; (b) holding a current certification as a board-certified behavior analyst BCBA and having been certified as a BCBA for at least 3 years; and (c) currently practicing ABA with any human population in the United States in good standing. Potential panelists were excluded from further consideration if they did not meet these minimum criteria.

Preferred criteria included the following: (a) identifying as Black, Indigenous, person of color, or other minority groups (i.e., as a sexual or gender minority), and (b) having documented professional or scholarly experience with DEJI work in the field of ABA consisting of at least one product (e.g., professional presentations or trainings, peer-reviewed articles, book chapters, or textbooks). Professional or scholarly experience was confirmed by an online search of available documentation (e.g., curriculum vitae on professional website, Research Gate, Web of Science citations, professional development sites) and a search of presentations accepted for the ABAI Annual Conference in Boston May 2022 or BCBA leadership positions (i.e., a member of University DEI task force, ABAI State Chapter leadership role, intramural or extramural grants with a focus that includes DEI).

Rating Potential Panelists. Prior to the invitation to participate in the study, the principal investigator and dissertation co-chair (Machalicek) independently reviewed potential

panelists meeting minimum qualifications for inclusion. Each potential panelist was rated on the aforementioned preferred criteria using assigning a score of 0 (i.e., does not meet criteria), 1 (i.e., meets criteria), or 2 (i.e., exceeds criteria) using an 8-item Excel rating sheet developed by the principal investigator with BIPOC BCBAAs receiving 2 priority points (see Appendix C). All potential panelists meeting minimum qualifications for inclusion were ranked from highest to lowest score on the preferred qualifications for inclusion. The principal investigator and dissertation chair (Machalicek) discussed disagreements and reached consensus on which 50 panel members to invite first to participate in the study.

Consent. This study employed a dual consent process. First potential panelists consented to participate in a screening process that determined whether they met inclusion and preferred criteria. Eligible individuals were asked to consent to participate in the modified Delphi study. Panelists were informed of the general study procedures, the potential benefits, and the limited risk anticipated for participation in this process. They were informed that they could withdraw their consent to participate at any point during the study. Each identified panelist indicated willingness to participate as a part of the recruitment process. Once screened for meeting the inclusion criteria, a link to the consent form was sent along with the Delphi survey. Completed informed consent forms are stored on Qualtrics. As there was a time gap between the initial consent and the first round of the Delphi study, participants were reminded of their rights as a research participant prior to starting the first round.

Attrition

Keeney et al. (2011) recommended a 70% response rate across each round of the Delphi study to minimize response bias. Previous work done with similar populations, was 78% (McCafferty, 2022). Based on the anticipation of a high rate of attrition (78%) for the proposed sample size, a 20% response rate would require recruiting 50 experts to meet the minimum

criteria of 15 (Birko et al., 2015; Keeney et al., 2011) panelists for each round. Accordingly, efforts were made to minimize attrition of panelists, but due to the iterative nature of the design, additional panelists would not have been recruited if the response rate fell below 50 panelists. First, a closed survey was used to minimize time allocation demands on participants. Expectations and the importance of participation to minimize response bias was communicated clearly in the recruitment process to the panelists. The panelists had 4 weeks to complete the survey to allow for sufficient time to fit their schedule. Frequent email communication and reminders were also used to assist in preventing attrition (Strear et al., 2018). A \$10 gift card was issued for the completion of Rounds 1 and 2, a \$50 gift card was offered to participants who completed the third round, and an additional \$100 gift card was raffled among participants who completed the third round. Lastly, at the conclusion of the final round, panelists had the opportunity to review the finalized competency list and to request or decline public acknowledgement of their contribution to development. Those panelists who asked for public acknowledgement are named in the dissertation and will be in any subsequent professional presentations or publications. For panelists who declined the offer of acknowledgement by name, only their basic demographic data (i.e., terminal degree, position title, years' experience as BCBA, primary and secondary human populations, number of publications related to DEJI) are reported in the dissertation, professional presentations, and publications. In each round, the principal investigator aimed for an 90% response rate; reminders and reinforcing messages were used to increase the likelihood of meeting this stringent criterion; however, no additional recruitment occurred after the disbursement of the round 1 survey. Attrition is reported as a limitation of the study.

Panelists

A total of 592 responses were recorded for the screener. Three hundred and thirty-two responses were eliminated based on repeated IP addresses, incomplete information or lack of verification of their certification number. One hundred and twenty of the responses were BCBA's at the Ph.D. level, and 150 responses met the eligibility criteria. Out of the 150 eligible responses seventy-nine participants were invited to complete the Delphi survey based on the budget available for compensation; of those who consented to participate and agreed to the timeline for completion, 30 (38.3%) completed the first survey round between January and February 2023. Fifteen of the panelists identified as White and 15 of the panelists identified as a person of color; four identified as mixed race, five identified as Latino, two identified as Asian, three identified as Black, one identified as Native/Pacific Islander, and one marked "not listed." Most participants identified as cisgender women ($n = 26$ panelists; 87%) with an average age of 28 years old (Range = 26–47 years of age). Panelists reported experience as a BCBA representing a range of years of experience from 3–14. Panelists represented five regions across the United States: (a) East Coast, (b) Midwest, (c) South, (d) Southeast, and (e) Pacific Northwest. Seven of the 30 participants reported having past experience in a DEJI related leadership role (e.g., member of the ABAI DEI committee, a member of University DEI task force, ABAI State Chapter leadership role, intramural or extramural grants with a focus that includes DEI) or having published scholarly work about DEJI issues. For more details, see Table 2.

Table 2*Demographic Characteristics of the Panelists*

	<i>n</i>	<i>%</i>
Race		
African American or Black	4	13.3
Asian	4	13.3
White	17	56.7
Hispanic and Latinx/Latina	3	10.0
Native Hawaiian and Pacific Islander	1	3.3
Not Listed	1	3.3
Gender identity		
Female	26	92.9
Male	2	7.1
Nonbinary	0	0
Not listed	2	7
Years of Experience – Mean [Standard Deviation]	7.121	[3.802]
Age in Years – Mean [Standard Deviation]	36.41	{5.179}
Graduate level		
Master's	30	100.0
Specialization		
All disabilities (school based)	1	2.5
ASD/Autism	24	80.00
Developmental Disabilities	8	20.0
Disadvantaged Youth	1	2.5
Emotional and Behavioral Disorders	3	10.00
OHI	1	2.5
Special Education	2	5.0
Geographic area		
California	6	21%

Table 2 Continued

Central	1	3.6
Colorado	2	7.1
Georgia	1	3.6
Indiana	1	3.6
Midwest	8	28.6
Missouri	1	3.6
North Carolina	1	3.6
Nevada	1	3.6
Seattle	1	3.6
Southeast	1	3.6
Southwest	2	7.1
Texas	1	3.6
Virginia	1	3.6
DEI experience		
No	21	75.0
Yes	7	25.0
Years of DEI experience		
2 and counting	1	50.0
less than 1 year	1	50.0
DEI peer review		
N/A – no publications on this topic	27	96.4
One specific to DEI in ABA, and several others focused on underrepresented minorities in disability research and international	1	3.6

Materials***Demographic Screening Questionnaire***

Participants were asked to complete a 9-item online demographic questionnaire through Qualtrics, consisting of both closed- and open-ended questions. The purpose of this questionnaire

was to allow panel members to report on their race, ethnicity, age, gender identification, terminal degree, number of years of experience as a BCBA, DEI activities, and region of service. The participants' completion of this questionnaire preceded the consent to participation as a panelist for the subsequent modified Delphi study.

Delphi Survey

The 72-item survey was developed to examine the perceived importance, clarity, and feasibility of each competency on the drafted DEJI competency list (see Appendix A). The survey was piloted with one Ph.D. candidate and five Ph.D. faculty members in the Special Education Department at the University of Oregon and judged to take approximately 45–60 minutes to complete. Initially, the survey contained 82 competencies; after a round of feedback from committee members and two additional faculty, competencies were folded into cross-culture application to address some redundancies targeting cross-cultural application with clients and families from different races, ethnicities, or spiritual and religious backgrounds, those who speak nondominant language, and those who identify as sexual and gender minorities. Panelists were asked to answer the following questions for each competency (i.e., survey item): (a) Please rate the importance of the competency for preservice BCBAs) on a scale of 1–9 (Birko et al., 2015; Keeney et al., 2011; Vogel et al., 2019); (b) Would you recommend inclusion or exclusion of this competency on a preservice competency list? (Inclusion or Exclusion choice); and (c) Do you have any suggestions for improving the clarity of the description of this competency? (Open text); At the end of each section of the survey, panelists were asked, “Is there any competency in this section (named section) that we have not described but you believe should be considered?” (Open text). In addition, at the end of each section panelists were asked to rank order the importance all the competencies in each section. Panelists were not allowed to skip any survey item. At the end of the survey, panelists were thanked for their time and contribution and

provided with an expectation of when they would hear from the principal investigator next. The survey was created and stored using Qualtrics survey software. The complete survey is included in Table 4.

Experimental Design

Modified Closed Delphi

This investigation was a modified Delphi study (Boulkedid et al., 2011; Jiménez-Rodríguez et al., 2020; Keeney et al., 11) with three rounds to refine the DEJI standards. As the researcher selected a closed Delphi procedure, an initial standard list was distributed to a panel of identified experts in the field of ABA who preferably have expertise and publications in the areas pertaining to DEJI standards and application in ABA. The modified Delphi study mainly used rating scales and limited the use of open-ended questions. Survey rounds were designed to take approximately 45–60 minutes to complete. The first round was expected to take longer than subsequent rounds as participants reviewed the entire standard list for the first time.

Development of Initial Competencies

During the summer of 2020, the dissertation chair (Dr. Machalicek) and the principal investigator, a doctoral-level board-certified behavior analyst student, undertook a selective review of the literature and article selection of ABA literature linked to racism (Machalicek et al., 2021). This non-exhaustive examination of the literature revealed 74 papers on racism, White supremacy, and behavior analytic approaches to challenge bias and activism. An ancestral search was also conducted, yielding 10 additional articles. An additional search was carried out throughout the summer of 2022 to update the articles and yielded four additional articles. See Appendix D for a complete list of the articles included.

As a result, the competency list was expanded beyond addressing racism and anti-racism ally knowledge and behavior to include: (a) ethics and values; (b) cultural awareness and

reflective practices; (c) cross-cultural application with clients and their families; (d) collaborating with other professionals and supervising implementation of ABA by others in terms of cross-cultural application; and (e) activism to disrupt racism. During the summer and fall of 2022, additional revisions based on the preceding literature research and discussions with work group members were completed, and the drafted checklist of 72 competencies was finished and agreed upon.

General Procedures

After the panel members were identified, the researcher individually emailed each panelist with a reminder of their rights (i.e., informed consent) and the link to the first Qualtrics survey. This email was sent on Monday morning to minimize the chance that the email would be missed. Four weeks were provided to the panelist for completion of the survey during each implemented round (i.e., deployment of survey). To increase the likelihood of completion, several reminders were provided via email: 1 week prior to the due date, 3 days prior to the due date, 1 day prior to the due date, and the day the survey was due for completion. Completions after the due date were not included in the final analysis.

Round One. Each panel member was provided with a survey that included all 72 competencies (i.e., competencies) for individual ratings. The survey comprised a 9-point Likert scale (Finstad, 2010; Sullivan & Artino Jr., 2013) and an open-ended question after each competency regarding its clarity. The first-round online survey was expected to take approximately 45–60 minutes for the panelists to complete. This format was used to minimize the length of the survey and reduce the time burden on participants. Participants were asked to rate each item on: (a) Rate the importance of the competency for preservice behavior analysts; (b) Should the item be included in the final preservice competency list? (Inclusion or Exclusion choice); and (c) do you have any suggestions for improving the clarity of the description of this

competency? (Open text). At the end of each section of the survey, panelists were asked, (d) “Is there any competency in this section (named section) that we have not described but you believe should be considered?” (Open text box). At the end of each section, panelists were asked to rank the order of the importance all the competencies in each section. The open-ended question allowed for the panel members to add or describe standards based on each panelists’ experience and expertise.

Rounds Two and Three. In Round 2, the survey included only competencies that did not reach consensus in Round 1. Round 3 followed the same protocol as the previous round. Participants were asked to re-rate the competencies that did not reach consensus in Round 1 (Stickl Haugen et al., 2021) considering: (a) their original rating; (b) their colleagues’ ratings; (c) the descriptive data central tendency (i.e., mean and mode) and level dispersion (i.e., standard deviation and inter-quartile range IQRs), and (d) the additional competencies identified by open-ended questions. Round 2 aimed to refine the selection, and this was done by providing each member with their individual scores compared to the overall group score for each item. For example, “On item number 2, ‘behavior analyst shall be knowledgeable about White supremacy and the structural violence of racism that BIPOC clients experience in the United States’, your score rated this item as a 5, the groups’ mean was 6, the median was 6 and the mode was 5, would you like to reconsider the rating once compared to the groups’ overall rating?” Each participant was provided with their rating of each item and the whole group mean, mode, and standard in the form of a histogram with bullet points of their peers rating. This was done to help each panel member consider their rating compared to their colleagues to potentially reach consensus for each item. Additionally, the wording of competencies was revised based on feedback regarding clarity of the description.

Analysis

Thematic Analysis

The open-ended questions at the end of each section were analyzed using thematic analysis (Barnes & Mattsson, 2016; Izaryk & Skarakis-Doyle, 2017; Moynihan et al., 2015). The principal investigator then identified new themes that draft additional new competencies that were included in subsequent round. Similarly, the principal investigator identified repeated themes of responses feedback and suggestions for clarity of the competencies and suggested rewording accordingly.

Consensus

Interquartile Range (IQR)

Birko et al. (2015) described an evaluation of the nine strategies to determine census in Delphi studies. The De Moivre index (DM) determines unanimous agreement on a rating for a survey question using a score of 0–1. It has no range of agreement therefore does not meet the needs of this study. Pairwise agreement (PWA) all panelists have a pair, and they must agree with each other. Then, the proportion of the pairs who agreed with each other, the average proportion of all question would be the PWA. Clustered pairwise agreement (CPWA) is the average over all questions of the proportions of pairs of panelists in each consensus cluster over all possible pairs of panelists. Extremities version of the clustered pairwise agreement (XCPWA) is described next, it looks at the frequency of ratings falling within either the lower or upper extreme ranges of points on the scale. These four strategies all use pairing of panelists. This study examined consensus across all panelists. Fleiss' Kappa (FK) ranges 0–1, measures the percentage all questions. This study examines consensus per item. Conger's Kappa (CK) chooses random number of raters, multirater indices of consensus measure agreement between panelists over that which would be expected by chance. Here too, the principal investigator sought to

examine the agreement across all panelists. The next two strategies described is the mode, M, defined as the proportion of panelists who chose the score most popular in rating that object. Clustered Mode (CM) calculates the proportion of panelists who chose the cluster of scores most popular in rating the object. The mode by itself does not inform about the distribution around it; therefore, it is missing critical information to determine consensus for this study. The IQR, which provides the spread of the middle 50% of the data, is the measure of dispersion for the median. This measure provides the distribution of the scores around the mode, an aspect critical for defining consensus. The IQR offers the most stable results when the item numbers and number of participants vary; it is commonly used in Delphi studies (Boulkedid et al., 2011; Jiménez-Rodríguez et al., 2020; Keeney et al., 2011; Vogel et al., 2019).

Mode, Interquartile Range, and Percentage of Agreement

For each round of the Delphi survey, panelists' survey responses were imported into SPSS and analyzed. A predetermined median of 6 or higher on the importance Likert scale was used to indicate agreement that the panelists believe the DEJI competency to be important for inclusion. For each round, panelist scores were aggregated, and central tendency measures were used to determine which competencies were included in the next survey round. competencies with an IQR greater than 1 were included if the percentage of agreement on the question "Should this item be included in the final list? Yes/no" was higher the 80% (yes). Outlier responses and opinions were discussed between the principal investigator and dissertation chair to gain consensus on the inclusion or exclusion of the item or consider its wording for the next survey round. Next, the survey was revised based on the responses of the panel and the measures of central tendency for each item for distribution in Round 2 and Round 3.

CHAPTER III: RESULTS

Introduction

Through this study, the principal investigators sought panelist agreement on a comprehensive checklist of DEJI competencies that could be used in future curricular revision and development in ABA master's degree programs to ensure adequate preparation of behavior analysts and to contribute to the development of meaningful instructional materials. The previously developed checklist of DEJI competencies required validation by a panel of ABA and DEJI panelists to ensure adequate coverage of core competencies related to DEJI issues and to ensure that the competencies were clearly stated and easily understood by ABA experts who would be leading curricular changes in higher education. The principal investigators conducted an online modified closed Delphi study (Khodyakov et al., 2020) to establish DEJI skills relevant to ABA with a minimum of two rounds and a maximum of three rounds to validate the ABA DEJI competency list with ABA panelists (i.e., practicing BCBAs). The study was guided by the following two research questions:

1. Which DEJI competencies do practicing board certified behavior analysts (BCBAs) in the ABA field value as important to embed in ABA master's level preservice training programs?
 - a. Which DEJI competencies do practicing BCBAs in the ABA field deem to be included in the final list?
2. How do practicing BCBAs in the ABA field rank order the importance of the competencies they identified as important?

Three survey rounds were utilized to develop consensus using the Delphi approach. A 72-item survey was designed to assess the perceived importance, clarity, and feasibility of every competence on the DEJI competency list. Panelists were asked to rank each competency's

importance for preservice BCBAAs on a scale of 1–9 and whether they would propose including or excluding it from a preservice competency list. Furthermore, they were asked in an open text response whether they had any suggestions to improve the clarity of the description of this competence. At the end of each section, they indicated there was no competency that was not stated but that they thought should be addressed. Panelists were eventually asked to rank in order the importance of every issue addressed in every section at the end of each section. Panelists were not permitted to skip any of the survey competencies.

As panelists studied the whole competencies list for the first time, the first round was expected to take longer than subsequent rounds. In Round 1, each panel member was given a survey with all the 72 competencies for individual rating, which took roughly 45–60 minutes to complete. Only competencies that did not reach consensus in Round 1 were included in Round 2. Through the second round, the principal investigators refined the choices by comparing each member's individual scores to the aggregate group score for each competency. The third round followed the same format as the previous one. Each participant was given a rating for each competency, as well as the mean, median, and standard deviation for the entire group. This was done to assist each panel member in considering their rating in relation to their colleagues in order to establish consensus on each issue. Furthermore, the wording of competencies was altered in response to feedback regarding the clarity of the description. The study results are presented later in this chapter, followed by a summary of the findings.

Data Collection

This study's panelists were BCBAAs with a master's degree. A nonprobability sampling strategy combining convenience sampling and snowballing was used to identify and recruit panelists via social media of various behavior analyst groups (e.g., Black in ABA, the ABA task force, social justice behavior ABA, research in ABA, Latino association for behavior analyst)

and state ABA organizations (e.g., Oregon Association for Behavior Analysis (ORABA), etc.). The following were the preferred eligibility criteria: (a) identifying as Black, Indigenous, Person of Color, or other minority groups; (b) having documented professional or scholarly experience with DEJI work in the field of ABA, including at least one scholarly documentation; (c) being employed in a leadership position; and (d) having served in an underrepresented region of the country. The following section presents results grouped by each research question followed by detailed results of each round.

Results

Which DEJI competencies do practicing board certified behavior analysts (BCBAs) in the ABA field value as important to embed in ABA master's level preservice training programs?

By the end of round three there was an overall consensus about 89% of the suggested competencies with 93% competencies reached consensus under ethics and values, 100% of the competencies reached consensus under cultural awareness and reflective practices, 94% of the competencies reached consensus under awareness of others and cultural humility, 94% of the competencies reached consensus under cross cultural application and 90% of the competencies reached consensus under disrupting inequitable system. The Delphi competencies for each of the six domains are summarized in Table 3. The number of competencies where consensus was achieved improved for each domain from Round 1 to Round 3. The descriptive statistics of mean, median, SD, and IQR for each competency for all three rounds are summarized in Tables 5, 9, and 10. Furthermore, the tables include consensus on the inclusion question, denoted by a binary yes/no. Table 12 provides a summary analysis for rounds one, two and three of inclusion of competency using binary responses.

Table 3*Summary of Consensus of Grouped Competencies by Domain*

Competency Domains	Number of Competencies Presented in Each Domain			Proportion of Competencies Where Consensus Was Achieved		
	Round 1	Round 2	Round 3	Round 1	Round 2	Round 3
	Ethics and values	14	3	1	11 (78.6)	2 (66.7)
Cross-cultural application	19	3	1	14 (73.6)	2 (66.7)	1 (100.0)
Cultural awareness and reflective practices	5	1	2	(75)	1 (100.0)	–
Cross-Cultural application with gender minority clients	9	3	3	6 (66.6)	0(0.00)	1 (33.3)
Cultural application with clients from different religious and spiritual backgrounds	4	4	0	1 (25.0)	2 (50.0)	–
Disrupting inequitable systems	11	3	2	9 (18.2)	1 (33.3)	1 (50.0)
Total	72	17	9	28 (38.9)	8 (47.1)	6 (66.7)

Which DEJI competencies do practicing BCBAs in the ABA field deem to be included in the final list?

Table 4 presents the top scored competencies for each domain in terms of the means of the Likert scores given by the panelists. The competencies with the highest means were in the ethics and values domain. Cultural application with clients from various religious and spiritual backgrounds received the lowest mean score of 7.97 among the top ranked competencies in each domain. Table 7 provides the ranking, means and standard deviation of the Likert scores of each of the competencies.

Table 4
Top Scored Competencies per Domain (Based on Means)

Domain	Competency	Mean	Standard Deviation
Ethics and Values	Preservice behavior analysts are knowledgeable about the profession's values, ethics, and standards	8.452	1.767
Cross-Culture application	Preservice behavior analysts effectively convey assessment results to families from different cultural backgrounds.	8.161	2.035
Cultural Awareness and Reflective Practices	Preservice behavior analysts acknowledge and reflect on the sources of implicit and explicit bias, and practice ways to counter these biases.	8.161	1.846
Awareness of Other Cultures and Cultural Humility	Preservice behavior analysts demonstrate knowledge of systemic oppression of individuals with a disability, especially at the intersection of disability and race/ethnicity.	8.387	1.801
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority	Preservice behavior analysts examine their own bias, attitudes about, and knowledge of sexual orientation, gender identity, and gender expression may impact their practices in ABA, particularly the services they provide to LGBTQAI+ clients.	8.194	1.887
Cultural Application with Clients from Different Religious and Spiritual Backgrounds	Preservice behavior analysts understand that clients may have spiritual, religious, or secular beliefs and affiliations that might not align well with the philosophy and worldview underlying ABA practices.	7.968	1.923
Disrupting Inequitable Systems	Preservice behavior analysts understand the behavioral approach for addressing bias and racism (e.g., behavior assessment, intervention, monitoring).	8.290	1.774

Round One

Consensus was judged to have been established for inclusion in the final competencies list for each competency item with a median of 6 or greater and an IQR of 1 or lower and competencies that gained 80% consensus on the question of inclusion as indicated by a binary yes/no. For this round, competencies that were considered to have achieved consensus for inclusion in the final competencies list included competencies with a median of 6 or greater and an IQR of 1 or less and competencies that reached 80% consensus on the question of inclusion as indicated by a dichotomous yes/no. Based on the criteria of a median of 6 with an IQR of 1 or less, 26 competencies (36%) met criteria (i.e., panelists agreed these 26 competencies (see Table 5) were necessary for training preservice behavior analysts. Based on the percentage of agreement of median of 6 or higher with minimum of 80% yes rating, 31 additional competencies (42%) of the competencies were marked for inclusion in the final competency list while 16 (22%) of the competencies were selected to remain in the survey for the second round (see Table 5). The distributions of the number of competencies receiving consensus for the categories were as follows: Ethics and values received 9 out of 14, cross-cultural application received 14 out of 19, cultural awareness and reflective practices received 4 out of 5, awareness of other cultures and cultural humility received 7 out of 10, cross-cultural application with gender minority clients received 6 out of 9, cultural application with clients from different religious and spiritual backgrounds received 3 out of 4, and disrupting inequitable systems received 9 out of 11.

Thematic Analysis. All panelists were able to provide qualitative responses to the open-ended questions “Do you have any suggestions for improving the clarity of the description of this competency?” Using thematic analysis, the researcher examined the suggestions for rewording competencies, of which yielded 15 reworded competencies (see Table 6). The principal

investigator examined themes that were repeated at least by two different responses. The suggested reworded competencies were corroborated in round 2 by presenting those to participants followed by a question “does this change improve the clarity of the proposed competency?” (yes/no).

Thematic analysis of the open-ended question at the end of each section (i.e., “Is there any competency in this section (named section) that we have not described but you believe should be considered?”) yielded two new competencies: one under ethics and values (“Preservice behavior analysts seek education and continue professional development related to cultural responsiveness and cultural humility”) and one under disrupting inequitable systems (“Preservice behavior analysts identify social and economic barriers that impact access to care and work to limit these barriers in clinical practice”).

Table 7 summarizes the panelists’ ratings of the individual categories in terms of their most essential components to include. “Preservice behavior analysts can identify ethical dilemmas that arise in collaboration with clients from nondominant cultures or cultures different than their own” ($M = 10.8$, $SD = 2.797$) was the competency with the highest score scores in the ethics and values category. Following that was an item titled “Preservice behavior analysts demonstrate applications of community-based participatory research (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process) practices in behavior analytic research that prevent exploitation and harm to vulnerable populations” ($M = 10.0$, $SD = 3.842$). With a mean of 7.03 ($SD = 1.866$), the most ranked competencies in the domain of cross-cultural application with clients who identify as a sexual or gender minority were about “Preservice behavior analysts can list best practices for outreach to LGBTQAI+ communities including representation in outreach materials

(i.e., brochures and websites).” “Preservice behavior analysts understand the role of conversations with clients about their spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs” ($M = 2.73$, $SD = 0.944$) was the highest ranked competency under the domain of cultural application with clients from different religious and spiritual backgrounds. Cross-cultural applications domain, which had 19 competencies under it, had this item receiving the highest-ranking score; “Preservice behavior analysts understand when to appropriately seek cultural brokerage (bridging, linking, or mediating between groups or persons of differing cultural backgrounds to reduce conflict or produce change), professional development, or when to refer to other behavior analysts when providing ABA services to clients with different spiritual, religious, and secular.

Table 5*Round One Descriptive Statistics of the Suggested Competencies, Ascending Order of the IQR consensus and the Binary Response*

Domain	Competency Description	Mean	Median	SD	IQR	Yes/No
<i>Ethics and Values</i>						
	Preservice behavior analysts are knowledgeable about the profession's values, ethics, and standards.	8.452	9	1.767	0	97
	Preservice behavior analysts demonstrate practices allowing client assent and consent (where relevant) to assessment and intervention for populations with limited language proficiency.	8.387	9	1.764	0	93
	Preservice behavior analysts demonstrate culturally responsive ethical decision-making skills during clinical practice and research.	8.226	9	1.875	1	97
	Preservice behavior analysts demonstrate the use of client-centered practices to increase client engagement during an assessment, intervention, and progress monitoring.	8.161	9	1.809	1	97
	Preservice behavior analysts are aware of their personal and professional limitations in working with diverse clients.	8.194	9	1.887	1	93
	Preservice behavior analysts demonstrate incorporating client voice in social validity measures (e.g., questionnaires, interviews, behavioral observation measures including assessment of client affect and indices of happiness) used in clinical practice and research.	8.129	9	1.928	1	93
	Preservice behavior analysts demonstrate how to plan for and effectively communicate during ethical dilemmas related to differences in opinions, values, agendas, histories, etc.	7.871	9	1.893	1	87
	Based on their self-identified personal and professional limitations, preservice behavior analysts demonstrate when and how to make appropriate referrals to other behavior analysts or professionals with relevant experience and specialized knowledge of the client's culture.	8.065	9	1.788	1	83
	Preservice behavior analysts prioritize client outcomes and wellbeing over personal and/or professional gains.	7.968	9	2.121	1	80
	Preservice behavior analysts can identify ethical dilemmas that arise in collaboration with clients from nondominant cultures or cultures different than their own.	7	8	1.807	1	73
	Preservice behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.	7.516	8	2.204	2	73
	Preservice behavior analysts demonstrate applications of community-based participatory research (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process) practices in behavior analytic research that prevent exploitation and harm to vulnerable populations.	6.968	8	2.456	3	83
	Preservice behavior analysts can discuss the Behavior Analyst Certification Board (BACB) ethical code and identify the gaps related to diversity, equity, justice, and inclusion that still need to be addressed.	6.71	7	1.829	2	78
	Preservice behavior analysts demonstrate knowledge of community-based participatory research practices (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process)	6.807	7	1.973	2	70
<i>Cross-Culture Application</i>						
	Preservice behavior analysts will be attentive to diverse clients' and colleagues' values, beliefs, and fears that could affect intervention participation.	8.032	9	1.853	1	93

Table 5 Continued***Cross-Culture Application***

Preservice behavior analysts effectively convey assessment results to families from different cultural backgrounds.	8.161	9	2.035	1	90
Preservice behavior analysts demonstrate the use of instructional/intervention materials that validate and consider clients' cultural, linguistic, spiritual, racial, and gender identities.	7.903	9	1.972	1	90
Preservice behavior analysts demonstrate the ability to construct culturally relevant intervention goals in collaboration with clients from nondominant cultures or cultures different than their own.	7.968	9	1.991	1	90
When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst recognizes that the client's beliefs about the variables of human behavior and learning might differ from their own.	8.032	9	2.057	1	90
Preservice behavior analysts use appropriate culturally sensitive methodological approaches, skills, and techniques that reflect the professionals' understanding of the role of culture, spirituality, and gender identity in the life of the client.	7.968	9	1.835	1	87
Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among Asian Americans, LGBTQAI+) and demonstrate cultural humility in determining their client's values and preferences and worldview. Cultural humility is defined as self-reflection and self-critique whereby the individual learns about another's culture, but one starts with an examination of her/his own beliefs and cultural identities.	8.032	9	1.923	1	80
Preservice behavior analysts are aware of potential power dynamics and information inequities that may be present when clients and colleagues are from different backgrounds and identities than their own.	7.839	9	1.899	2	93
Preservice behavior analysts incorporate two-way communication and feedback loops during the intervention and research activities.	7.613	9	2.231	2	83
Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among Asian Americans, LGBTQAI+) and demonstrate cultural humility in determining their client's values and preferences and worldview. Cultural humility is defined as self-reflection and self-critique whereby the individual learns about another's culture, but one starts with an examination of her/his own beliefs and cultural identities.	7.903	9	1.868	2	80
Preservice behavior analyst understands that a client from a different cultural background may perceive the use of language differently and understands the role of this difference in socio-pragmatic rules in communication breakdown. Examples include requests or topics that are culturally inappropriate for one of the parties, given the context or use of personal address, bodily distance, and nonverbal communication seen as disrespectful or nonengaged by one of the parties.	7.71	9	2.239	2	77

Table 5 Continued

Cross-Culture Application

Preservice behavior analysts understand when to appropriately seek cultural brokerage professional development, or when to refer to other behavior analysts when providing ABA services to clients with different spiritual, religious, and secular beliefs and affiliations, different race, and ethnicity, different gender identity, than their own. Cultural brokerage is defined as bridging, linking, or mediating between groups or persons of differing cultural backgrounds to reduce conflict or produce change.	7.645	9	1.992	2	73
Preservice behavior analysts demonstrate how to plan for and effectively communicate during situations related to differences in opinions, values, agendas, histories, etc.	7.774	8	1.159	2	93
Preservice behavior analysts can identify potentially problematic items on commonly used standardized assessment tools in ABA for culturally diverse clients.	7.903	8	1.739	2	90
Preservice behavior analysts demonstrate knowledge of how to extend ABA interventions to bilingual clients from different cultural backgrounds other than their own.	7.484	8	1.998	2	80
Preservice behavior analysts can identify resources for educating clients, supervisees, and colleagues about inclusive behaviors towards historically marginalized communities (i.e., BIPOC, special education and LGBTQAI+ communities).	7.677	8	1.887	2	77
When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst can identify when misunderstandings occur due to intercultural communication breakdown.	7.581	8	2.013	2	70
Preservice behavior analysts demonstrate effective use of noncolonial strategies in applied behavior analysis, including active participation in developing treatment goals and services by clients and interested parties.	7.258	8	2.19	3	80
Preservice behavior analyst understands the practice and role of cultural brokerage in easing culturally based misunderstandings and improving communication when the behavior analyst is from a cultural background different from their client. Cultural brokerage is defined as bridging, linking, or mediating between groups or persons of differing cultural backgrounds to reduce conflict or producing change.	7.032	7	2.025	3	60

Cultural Awareness and Reflective Practices

Preservice behavior analysts acknowledge and reflect on the sources of implicit and explicit bias, and practice ways to counter these biases.	8.161	9	1.846	1	90
Preservice behavior analysts acknowledge and reflect on the historical and cultural context different clients and colleagues bring to the team, particularly those systematically excluded from research and intervention.	7.613	8	1.944	2	87
Preservice behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values, and practices and demonstrate practices that minimize their imposition of these beliefs, values, and practices onto their clients.	7.774	8	1.892	2	83
Preservice behavior analysts demonstrate self-awareness of their own personal, and cultural values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.	7.419	8	1.911	3	73

Cultural Awareness and Reflective Practices

Table 5 Continued

Preservice behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values and practices and demonstrate practices that minimize their imposition of these beliefs, values and practices onto their clients.	6.871	7	1.628	2	80
<i>Awareness of Other Cultures and Cultural Humility</i>					
Preservice behavior analysts demonstrate knowledge of systemic oppression of individuals with a disability, especially at the intersection of disability and race/ethnicity.	8.387	9	1.801	0	93
Preservice behavior analysts use authentic engagement and active listening, self-reflection practices and an approach of cultural humility when working with clients and supervisees with different cultural or sexual identities other than their own to disrupt potential power imbalances and identify shared values.	8.129	9	2.061	1	97
Preservice behavior analysts understand practices that can provide or advocate for the provision of information, referrals, and services in the language appropriate to the client, which may include the use of interpreters.	8.097	9	1.938	1	97
Preservice behavior analysts demonstrate awareness of the legal, ethical, and practical issues related to language translation and the appropriate use of interpreters in assessment and intervention for non-English-speaking clients.	7.807	9	1.957	2	90
Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among African Americans, individuals who identify as sexual and gender minority) and demonstrate cultural humility in determining their client’s values and preferences and worldview.	7.839	9	2.083	2	87
Preservice behavior analysts demonstrate knowledge about White supremacy and the structural violence of racism that Black, Indigenous, and other people of color experience in the United States.	7.936	9	1.931	2	80
Preservice behavior analysts demonstrate knowledge of anti-racist and anti-bias actions with various identities and cultures.	7.807	9	2.024	2	77
Preservice behavior analysts document knowledge of social determinants of health and behavior including racism and poverty.	7.807	8	1.869	2	83
Preservice behavior analysts demonstrate knowledge about the history of measurement development and how it has been historically used to harm people with disabilities and people of color (IQ, adaptive behavior, mental health).	7.516	8	1.947	2	77
Preservice behavior analysts demonstrate understanding of acculturation (the assimilation to a different culture, typically the dominant one) processes, intergenerational dynamics, and the challenges faced by recent immigrants to a culture different than their home culture.	7.516	8	1.947	2	73
<i>Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority</i>					
Preservice behavior analysts examine their own bias, attitudes about, and knowledge of sexual orientation, gender identity, and gender expression may impact their practices in ABA, particularly the services they provide to LGBTQAI+ clients.	8.194	9	1.887	1	100
<i>Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority</i>					
Preservice behavior analysts know how to adapt interventions and use culturally responsive teaching and training strategies when working with clients and families who identify as a sexual or gender minority.	8.065	9	1.861	1	97

Table 5 Continued

Preservice behavior analysts demonstrate an understanding that people have diverse sexual orientations, gender identities, and gender expressions that intersect with other identities and contexts.	7.807	9	2.167	2	87
Preservice behavior analysts demonstrate the use of identity-affirming practices with transgender and gender nonconforming (TGNC) clients, supervisees, and colleagues.	8	9	1.949	2	83
Preservice behavior analysts demonstrate an understanding that gender is nonbinary with a range of gender identities and expressions and that gender identity may not align with assigned sex at birth.	7.452	9	2.188	3	73
Preservice behavior analysts can list practices to affirm the identity and inclusion of sexual minority clients and communities during all aspects of research (e.g., providing a range of demographic options in surveys).	6.968	8	1.798	1	87
Preservice behavior analysts know how to identify and address communication errors that may occur when working with clients and colleagues who identify as a sexual or gender minority.	7.677	8	2.006	2	83
Preservice behavior analysts can discuss the history of conversion therapy about sexual orientation, the harms caused by attempting to change sexual orientation, and current ethical guidelines for behavior analysts that are against conversion therapy.	7.355	8	2.09	2	71
Preservice behavior analysts can list best practices for outreach to LGBTQAI+ communities, including representation in outreach materials (i.e., brochures and websites).	5.871	6	1.979	3	50
<i>Cultural Application with Clients from Different Religious and Spiritual Backgrounds</i>					
Preservice behavior analysts understand that clients may have spiritual, religious, or secular beliefs and affiliations that might not align well with the philosophy and worldview underlying ABA practices.	7.968	9	1.923	1	87
Preservice behavior analysts will partner with clients and families when incorporating religious and spiritual beliefs in treatment goals and interventions.	7.774	9	2.077	2	87
Preservice behavior analysts can define justice, equity, diversity, and inclusion operationally.	7.742	9	2.049	2	77
Preservice behavior analysts understand the role of conversations with clients about their spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs.	7.419	7	1.911	2	80
<i>Disrupting Inequitable Systems</i>					
Preservice behavior analysts understand the behavioral approach for addressing bias and racism (e.g., behavior assessment, intervention, monitoring).	8.29	9	1.774	1	100
Preservice behavior analysts demonstrate knowledge of the underrepresentation of clients from Black, Indigenous, and other nondominant, non-White backgrounds in applied behavior analysis.	8.129	9	1.821	1	90
Preservice behavior analysts can discuss how to actively use culturally responsive practices at all levels of the organizational structure and procedures.	7.742	9	2.033	2	87
Preservice behavior analysts can discuss how to arrange environmental contingencies and meta-contingencies to shape their own behavior, and the behavior of colleagues and organizations.	7.839	9	2.002	2	87
<i>Disrupting Inequitable Systems</i>					
Preservice behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.	7.774	9	1.892	2	87

Table 5 Continued

Preservice behavior analysts actively promote a culture of accountability to the mission and vision statements of the organization using measurable goals with realistic timelines.	7.645	9	2.09	2	83
Preservice behavior analysts can list effective strategies to support and advocate for recruitment, admissions and hiring, supervision, and retention efforts in behavior analytic programs and agencies that increase visibility and representation from diverse groups and identities within the organization.	7.645	9	2.009	2	80
Preservice behavior analysts can discuss strategies to improve the diversity of organizational leadership (e.g., at least 1/3 of leadership from diverse backgrounds and identities) using strategies derived from organizational behavior management.	7.29	8	2.209	2	80
Preservice behavior analysts can discuss practices and advocacy strategies for disrupting health and education disparities affecting access to applied behavior analysis for clients from Black, Indigenous, and other nondominant, non-White backgrounds.	7.581	8	2.046	3	83
Preservice behavior analysts can list best practices for improving access to research participation for underserved populations (Black, Indigenous, People of Color, nondominant gender, sexual orientation, and religious groups, disabilities other than autism/intellectual and developmental disability).	7.161	8	2.146	3	73
Preservice behavior analysts can list effective strategies to advocate for improving the diversity of advisory boards, vendors, and collaborators of the organization.	7.129	8	2.391	3	37

Table 6

Thematic Analysis for Round One

Original Competency	Repeated Themes	Rewording Suggestion
Preservice behavior analysts are knowledgeable about the profession’s values, ethics, and standards.	Perhaps something to beyond just knowing the current Ethics Code, but also actively seeking out or being aware of changes in the field related to ethics. Knowledge about being current with the ethical code is required by the current ethical code. Consider adding the accountability of staying updated with standards of the professional organizations.	Preservice behavior analysts are knowledgeable and remain current in the ethical code, and standards of the profession published by our professional certification and licensure bodies.

Table 6 Continued

<p>Preservice behavior analysts are aware of their personal and professional limitations in working with diverse clients.</p>	<p>Preservice behavior analysts are aware of their personal and professional limitations in working with diverse clients and utilize approved resources for ensuring provision of equal and ethical services.</p>	<p>Preservice behavior analysts demonstrate understanding of the ways in which their personal and professional values and implicit bias may conflict with or accommodate the needs of diverse clients.</p>
<p>Based on their self-identified personal and professional limitations, preservice behavior analysts demonstrate when and how to make appropriate referrals to other behavior analysts or professionals with relevant experience and specialized knowledge of the client’s culture.</p>	<p>Based on their self-identified personal and professional limitations, preservice behavior analysts can identify when and how they would make appropriate referrals to other behavior analysts or professionals with relevant experience and specialized knowledge of the client’s culture.</p> <p>Seek appropriate supervision if referral is not possible.</p> <p>Ask supervision to increase scope of knowledge and address biases.</p>	<p>Based on their self-identified personal and professional limitations, preservice behavior analysts demonstrate when and how to make appropriate referrals to other behavior analysts or other professionals with relevant experience and specialized knowledge of the client’s culture or the behavior analyst seeks appropriate supervision.</p>
<p>Preservice behavior analysts demonstrate practices allowing client assent and consent (where relevant) to assessment and intervention for populations with limited language proficiency.</p>	<p>I wonder about those who may not have experience with students with limited language ability.</p>	<p>Preservice behavior analysts demonstrate practices allowing client assent and consent to assessment and intervention for all populations including individuals limited language proficiency or nonverbal individuals.</p>
<p>Preservice behavior analysts can identify ethical dilemmas that arise in collaboration with clients from nondominant cultures or cultures different than their own.</p>	<p>Consider addressing differences in cultures of families and other professionals’ behavior analysts work with from non-dominant cultures.</p> <p>What about families and other professionals?</p>	<p>Preservice behavior analysts can identify ethical dilemmas that arise in collaboration with clients, families and other professionals from nondominant cultures or cultures different than their own.</p>

Table 6 Continued

<p>Preservice behavior analysts demonstrate effective use of noncolonial strategies in applied behavior analysis, including active participation in developing treatment goals and services by clients and interested parties</p>	<p>Something to consider is that some people do not understand what noncolonial means.</p> <p>I think noncolonial needs to be described, or possibly use another word (liberate?) because decolonization unfortunately has become politicized and very loaded. I think for a competency to become widespread it needs to be as palatable as possible to the widest audience. I am not saying this isn't an important competency, it certainly is! Just perhaps a re-framing.</p> <p>Consider changing noncolonial or defining as it is not a common term.</p> <p>Colonial is vague and undefined.</p>	<p>Preservice behavior analysts demonstrate effective use of noncolonial strategies in applied behavior analysis, including active participation in developing treatment goals and services by clients and interested parties. ADDED non-colonialism is defined as avoid the imposition of American or Western ideological and values on clients from diverse backgrounds.</p>
<p>Preservice behavior analysts demonstrate the ability to construct culturally relevant intervention goals in collaboration with clients from nondominant cultures or cultures different than their own.</p>	<p>Assessment targets should be included.</p> <p>Assessment targets lead the entire process, the purpose of the assessment can be biased.</p>	<p>Preservice behavior analysts demonstrate ability to construct culturally relevant assessment targets, intervention goals, and procedures in collaboration with clients from nondominant cultures or cultures different than their own</p>
<p>Preservice behavior analysts will be attentive to diverse clients' and colleagues' values, beliefs, and fears that could affect intervention participation.</p>	<p>I think a stronger verb than "attentive to" would work here perhaps, respond or engage with.</p> <p>It it's possible maybe also add in a piece here about making accommodations for those values, beliefs, and fears.</p>	<p>Preservice behavior analysts will be attentive and accommodate diverse values, beliefs, and fears that could affect intervention participation for clients' and colleagues from different backgrounds.</p>
<p>Preservice behavior analysts demonstrate the use of instructional/intervention materials that validate and consider clients' cultural, linguistic, spiritual, racial, and gender identities.</p>	<p>Special education is missing from this.</p> <p>Abilities are also an identity.</p> <p>Need to include unpack the different components of culture.</p>	<p>Preservice behavior analysts demonstrate the use of instructional/intervention materials that validate and consider clients' cultural, linguistic, spiritual, racial, gender identities and ability status.</p>

Table 6 Continued

<p>Preservice behavior analysts use appropriate culturally sensitive methodological approaches, skills, and techniques that reflect the professionals’ understanding of the role of culture, spirituality, and gender identity in the life of the client.</p>	<p>Culturally sensitive methodological approaches should include race, SES and disability. Socioeconomic status and disability are missing from the competency.</p>	<p>Preservice behavior analysts use appropriate culturally sensitive methodological approaches, skills, and techniques that reflect the professionals’ understanding of the role of culture, spirituality, socioeconomic class, race, ethnicity, gender.</p>
<p>Preservice behavior analysts document knowledge of social determinants of health and behavior including racism and poverty.</p>	<p>What is included in social determinism? Definition of social determinism will help with clarity.</p>	<p>Preservice behavior analysts document knowledge of social determinants of health (how these social construct impact one’s health outcomes) and behavior including racism, poverty and ability status.</p>
<p>Preservice behavior analysts understand practices that can provide or advocate for the provision of information, referrals, and services in the language appropriate to the client, which may include the use of interpreters.</p>	<p>No need for the understanding practices If you advocate you already understand. Advocacy is enough.</p>	<p>Preservice behavior analysts advocate for the provision of information, referrals, and services in the language appropriate to the client, which may include the use of interpreters</p>
<p>Preservice behavior analysts understand the role of conversations with clients about their spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs.</p>	<p>Understanding needs an action verb. I think this could be clearer. I also think it could be more related to something we do in practice (indirect assessments). So instead of understanding the role of a conversation, it’s that they demonstrate how to glean information about clients’ spiritual and religious beliefs to inform practices (or something).</p>	<p>Preservice behavior analysts demonstrating how to glean information about clients’ spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs.</p>
<p>Preservice behavior analysts demonstrate self-awareness of their own personal, and cultural values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.</p>	<p>I am not sure if it is a competency to be able to appreciate something. I think it would be better if the competency was just about their ability to be self-aware. I feel like this is the most important skills to have, self-awareness should include culture, values, believes, how these interaction interplay with values.</p>	<p>Preservice behavior analysts demonstrate self-awareness of their own personal, cultural values and beliefs and the way in which cultural identifies shape values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.</p>

Table 7
Ranking of Each Competency

	Mean	Std. Deviation
<i>Ethics & Values</i>		
Preservice behavior analysts are aware of their personal and professional limitations in working with diverse clients.	4.00	2.519
Preservice behavior analysts demonstrate practices allowing client assent and consent (where relevant) to assessment and intervention for populations with limited language.	4.73	3.269
Preservice behavior analysts prioritize client outcomes and wellbeing over personal and/or professional gains.	5.57	3.839
Preservice behavior analysts demonstrate the use of client-centered practices to increase client engagement during an assessment, intervention, and progress monitoring.	6.50	3.350
Preservice behavior analysts demonstrate incorporating client voice in social validity measures (e.g., questionnaires, interviews, behavioral observation measures including assessment of client affect and indices of happiness) used in clinical practice and research.	6.53	3.550
Based on their self-identified personal and professional limitations, preservice behavior analysts demonstrate when and how to make appropriate referrals to other behavior analysts or professionals with relevant experience and specialized knowledge of the client's culture.	7.70	3.218
Preservice behavior analysts demonstrate culturally responsive ethical decision-making skills during clinical practice and research.	8.53	3.776
Preservice behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.	8.97	3.023
Preservice behavior analysts can discuss the Behavior Analyst Certification Board (BACB) ethical code and identify the gaps related to diversity, equity, justice, and inclusion that still need to be addressed.	9.30	3.196
Preservice behavior analysts demonstrate how to plan for and effectively communicate during ethical dilemmas related to differences in opinions, values, agendas, histories, etc.	9.43	3.002
Preservice behavior analysts demonstrate knowledge of community-based participatory research (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process) practices.	9.70	3.640
Preservice behavior analysts demonstrate applications of community-based participatory research (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process) practices in behavior analytic research that prevent exploitation and harm to vulnerable populations.	10.00	3.842
Preservice behavior analysts can identify ethical dilemmas that arise in collaboration with clients from nondominant cultures or cultures different than their own.	10.80	2.797
<i>Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority</i>		
Preservice behavior analysts demonstrate an understanding that people have diverse sexual orientations, gender identities, and gender expressions that intersect with other identities and contexts.	2.60	1.329
Preservice behavior analysts examine their own bias, attitudes about, and knowledge of sexual orientation, gender identity, and gender expression may impact their practices in ABA, particularly the services they provide to LGBTQAI+ clients.	2.93	2.100
Preservice behavior analysts demonstrate the use of identity-affirming practices with transgender and gender nonconforming (TGNC) clients, supervisees, and colleagues.	3.30	1.985

Table 7 Continued

Preservice behavior analysts know how to adapt interventions and use culturally responsive teaching and training strategies when working with clients and families who identify as a sexual or gender minority.	4.27	2.067
Preservice behavior analysts demonstrate understanding that gender is nonbinary with a range of gender identities and expressions and that gender identity may not align with assigned sex at birth.	5.73	2.050
Preservice behavior analysts know how to identify and address communication errors that may occur when working with clients and colleagues who identify as a sexual or gender minority.	6.03	2.282
Preservice behavior analysts can discuss the history of conversion therapy in relation to sexual orientation, the harms cause by attempting to change sexual orientation and current ethical guidelines for behavior analysts that are against conversion therapy.	6.33	2.218
Preservice behavior analysts can list practices to affirm the identity and inclusion of sexual minority clients and communities during all aspects of research (e.g., providing a range of demographic options in surveys).	6.77	2.223
Preservice behavior analysts can list best practices for outreach to LGBTQAI+ communities including representation in outreach materials (i.e., brochures and websites).	7.03	1.866
<i>Cultural Application with Clients from Different Religious and Spiritual Backgrounds</i>		
Preservice behavior analysts understand that clients may have spiritual, religious, or secular beliefs and affiliations that might not align well with the philosophy and worldview underlying ABA practices.	2.13	0.973
Preservice behavior analysts can define justice, equity, diversity, and inclusion operationally.	2.53	1.358
Preservice behavior analysts will partner with clients and families when incorporating religious and spiritual beliefs in treatment goals and interventions.	2.60	1.133
Preservice behavior analysts understand the role of conversations with clients about their spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs.	2.73	0.944
<i>Cultural Awareness and Reflective Practices</i>		
Preservice behavior analysts acknowledge and reflect on the sources of implicit and explicit bias, and practice ways to counter these biases.	2.37	1.474
Preservice behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values, and practices and demonstrate practices that minimize their imposition of these beliefs, values, and practices onto their clients.	2.67	1.269
Preservice behavior analysts demonstrate self-awareness of their own personal, and cultural values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.	2.87	1.570
Preservice behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values, and practices and demonstrate practices that minimize their imposition of these beliefs, values and practices onto their clients.	3.43	1.135
Preservice behavior analysts use appropriate culturally sensitive methodological approaches, skills, and techniques that reflect the professionals' understanding of the role of culture, spirituality, and gender identity in the life of the client.	3.53	3.288
Preservice behavior analysts acknowledge and reflect on the historical and cultural context different clients and colleagues bring to the team, particularly those systematically excluded from research and intervention.	3.67	1.269
<i>Cultural Awareness and Reflective Practices</i>		
Preservice behavior analysts demonstrate the ability to construct culturally relevant intervention goals in collaboration with clients from nondominant cultures or cultures different than their own.	5.33	3.166

Table 7 Continued

Preservice behavior analysts can identify potentially problematic items on commonly used standardized assessment tools in ABA for culturally diverse clients.	5.97	3.961
Preservice behavior analysts effectively convey assessment results to families from different cultural backgrounds.	6.10	3.791
Preservice behavior analysts demonstrate the use of instructional/intervention materials that validate and consider client’s cultural, linguistic, spiritual, racial, and gender identities.	6.37	4.279
When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst recognizes that the client’s beliefs about the variables of human behavior and learning might differ from their own.	6.73	3.423
Preservice behavior analysts demonstrate effective use of noncolonial strategies in applied behavior analysis, including active participation in developing treatment goals and services by clients and interested parties.	7.43	4.477
Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among Asian Americans, LGBTQAI+) and demonstrate cultural humility (self-reflection and self-critique whereby the individual learns about another's culture, but one starts with an examination of her/his own beliefs and cultural identities) in determining their client’s values and preferences and worldview.	7.67	4.020
The preservice behavior analyst understands that a client from a different cultural background may perceive the use of language differently and understands the role of this difference in socio-pragmatic rules in communication breakdown. Examples include requests or topics that are culturally inappropriate for one of the parties, given the context or use of personal address, bodily distance, and nonverbal communication seen as disrespectful or nonengaged by one of the parties.	9.73	3.226
Preservice behavior analysts will be attentive to diverse clients' and colleagues' values, beliefs, and fears that could affect intervention participation.	10.27	3.814
When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst can identify when misunderstandings occur due to intercultural communication breakdown.	10.57	2.991
Preservice behavior analysts are aware of potential power dynamics and information inequities that may be present when clients and colleagues are from different backgrounds and identities than their own.	11.87	4.167
Preservice behavior analysts demonstrate how to plan for and effectively communicate during situations related to differences in opinions, values, agendas, histories, etc.	11.97	4.635
Preservice behavior analysts incorporate two-way communication and feedback loops during the intervention and research activities.	12.27	5.539
Preservice behavior analyst understands the practice and role of cultural brokerage (bridging, linking, or mediating between groups or persons of differing cultural backgrounds to reduce conflict or producing change) in easing culturally based misunderstandings and improving communication when the behavior analyst is from a cultural background different from their client.	13.37	3.755
<i>Cultural Awareness and Reflective Practices</i>		
Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among Asian Americans, LGBTQAI+) and demonstrate cultural humility (self-reflection and self-critique whereby the individual learns about another's culture, but one starts with an examination of her/his own beliefs and cultural identities) in determining their client’s values and preferences and worldview.	13.40	5.096
Preservice behavior analysts demonstrate knowledge of how to extend ABA interventions to bilingual clients from different cultural backgrounds other than their own.	14.13	4.485

Table 7 Continued

Preservice behavior analysts can identify resources for educating clients, supervisees, and colleagues about inclusive behaviors towards historically marginalized communities (i.e., LGBTQAI+ communities).	16.17	3.905
Preservice behavior analysts understand when to appropriately seek cultural brokerage (bridging, linking, or mediating between groups or persons of differing cultural backgrounds to reduce conflict or produce change), professional development, or when to refer to other behavior analysts when providing ABA services to clients with different spiritual, religious, and secular beliefs and affiliations, different race, and ethnicity, different gender identity, than their own.	17.13	3.381
<i>Awareness of Other Cultures and Cultural Humility</i>		
Preservice behavior analysts demonstrate knowledge of systemic oppression of individuals with a disability, especially at the intersection of disability and race/ethnicity.	2.93	1.856
Preservice behavior analysts use authentic engagement and active listening, self-reflection practices and an approach of cultural humility when working with clients and supervisees with different cultural or sexual identities other than their own to disrupt potential power imbalances and identify shared values.	3.93	3.084
Preservice behavior analysts demonstrate knowledge about White supremacy and the structural violence of racism that Black, Indigenous, and other people of color experience in the United States.	4.20	2.524
Preservice behavior analysts demonstrate knowledge of anti-racist and anti-bias actions with various identities and cultures.	4.47	2.583
Preservice behavior analysts document knowledge of social determinants of health and behavior including racism and poverty.	5.30	2.437
Preservice behavior analysts demonstrate an understanding of acculturation (the assimilation to a different culture, typically the dominant one) processes, intergenerational dynamics, and the challenges faced by recent immigrants to a culture different than their home culture.	6.27	2.318
Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among African Americans individuals who identify as sexual and gender minorities) and demonstrate cultural humility in determining their client's values and preferences, and worldview.	6.63	2.385
Preservice behavior analysts demonstrate knowledge about the history of measurement development and how it has been historically used to harm people with disabilities and people of color (IQ, adaptive behavior, mental health).	6.63	2.297
<i>Awareness of Other Cultures and Cultural Humility</i>		
Preservice behavior analysts understand practices that can provide or advocate for the provision of information, referrals, and services in the language appropriate to the client, which may include the use of interpreters.	7.07	2.677
Preservice behavior analysts demonstrate awareness of the legal, ethical, and practical issues related to language translation and the appropriate use of interpreters in assessment and intervention for non-English-speaking clients.	7.57	2.725
<i>Disrupting Inequitable Systems</i>		
Preservice behavior analysts demonstrate knowledge of the underrepresentation of clients from Black, Indigenous, and other nondominant, non-White backgrounds in applied behavior analysis.	3.27	2.518
Preservice behavior analysts can discuss how to actively use culturally responsive practices at all levels of the organizational structure and procedures.	3.67	2.591
Preservice behavior analysts actively promote a culture of accountability to the mission and vision statements of the organization using measurable goals with realistic timelines.	4.10	2.369

Table 7 Continued

Preservice behavior analysts can discuss how to arrange environmental contingencies and meta-contingencies to shape their own behavior, and the behavior of colleagues and organizations.	4.47	2.556
Preservice behavior analysts understand the behavioral approach for addressing bias and racism (e.g., behavior assessment, intervention, monitoring).	6.17	3.640
Preservice behavior analysts can list effective strategies to support and advocate for recruitment, admissions and hiring, supervision, and retention efforts in behavior analytic programs and agencies that increase visibility and representation from diverse groups and identities within the organization.	6.63	2.484
Preservice behavior analysts can discuss strategies to improve the diversity of organizational leadership (e.g., at least 1/3 of leadership from diverse backgrounds and identities) using strategies derived from organizational behavior management.	7.40	2.343
Preservice behavior analysts can discuss practices and advocacy strategies for disrupting health and education disparities affecting access to applied behavior analysis for clients from Black, Indigenous, and other nondominant, non-White backgrounds.	7.67	2.857
Preservice behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.	7.80	3.284
Preservice behavior analysts can list effective strategies to advocate for improving the diversity of advisory boards, vendors, and collaborators of the organization.	8.30	2.380
Preservice behavior analysts understand the importance of collaborating with organizational leadership on identifying why diverse staff and clients leave the organization and reflect on ways to improve retention and growth within the organization.	8.73	3.769
Preservice behavior analysts can list best practices for improving access to research participation for underserved populations (Black, Indigenous, People of Color, nondominant gender, sexual orientation, and religious groups, disabilities other than autism/intellectual and developmental disability).	9.80	2.398

“Preservice behavior analysts understand when to appropriately seek cultural brokerage (bridging, linking, or mediating between groups or persons of differing cultural backgrounds to reduce conflict or produce change), professional development, or when to refer to other behavior analysts when providing ABA services to clients with different spiritual, religious, and secular beliefs and affiliations, different race, and ethnicity, different gender identity, than their own” (M = 17.13, SD = 3.381).

Round Two

Based on the results of Round 1, a total of 33 competencies were included in Round 2. Sixteen competencies were included to obtain consensus, and 15 competencies were included to examine their clarity. Based on the criteria of a median of 6 with an IQR of 1 or less, two competencies of the 16 competencies met consensus (see Table 9). Based on the percentage of agreement of median of 6 or higher with minimum of 80% yes rating, five additional competencies met consensus (see Table 9). Nine competencies did not reach consensus and were included in the final round (see Table 10).

Thematic Analysis. Thirteen of the 15 competencies of the reworded competencies were marked as clear (see Table 8). The feedback for the other two was consistent across responses. The item “Preservice behavior analysts demonstrating how to glean information about clients’ spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs” obtained a 70% acceptance rating, falling short of the 80% consensus criteria.

Table 8
Confirmation of The Reworded Suggestion

Rewording Suggestion	% of agreement on the clarity of the suggested rewording	Comments
Pre-service behavior analysts are knowledgeable and remain current in the ethical code, and standards of the profession published by our professional certification and licensure bodies.	100	
Pre-service behavior analysts demonstrate understanding of the ways in which their personal and professional values and implicit bias may conflict with or accommodate the needs of diverse clients.	97	
Pre-service behavior analysts demonstrate understanding of the ways in which their personal and professional values and implicit bias may conflict with or accommodate the needs of diverse clients.	95	
Based on their self-identified personal and professional limitations, pre-service behavior analysts demonstrate when and how to make appropriate referrals to other behavior analysts or other professionals with relevant experience and specialized knowledge of the client’s culture or the behavior analyst seeks appropriate supervision.	100	
Pre-service behavior analysts can identify ethical dilemmas that arise in collaboration with clients, families and other professionals from non-dominant cultures or cultures different than their own.	100	
Pre-service behavior analysts demonstrate effective use of non-colonial strategies in applied behavior analysis, including active participation in developing treatment goals and services by clients and interested parties. ADDED non colonialism is defined as avoid the imposition of American or Western ideological and values on clients from diverse backgrounds	100	
Pre-service behavior analysts demonstrate ability to construct culturally relevant assessment targets, intervention goals, and procedures in collaboration with clients from non-dominant cultures or cultures different than their own.	100	

Table 8 Continued

Pre-service behavior analysts will be attentive and accommodate diverse values, beliefs, and fears that could affect intervention participation for clients' and colleagues from different background.

98

Pre-service behavior analysts demonstrate the use of instructional/intervention materials that validate and

100

consider clients' cultural, linguistic, spiritual, racial, gender identities and ability status.

Pre-service behavior analysts use appropriate culturally sensitive methodological approaches, skills, and techniques that reflect the professionals' understanding of the role of culture, spirituality, socioeconomic class, race, ethnicity, gender

100

Pre-service behavior analysts document knowledge of social determinants of health (how these social construct impact one's health outcomes) and behavior including racism, poverty and ability status.

100

Pre-service behavior analysts advocate for the provision of information, referrals, and services in the language appropriate to the client, which may include the use of interpreters.

100

Pre-service behavior analysts demonstrating how to glean information about clients' spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs.

70

*Glean should be operationally defined

* I think the word glean might be misunderstood.

* to 'glean information' sounds like they're making assumptions, rather than collaborating with clients

* How to glean information feels like assessing or gathering, while I think conversation makes it more of a bidirectional communication opportunity.

Table 8 Continued

100

Pre-service behavior [analysts demonstrate self-awareness of their own personal, cultural values and beliefs and the way in which cultural identifies shape values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.

Table 9*Round Two Descriptive Statistics of the Suggested Competencies*

Domain	Competency Description	Mean	Median	SD	IQR	Yes/No
<i>Ethics and Values</i>						
	Preservice behavior analysts can discuss the Behavior Analyst Certification Board (BACB) ethical code and identify the gaps related to diversity, equity, justice, and inclusion that still need to be addressed.	7.00	7	20.000	1	93
	Preservice behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.	8.00	8	1.627	2	92
	Preservice behavior analysts demonstrate knowledge of community-based participatory research practices (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process)	7.00	7	10.000	2	75
<i>Cultural Awareness and Reflective Practices</i>						
	Preservice behavior analysts demonstrate self-awareness of their own personal, and cultural values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.	8.00	8	1.176	2	87
<i>Cross-Cultural Application</i>						
	Preservice behavior analysts can identify resources for educating clients, supervisees, and colleagues about inclusive behaviors towards historically marginalized communities (i.e., BIPOC, special education and LGBTQAI+ communities).	7.50	8	1.202	1	92
	When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst can identify when misunderstandings occur due to intercultural communication breakdown.	8.00	9	20.000	2	75
	Preservice behavior analysts understand when to appropriately seek cultural brokerage professional development, or when to refer to other behavior analysts when providing ABA services to clients with different spiritual, religious, and secular beliefs and affiliations, different race, and ethnicity, different gender identity, than their own. Cultural brokerage is defined as bridging, linking, or mediating between groups or persons of differing cultural backgrounds to reduce conflict or produce change.	7.78	8	1.450	2	88
<i>Cultural Application with Clients from Different Religious and Spiritual Backgrounds</i>						
	Preservice behavior analyst understands that a client from a different cultural background may perceive the use of language differently and understands the role of this difference in socio-pragmatic rules in communication breakdown. Examples include requests or topics that are culturally inappropriate for one of the parties, given the context or use of personal address, bodily distance, and nonverbal communication seen as disrespectful or nonengaged by one of the parties.	7.14	8	1.627	2	89
	Preservice behavior analysts demonstrate understanding of acculturation (the assimilation to a different culture, typically the dominant one) processes, intergenerational dynamics, and the challenges faced by recent immigrants to a culture different than their home culture.	7.63	8	1.391	2	80

Table 9 Continued

Preservice behavior analysts demonstrate knowledge about the history of measurement development and how it has been historically used to harm people with disabilities and people of color (IQ, adaptive behavior, mental health).	7.74	8	1.375	2	77
Preservice behavior analysts demonstrate knowledge of anti-racist and anti-bias actions with various identities and cultures.	7.86	8	1.325	2	75
<i>Cross-Cultural Application with Clients who Identify as a Sexual or Gender Minority</i>					
Preservice behavior analysts can discuss the history of conversion therapy about sexual orientation, the harms caused by attempting to change sexual orientation, and current ethical guidelines for behavior analysts that are against conversion therapy.	7.44	8	1.625	2	75
Preservice behavior analysts can list best practices for outreach to LGBTQAI+ communities, including representation in outreach materials (i.e., brochures and websites).	5.93	6	1.685	2	68
Preservice behavior analysts demonstrate an understanding that gender is nonbinary with a range of gender identities and expressions and that gender identity may not align with assigned sex at birth.	7.63	9	1.779	3	65
<i>Disrupting Inequitable Systems</i>					
Preservice behavior analysts can define justice, equity, diversity, and inclusion operationally.	7.89	8	1.528	2	88
Preservice behavior analysts can list effective strategies to advocate for improving the diversity of advisory boards, vendors, and collaborators of the organization.	7.19	8	2.190	3	75
Preservice behavior analysts can list best practices for improving access to research participation for underserved populations (Black, Indigenous, People of Color, nondominant gender, sexual orientation, and religious groups, disabilities other than autism/intellectual and developmental disability).	7.22	8	1.717	3	73

Round Three

Nine competencies were reevaluated for consensus based on the results of Round 2 (Table 8). Five of them earned consensus based on having an IQR of 1 or lower and an approval consensus of 80% or above. From the panelist's opinions the following competencies did not receive consensus:

1. Ethics and Values

- a. Preservice behavior analysts demonstrate knowledge of community-based participatory research practices (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process)
- b. representatives, and academic researchers in all aspects of the research process)

2. Cross-Cultural Application with Clients who Identify as a Sexual or Gender Minority

- a. Preservice behavior analysts can discuss the history of conversion therapy about sexual orientation, the harms caused by attempting to change sexual orientation, and current ethical guidelines for behavior analysts that are against conversion therapy.
- b. Preservice behavior analysts can list best practices for outreach to LGBTQAI+ communities, including representation in outreach materials (i.e., brochures and websites).

3. Disrupting Inequitable Systems

Preservice behavior analysts can list best practices for improving access to research participation for underserved populations (Black, Indigenous, People of Color, nondominant gender, sexual orientation, and religious groups, disabilities other than autism/intellectual and developmental disability).

The IQR of each domain competency was established and provided information about the dispersion of the data's central 50%. The lower the IQR, the more likely it was that the panelists

agreed on the topic. Table 10 shows a summary of the IQR for each of the seven domains aggregated according to rounds. According to the results, the domain of ethics and values had the highest level of agreement among the panelists in Round 1 (66.7%). The domain with the most IQR disagreement was disrupting inequitable systems, which had the most IQR values of 3 (33.3%). The same pattern was observed in Round 2, when the ethics and values domain had the lowest IQR, reflecting greater agreement among panelists. Based on the IQR values, the domain with the most disagreements in Round 2 were disrupting inequitable systems. The IQR values for each competency in Rounds 1–3 are compiled and reported in Tables 5,9 and 10.

Table 10*Round Three Descriptive Statistics of the Suggested Competencies*

Domain	Competency Description	Mean	Median	SD	IQR	Yes/No
<i>Ethics and Values</i>						
	Preservice behavior analysts demonstrate knowledge of community-based participatory research practices (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process)	7.04	7	1.319	2	75
<i>Cross-Cultural Application</i>						
	When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst can identify when misunderstandings occur due to intercultural communication breakdown.	7.79	8	1.166	2	96
<i>Awareness of Other Cultures and Cultural Humility</i>						
	Preservice behavior analysts demonstrate knowledge of anti-racist and anti-bias actions with various identities and cultures.	7.46	7.5	1.170	1	81
	Preservice behavior analysts demonstrate knowledge about the history of measurement development and how it has been historically used to harm people with disabilities and people of color (IQ, adaptive behavior, mental health).	7.25	7	1.076	1	86
<i>Cross-Cultural Application with Clients who Identify as a Sexual or Gender Minority</i>						
	Preservice behavior analysts demonstrate an understanding that gender is nonbinary with a range of gender identities and expressions and that gender identity may not align with assigned sex at birth.	7.25	7	1.175	1	81
	Preservice behavior analysts can discuss the history of conversion therapy about sexual orientation, the harms caused by attempting to change sexual orientation, and current ethical guidelines for behavior analysts that are against conversion therapy.	7.32	8	1.389	2	64
	Preservice behavior analysts can list best practices for outreach to LGBTQAI+ communities, including representation in outreach materials (i.e., brochures and websites).	6.14	6	1.297	2	39
<i>Disrupting Inequitable Systems</i>						
	Preservice behavior analysts can list effective strategies to advocate for improving the diversity of advisory boards, vendors, and collaborators of the organization.	6.79	7	1.175	1	82
	Preservice behavior analysts can list best practices for improving access to research participation for underserved populations (Black, Indigenous, People of Color, nondominant gender, sexual orientation, and religious groups, disabilities other than autism/intellectual and developmental disability).	7.29	7	1.182	3	75

Table 11*IQR for the Domains Across Rounds One, Two and Three*

Domains	Inter-Quartile Range (IQR)			
	0	1	2	3
Round 1				
Cross-Cultural application	0 (0.0)	7 (29.2)	10 (27.8)	2 (22.2)
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority	0 (0.0)	3 (12.5)	4 (11.1)	2 (22.2)
Cultural Application with Clients from Different Religious and Spiritual Backgrounds	0 (0.0)	1 (4.2)	3 (8.3)	0 (0.0)
Cultural Awareness and Reflective Practices	0 (0.0)	1 (4.2)	3 (8.3)	1 (11.1)
Disrupting Inequitable Systems	0 (0.0)	2 (8.3)	6 (16.7)	3 (33.3)
Ethics and values	2 (66.7)	8 (33.3)	3 (8.3)	1 (11.1)
Round 2				
Cross-Cultural application	0	1 (50.0)	2 (16.7)	0 (0.0)
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority	0	0 (0.0)	2 (16.7)	1 (33.3)
Cultural Application with Clients from Different Religious and Spiritual Backgrounds	0	0 (0.0)	4 (33.3)	0 (0.0)
Cultural Awareness and Reflective Practices	0	0 (0.0)	1 (8.3)	0 (0.0)
Disrupting Inequitable Systems	0	0 (0.0)	1 (8.3)	2 (66.7)
Ethics and values	0	1 (50.0)	2 (16.7)	0 (0.0)
Round 3				
Awareness of Other Cultures and Cultural Humility	0	2 (50.0)	0 (0.0)	0 (0.0)
Cross-Cultural application	0	0 (0.0)	1 (25.0)	0 (0.0)
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority	0	1 (25.0)	2 (50.0)	0 (0.0)
Disrupting Inequitable Systems	0	1 (25.0)	0 (0.0)	1 (100.0)
Ethics and values	0	0 (0.0)	1 (25.0)	0 (0.0)

In addition to the Likert-scale questions, participants were asked about inclusion of competencies to the curriculum, which was expressed by a binary yes or no response. This was calculated as a percentage, and Table 11 shows a summary of how the panelists answered in each of the domains aggregated to the rounds. The proportions were divided into two groups: those above 80% and those below 80%. Cross-cultural application (26.4%) had the highest rate of above 80% agreement in Round 1, followed by ethics and values (18.9%). Round 2 yielded mixed findings, with approval and objections somewhat evenly distributed throughout the domains.

Table 12

Analysis of Inclusion of Competency Using Binary Responses for the Domains

Domains	80% and Above	Less than 80%
Round 1		
Cross-Cultural application	14 (26.4%)	5 (26.3%)
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority	6 (11.3%)	3 (15.8%)
Cultural Application with Clients from Different Religious and Spiritual Backgrounds	3 (5.7%)	1 (5.3%)
Cultural Awareness and Reflective Practices	4 (7.5%)	1 (5.3%)
Disrupting Inequitable Systems	9 (17.0%)	2 (10.5%)
Ethics and Values	10 (18.9%)	4 (21.1%)
Round 2		
Cross-Cultural application	2 (25.0%)	1 (11.1%)
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority	0 (0.0%)	3 (33.3%)
Cultural Application with Clients from Different Religious and Spiritual Backgrounds	2 (25.0%)	2 (22.2%)

Table 12 Continued

Cultural Awareness and Reflective Practices	1 (12.5%)	0 (0.0%)
Disrupting Inequitable Systems	1 (12.5%)	2 (22.2%)
Ethics and Values	2 (25.0%)	1 (11.1%)
Round 3		
Awareness of Other Cultures and Cultural Humility	2 (40.0%)	0 (0.0%)
Cross- Cultural application	1 (20.0%)	0 (0.0%)
Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority	1 (20.0%)	2 (50.0%)
Disrupting Inequitable Systems	1 (20.0%)	1 (25.0%)
Ethics and Values	0 (0.0%)	1 (25.0%)

Thematic Analysis. The open-ended questions at the end of every section were analyzed using thematic analysis, which revealed fresh themes that inspired the creation of further new competencies for the following round. Tables 5 and 9 revealed the results of the theme analysis for Rounds 1 and 2, respectively. In Round 1, 14 competencies received comments on their wording, which required the competencies to be reworded and so wording adjustments were made to be evaluated in Round 2. Table 5 summarizes the 14 reworded competencies. When these 14 competencies were given for evaluation in Round 2, 10 (71.4%) obtained 100% approval, with the remaining four competencies earning greater than 95% approval, with the exception of one that received 70% approval (Table 8).

Summary

The principal investigator of this study sought panelist consensus on a comprehensive checklist of DEJI competencies that could be used in future curricular revision and development in master's degree programs in ABA to ensure adequate preparation of behavior analysts and to contribute to the development of meaningful instructional materials. With a panel of practicing

BCBAs, the researcher was able to reach consensus on the majority of competencies included in this study, with the exception of four competencies that did not receive consensus at the end of the three rounds.

CHAPTER IV: DISCUSSION

There is an ongoing disparity between the changing demographics of an increasingly multicultural society and the mostly White BCBA workforce, which presents a clear need to actively address the implication of such a gap. The field of ABA recognizes the necessity for comprehensive training on multiculturalism and culturally relevant practices to address this discrepancy (Beaulieu et al., 2019; Beaulieu & Jimenez-Gomez, 2022; Conners et al., 2019). There is a scarcity of literature and empirical research in ABA that identifies and defines DEJI competencies for behavior analysts. The lack of professional guidance on scope and sequence for DEJI poses a systematic challenge for ABA training programs to effectively undertake these issues.

In response to the murders of Black individuals by police officers in spring 2020, the Association for Behavior Analysis International (ABAI, 2020) issued a statement expressing their commitment to equity and pledged to enhance their efforts in diversity, equity, and inclusion:

Commitment to Equity, 2020. We join with voices across the country and world in expressing our outrage over the numerous acts of racial violence that have happened recently in the US, including the murders of George Floyd, Breonna Taylor, and Ahmaud Arbery, among many others. We also recognize importantly that these acts are not unique to the US—racial violence and inequity happen all over the world and are most certainly not recent phenomena.

There is a great need for change in our society and our world and we feel it is important to start with home--our collective home of the Association for Behavior Analysis International. We are committed to creating a more nurturing and welcoming environment for all of our members. We have a great deal of work in front of us, but we

wanted to announce (and re-announce) some of the things that are happening now within the organization:

Last fall, the ABAI Council appointed a board for Diversity, Equity, and Inclusion (DEI) whose charge is to support efforts to foster a climate of diversity, equity, and inclusion in behavior analysis and ABAI. The committee is comprised of some of ABAI's strongest, most talented forces for good.... The DEI Board already has established programs to promote DEI for the ABAI community through an ABAI scholarship via a paper competition on DEI and an award for achievement in innovations in DEI. More on these opportunities will be disseminated as the DEI Board arranges the details. (ABAI, 2020, para. 1–3)

Nonetheless, the statement lacked specific measurable actions. The aftermath of the brutal murders in 2020 enhanced the social justice movement across the United States, and there has been a surge in published literature within ABA addressing systemic racism and the imperative for active disruption (Matsuda et al., 2020). For example, the journal *Behavior Analysis in Practice* (BAP) published a special issue in 2022 entitled “Leading the Charge: A Look Inside the Behavior Analysis in Practice Emergency Series of Publications on Systemic Racism and Police Brutality” (Gingles et al., 2022). In this issue, ABA scholars underscored the importance of individual accountability in sustaining anti-racist actions as White behavior analysts (Machalicek et al., 2021), advancing the field towards antiracism (Matsuda et al., 2020), comprehending racism through the lens of ABA (Morris et al., 2021), aligning ABA with social justice frameworks (Pritchett et al., 2021), and implementing restorative practices within the field (Pavlicic et al., 2021). In addition, Catrone et al. (2022) advanced a detailed and novel model examining the intersection of disability and race in ABA practices, the first paper that

brings to the fore front the literature of disability and critical race theory and examined how they can be translated to ABA practices. While there is a notable trend in raising awareness documented through ABA peer-reviewed publications, the challenge remains to translate these conceptual ideas into tangible practices for training future behavior analysts. The need to translate conceptual ideas to tangible practices emphasizes the ongoing need to bridge the gap between the demographics of BCBAs, the history of the field, and the diverse needs of individuals receiving ABA services, as well as the critical importance of addressing DEJI competencies within ABA training programs (Catrone et al., 2022; Donovan et al., 2022; Levy et al., 2021). The competencies suggested in this study could be an initial step addressing the current gaps. The competencies that were validated in this study provide the opportunity to train professionals to improve access for services for clients and families from all populations. If embedded systematically these competencies can facilitate future practitioners to identify explicit and implicit tenets of White Supremacy in professional settings and to confront racism when its presented.

An initial step in exploring a topic with limited research is to establish content validity by obtaining consensus among experts in the field (Boulkedid et al., 2011; Jiménez-Rodríguez et al., 2020; Keeney et al., 2011). The principal investigators of the current study aimed to provide the field with a list of DEJI competencies by obtaining consensus from ABA experts (in this study, experts were defined as practicing BCBAs) regarding which competencies they considered important to include in ABA master's level preservice university training programs. Additionally, the principal investigators sought to establish agreement on which DEJI competencies practicing BCBAs deemed necessary for inclusion in the final list (Izaryk & Skarakis-Doyle, 2017; Strear et al., 2018).

The current modified Delphi study involved a unique group of practicing BCBAAs with diverse professional and personal backgrounds who were selectively recruited through state ABAI affiliated chapters, university ABA graduate program directors, and snowball sampling. Experts were defined as 28 BCBAAs at the master's level. Collectively the BCBAAs held between 3 to 15 years of professional experience, and their collective expertise encompassed intellectual and developmental disability, autism, and emotional behavioral disorders.

The final sample of BCBAAs that participated in all three rounds of the survey was almost double the recommended number of experts to complete the Delphi survey (Akins et al., 2005; Makhmutov, 2021). Notably, one half of the BCBAAs identified as BIPOC—a significant deviation from the 70% of practitioners who identified as White in the BACB's 2023 survey of practicing BCBAAs. In addition, six of the nine BCBAAs reported to have engaged in DEJI work, with a combined experience across the six BCBAAs of 19 years. The composition of the panel, which included a significant proportion of BIPOC experts, provides valuable insight into challenging current assumptions and promoting social justice in the field of ABA. Input from practitioners with lived experiences of systemic oppression is crucial to ensure the comprehensiveness of DEJI competencies and their ability to address the specific needs of individuals from marginalized communities (Burney et al., 2023; Čolić et al., 2021).

The modified Delphi method (Strear et al., 2018) employed in this study allowed the panelist BCBAAs to provide ratings and input on the suggested list of competencies without requiring them to first participate in interviews or focus groups, which could have been burdensome for busy professionals (Skroumpelos et al., 2013). The goal of this modified Delphi study was to validate the generated professional standards or practices (Strear et al., 2018). The results of the present study indicate that the initial list of competencies reached broad consensus

among the participants, with 78% of the competencies achieving consensus in the first round. Overall, the modified Delphi method proved to be a useful tool in obtaining expert consensus and validating professional standards or practices.

The assumption guiding this study was validated in that the majority of the suggested competencies 89% of the competencies for preservice behavior analyst training were considered valuable by the experts. This assumption was based on the limited translation of the conceptual and empirical literature, indicating a need for empirical validation (Dennis, 2021). The principal investigators of this study gathered responses from a group of 28 BCBAAs, and the results indicated a shared agreement among them regarding the significance of the proposed DEJI competencies in preservice behavior analyst training. In the following sections, the agreement results of each category will be discussed.

Ethics and Values

The modified Delphi study results indicated that practicing BCBAAs reached a consensus on the importance of competencies related to ethics and values. The panelists agreed on the need to actively examine individuals' biases as an ethical competency (Castro-Hostetler et al., 2021; Čolić et al., 2021; Dennison et al., 2019; Deochand & Costello, 2022; Fong et al., 2017; Miller et al., 2019). In the final third round of the study, they reached a high level of agreement (93%) on the competencies related to this category. The findings of this study support the idea that ethical codes alone cannot predict all potential interactions (Arango & Lustig, 2023; Kelly et al., 2021). Instead, the BCBAAs emphasized the importance of a decision-making process that includes collaboration with clients and stakeholders. This collaboration ensures the inclusion of clients' assent, voices, and input, leading to culturally relevant services (Brodhead, 2019; Miller et al., 2019; Rosenberg & Schwartz, 2019). Further, the BCBAAs highlighted the need to proactively identify ethical dilemmas that may arise when working with clients from different cultures and

identities. They stressed the importance of following ethical guidelines to effectively manage such situations (Castro-Hostetler et al., 2021; Čolić et al., 2021; Dennison et al., 2019; Fong et al., 2017). This agreement among the BCBAAs reinforces the notion that effective communication is a crucial component in addressing ethical dilemmas (Rohrer et al., 2021; Taylor et al., 2019).

Arango and Lustig (2023) argued that culture and cultural knowledge and responsiveness are the essence of all ethical considerations. These authors considered the current limitations of the BACB ethical code, arguing that the ethical code is too narrow in its scope and that the field should focus on teaching skills such as cultural humility and responsiveness that can better facilitate ethical consideration of complex interaction. The authors examined what they labeled as ignorance that can emerge from a narrow focus on issues such as DEJI, suggesting that if a behavior analyst follows the ethical code without critical thinking they may as a result ignore important aspects of cultural diversity and hinder the services they provide (Sullivan-Kirby, 2019). They emphasize the responsibility of behavior analysts to learn about the different layers of ignorance and educate themselves accordingly. The competencies included in this category focused on these critical skills that center cultural consideration and individual accountability. The results of this category support the need for training programs prioritizing ethics and values competencies in their curricula. This emphasis on ethics and values will ensure that behavior analysts are well-prepared to provide ethical and culturally responsive services to their clients. In this section of the survey, the only competency that failed to reach consensus was “Preservice behavior analysts demonstrate knowledge of community-based participatory research practices (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process).” Although the BCBAAs suggesting removal of this competency did not provide comment on their rationale for removal,

demonstrating knowledge can be expressed by the application of these practices, which is included in another competency that did reach consensus: “Preservice behavior analysts demonstrate applications of community-based participatory research (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process) practices in behavior analytic research that prevent exploitation and harm to vulnerable populations.”

Cultural Awareness and Reflective Practices

The consensus among the BCBAAs completing this study regarding competencies related to cultural awareness and reflective practices when working with individuals from different cultural identities is an important finding. The agreement on the competencies in this category reached 100% by BCBAAs in the second survey round further strengthens the support for these competencies as essential for effective practice. Panelists’ agreement emphasizes the need for preservice behavior analysts to undergo training that focuses on their own identity, values, and beliefs to mitigate biases (Donovan et al., 2022; Fitzgerald, 2020). The results of this study suggest that this type of training is perceived as helpful to preservice behavior analysts to raise aware of their own cultural values and how these values can influence their perceptions, the contingencies they establish, and the delivery of their services (Deochand & Costello, 2022; Kolb et al., 2022). By engaging in self-assessment, behavior analysts can systematically evaluate their cultural values and gain a better understanding of how these values may impact their work (Cirincione-Ulezi, 2020; Fong & Tanaka, 2013; Fong et al., 2022; Konrad & De Souza, 2021; Wright, 2019). The results of this study support the need for a process of self-assessment that allows preservice behavior analysts to recognize and address their potential biases. It promotes self-awareness, bias recognition, and cultural sensitivity and responsivity, all of which are important in providing effective services in ABA. By training those targets minimizing personal

influence and assisting behavior analysts to gain awareness of their own biases, university training programs can assist future behavior analysts in designing culturally sensitive and responsive interventions (Beaulieu & Jimenez-Gomez, 2022; Fong et al., 2016; Levy et al., 2021).

The absolute agreement on the competencies suggested in this category highlights the significance of self-awareness, bias recognition, and cultural sensitivity. They underscored the importance of preservice behavior analysts to critically examine their own cultural values and their potential impact on their work (Arango & Lustig, 2023; Dennison et al., 2019; Miller et al., 2019). By engaging in self-assessment, preservice behavior analysts can continuously evaluate and address their biases, ultimately enhancing the quality of their services. The agreement among BCBAAs on the need for preservice behavior analysts to self-conduct self-assessment aligns with the growing recognition of the importance of cultural competence in the field (Gatzunis et al., 2022). By evaluating their cultural values and their implications, preservice behavior analysts can actively work towards providing culturally relevant services (Alai-Rosales et al., 2022; Bermudez & Rios, 2020)

In summary, the consensus among BCBAAs on this category supports the inclusion of competencies related to cultural awareness and reflective practices in the training of preservice behavior analysts. Engaging in self-assessment allows behavior analysts to evaluate their cultural values and biases, fostering self-awareness, bias recognition, and cultural sensitivity. These competencies are crucial for effective practice in behavior analysis, as they promote culturally responsive interventions and help behavior analysts provide services that are respectful and tailored to the needs of individuals from diverse cultural backgrounds (Beaulieu & Jimenez-Gomez, 2022; Konrad & De Souza, 2021).

Awareness of Other Cultures and Cultural Humility

The results of the current study support the need to train preservice behavior analysts to obtain knowledge of others on the quest of becoming culturally humbled. The BCBAAs in this study agreed that preservice behavior analysts need to possess knowledge about White supremacy and understand racism and systemic oppression. This includes recognizing the historical and ongoing systems of power, privilege, and discrimination that disproportionately affect BIPOC people in the United States (Catrone et al., 2022; Donovan et al., 2022; Levy et al., 2021). By understanding these dynamics, behavior analysts can better comprehend the complex influences of racism on individuals' behaviors, experiences, and access to resources, facilitating the development of culturally sensitive interventions that address these systemic inequities (Deochand & Costello, 2022; Fitzgerald, 2020; Fong, 2020).

Further, the absolute consensus of 100% between BCBAAs emphasizes the need for preservice behavior analysts to become familiar with the systemic oppression faced by individuals from marginalized groups in particular individuals at the intersection of multiple oppressive factors. This includes recognizing that individuals with disabilities often experience additional marginalization and discrimination when their disability intersects with their race/ethnicity (Catrone et al., 2022; Goodwyn, 2021; Henry et al., 2021). By understanding these intersecting forms of oppression, preservice behavior analysts can work to address the unique challenges faced by individuals with disabilities from diverse racial and ethnic backgrounds, ensuring that interventions are sensitive to their specific needs and experiences (Catrone et al., 2022; Goodwyn, 2021; Jaramillo & Nohelty, 2021; Kornack, LeBlanc et al., 2020).

The BCBAAs' consensus indicates that preservice behavior analysts should have knowledge of the social determinants of health and behavior, which are the social, economic, and environmental factors that significantly impact individuals' well-being and behavior (Hugh-

Pennie et al., 2021; Singer, 2012). This includes an understanding of the detrimental effects of racism and poverty on individuals' health and behavior outcomes. By recognizing and addressing these social determinants, preservice behavior analysts can consider the broader context in which individuals live and develop interventions that promote positive change while addressing the systemic barriers that individuals may face (Syed et al., 2023).

Being trained to meet these competencies is expected to equip preservice behavior analysts with the knowledge necessary to provide effective, culturally humble, sensitive, and inclusive services to individuals from diverse backgrounds (Danso, 2018; Kolb et al., 2022). By acknowledging the impacts of White supremacy, systemic oppression, and social determinants of health and behavior, preservice behavior analysts can work towards dismantling barriers and promoting equity in their practice.

Cultural humility in ABA is an emerging area of interest that focuses on moving away from the notion of cultural competence to a commitment to lifelong learning when working with individuals from diverse cultures and backgrounds (Beaulieu & Jimenez-Gomez, 2022; Tervalon & Murray-García, 1998; Wright, 2019). It involves recognizing the limitations of one's own cultural perspective and actively seeking to understand and learn from others (Foronda, 2020; Treviño et al., 2017). The current study results support the growing recognition of its importance in the field and provide competencies that can lead the way to train preservice BCBAAs. Panelists' consensus emphasize the significance of these competencies for preservice behavior analysts as they acquire knowledge about cultural humility and target their skills to working with individuals from diverse cultural backgrounds. Cultural humility refers to the recognition of the limitations of one's own cultural knowledge and the willingness to learn from individuals with different cultural backgrounds (Vande Kemp & Hu, 2019). The results of this study support the

emerging literature that suggests that by practicing cultural humility, professionals can approach their work with a sense of openness and respect for cultural differences (Arango & Lustig, 2023; Beaulieu & Jimenez-Gomez, 2022; Foronda, 2020; Wright, 2019). Furthermore, the training for preservice behavior analysts is expected to teach these professionals to understand their own cultural perspective, but it may not fully encompass the experiences and needs of individuals from diverse backgrounds. Instead, they actively seek to learn from and collaborate with individuals from different cultures, recognizing their expertise and valuing their unique perspectives.

Cultural humility allows for cultural responsiveness, and it involves tailoring interventions and approaches to meet the specific needs and cultural values of the individual and their community (Fong, 2020; Vande Kemp & Hu, 2019). The unanimous agreement of the BCBA's participating in this study suggests that training preservice behavior analysts can ensure that their interventions are effective and meaningful for individuals from diverse cultural backgrounds. It involves incorporating cultural considerations into assessment, treatment planning, and implementation of interventions. This approach promotes inclusivity and helps to address potential barriers that may arise due to cultural differences.

In summary, cultural knowledge of others and cultural humility were deemed by the participating BCBA's to be essential competencies for preservice professionals that will be working with diverse populations. These competencies involve acknowledging the limits of one's own cultural knowledge, being open to learning from others, and tailoring interventions to meet the specific needs and cultural values of individuals and their communities. By incorporating cultural considerations into practice, behavior analysts can promote inclusivity and improve outcomes for individuals from diverse cultural backgrounds (Kolb et al., 2022).

Cross-Cultural Application

Cross-cultural application refers to the capacity to apply culturally sensitive methods and approaches that reflect an understanding of a specific culture (Beaulieu & Jimenez-Gomez, 2022; Dennison et al., 2019; Miller et al., 2019). The findings of the present study reinforce the importance of equipping preservice behavior analysts with cross-cultural application skills, highlighting the understanding that no two cultures are identical (Fong & Tanaka, 2013; Gatzunis et al., 2022). Experts in this field widely agreed on the significance of recognizing and taking into account the distinct cultural aspects and values of individuals from diverse backgrounds. This consensus strongly emphasizes the importance of preservice behavior analysts adapting their interventions in a way that is respectful, inclusive, and responsive to the specific needs of diverse populations. The participants of this study proposed that preservice behavior analysts demonstrate a comprehensive understanding of cultural sensitivity and its application in their practices. Accordingly, panelists agreed that preservice behavior analysts should be trained to possess knowledge of the impact of culture, spirituality, and gender identity on clients' lives, as well as to utilize appropriate methodologies and techniques that reflect this understanding. The agreement among panelists reveals the need for preservice behavior analysts to adept at identifying potential issues in standardized assessment tools when working with culturally diverse clients, ensuring that the assessment process is sensitive and unbiased. Competencies in this category promote the expectation that preservice behavior analysts actively involve clients and interested parties in the development of treatment goals, employing noncolonial strategies to foster collaboration and empower clients in decision-making (Pritchett et al., 2021). In their practice, preservice behavior analysts actively involve clients and relevant stakeholders in the development of treatment goals. The consensus reached in this study emphasizes the need for

preservice behavior analysts to employ noncolonial strategies that promote collaboration, respect, and empowerment, enabling active participation in the decision-making process.

Specifically, the consensus among BCBA's highlights the need to focus training for preservice behavior analysts on cross-cultural applications with clients and their families of different racial and ethnic backgrounds. The competencies under this category focus on avoiding overgeneralization, actively recruiting diverse populations, and tailoring interventions to meet the unique needs of clients from diverse different racial and ethnic backgrounds. The agreement among BCBA's suggests that it should be expected that training for preservice behavior analysts to address the current gap and explicitly train on systemic barriers and strive for equitable access to services for all individuals.

Panelist consensus reached 100% for the category of cross-cultural application with clients from different religious and spiritual backgrounds. This broad agreement suggests that preservice behavior analysts should be knowledgeable about how culture, spirituality, and gender identity can significantly impact clients' lives. With this understanding, the training of preservice behavior analysts should utilize appropriate methodologies and techniques that align with the religious and spiritual background of their clients. This requires behavior analysts that are skilled at recognizing potential issues in standardized assessment tools when working with culturally diverse clients. They ensure that the assessment process is conducted in a sensitive and unbiased manner, considering the unique cultural factors that may influence clients' behaviors and responses. The results of this study show that BCBA's agree on the need to train preservice behavior analysts to conduct effective communication and adaptation, and that preservice behavior analysts can promote a culturally sensitive and responsive approach within the field of behavior analysis.

With training that focuses on cross-cultural applications, BCBAs' consensus points to the current gap in training preservice behavior analysts. Hence, preservice behavior analysts should be equipped with the essential skills to ensure effective communication with clients from diverse linguistic backgrounds. They should be trained to understand the significance of providing information and services in the language that the client understands, utilizing interpreters when necessary. Furthermore, consensus among the BCBAs in this study demonstrates the need for preservice behavior analysts to possess the ability to select culturally and linguistically appropriate assessments and screeners for clients who come from diverse cultural and linguistic backgrounds. Additionally, preservice behavior analysts should demonstrate proficiency in extending ABA interventions to bilingual clients, addressing any communication errors that may arise when working with individuals who speak nondominant languages. Training should include aspects of legal, ethical, and practical considerations surrounding language translation and the appropriate use of interpreters when conducting assessments and interventions for clients who do not speak English as their primary language.

While some competencies reached lower consensus compared to the rest, 75% of competencies did reach consensus, showing overall agreement that these should be targeted in training programs for preservice behavior analysts. The results of the current study confirm the need to target competencies in providing identity-affirming practices for transgender and gender nonconforming clients, supervisees, and colleagues (Morris et al., 2021). In addition, it is important that preservice behavior analysts recognize the intersectionality of diverse sexual orientations, gender identities, and gender expressions within broader contexts. Similar to other categories, BCBAs agreed that there is a need that preservice behavior analysts possess knowledge about the history and harms of conversion therapy related to sexual orientation, as

well as the guidelines that prohibit such practices in behavior analysis. They critically examine their own biases, attitudes, and understanding of sexual orientation, gender identity, and gender expression, ensuring that their practices in ABA are inclusive and supportive of LGBTQAI+ clients. They understand that gender is nonbinary, encompassing a range of identities and expressions that may not align with assigned sex at birth. These analysts are able to adapt interventions and employ culturally responsive teaching and training strategies when working with clients and families who identify as a sexual or gender minority. They are skilled in identifying and addressing potential communication errors that may arise in their interactions with sexual and gender minority clients and colleagues. Finally, they are knowledgeable about practices that affirm the identity and inclusion of sexual minority clients and communities throughout all aspects of research, such as providing diverse demographic options in surveys.

Disrupting Inequitable Systems

With a consensus of about 90% of the competencies under the category of activism and disrupting inequitable systems, the results of this modified Delphi study confirm the callings of scholars in ABA to take on an active role of disruptors of inequitable systems (Catrone et al., 2022; Deochand & Costello, 2022; Goodwyn, 2022; Levy et al., 2021; Matsuda et al., 2020; Ortiz et al., 2022). Competencies in this category call for preservice behavior analysts to exhibit a strong awareness of the underrepresentation of clients from marginalized backgrounds in the field of ABA (Beaulieu & Jimenez-Gomez, 2022; Catrone et al., 2022; Levy et al., 2021; Pritchett et al., 2021). The consensus among the BCBA's represents the need for preservice behavior analysts to actively promote diversity and inclusivity by implementing culturally responsive practices throughout the organizational structure (Deochand & Costello, 2022; Donovan et al., 2022; Goodwyn, 2021). Consequently, the results confirm the need for preservice behavior analysts to prioritize accountability to the organization's mission and vision,

establishing measurable goals and realistic timelines to drive positive change. Consensus among the BCBA's affirms that preservice behavior analysts possess the knowledge and skills to shape behavior within themselves, colleagues, and the organization through environmental contingencies and meta-contingencies (Beaulieu & Jimenez-Gomez, 2022; Levy et al., 202; Miller et al., 2019; Pritchett et al., 2021). Moreover, preservice behavior analysts can be expected depending on training to advocate for improved recruitment, admissions, hiring, supervision, and retention efforts that enhance visibility and representation from diverse groups (Beene, 2019; Deochand & Costello, 2022). This includes the ability of preservice behavior analysts to engage in discussions and strategies to address health and education disparities and effectively combat bias and racism using behavior assessment, intervention, and monitoring techniques (Catrone et al., 2022; Singer, 2012). Collaboration with organizational leadership is seen as crucial in identifying retention challenges and fostering a supportive environment for diverse staff and clients.

Limitations

It is important to note the limitations of this study. The modified Delphi method has inherent limitations (Makhmutov, 2021). The purposeful sampling technique can introduce biases unique to the population sampled; however, the final sample for this study presents unique demographic composition that enhances the validity of the finding. Another common limitation concerns the wording of the questions that may impact participants responses. This aspect was controlled by the large sample (almost twice the threshold of 15 BCBA's) and by determining consensus based on the rating of importance of each competency (Makhmutov, 2021).

Recruitment and Attrition

While the proposed aim for recruitment was 50 BCBA's out of the 592 initial responses, only 30 completed the first round. This can be explained by the response effort required for

completion requiring approximately 60 minutes for completion. Although compensation was offered, it was small compared to the time commitment. The attrition rate from the first to the final round was considerably low (7%), with only two BCBA's who did not complete the following rounds. These findings contrast with the expected attrition rate of 70% each round (Keeney et al., 2011).

Experimental Design

A modified Delphi study omits the initial phase of conducting interviews or focus groups to generate the competencies for the following rounds. This may present a challenge in that the generated list may not be completed. The initial competency list provided to the BCBA's in this study was comprehensive, covering seven dimensions of DEJI with a total of 72 competencies. In addition, the surveys included open-ended questions that allowed for BCBA's' unique input. The results of this study identified a total of two new competencies suggested by the BCBA's. This considerably low number of new generated competencies can be attributed to the comprehensiveness of the suggested list, thereby preemptively including the content the BCBA's expected to be included in the survey. Future research can conduct focus groups and or interviews to corroborate this finding.

Ranking of Competencies

The ranking of competencies at the end of each category suggests no distinguishable differences in the ranking. This may indicate that BCBA's deem all of the competencies as equally important. This finding, however, requires further examination. Given that program directors may find it challenging to incorporate all the competencies that reached consensus, a ranking analysis could be helpful for decision-making. One such analysis could be the Q sorting methods.

Q sorting, also known as Q methodology, is a research technique used to systematically assess and analyze subjective viewpoints or opinions of individuals. It combines qualitative and quantitative approaches to understand the subjective perspectives of participants on a particular topic or issue. Q sorting is often used in social sciences, psychology, market research, and other fields where understanding subjective viewpoints and opinions is crucial. Thus, this approach might prove useful in future research to explore BCBA rationale for importance of DEJI competencies. It enables researchers to explore the diversity of perspectives within a group, identify common themes, and gain a nuanced understanding of the subjective landscape surrounding a particular topic (Herrington & Coogan, 2011; Watts & Stenner, 2012).

In Q sorting, participants are presented with a set of statements, often referred to as Q statements or Q samples, which represent a range of opinions or viewpoints on a specific subject. The participants then sort these statements into a predetermined distribution or ranking grid according to their personal agreement or disagreement with each statement. The sorting is typically done on a forced-choice basis, where participants assign a predetermined number of statements to each category within the grid, such as “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree.” The sorting process allows individuals to express their subjective views while also imposing structure through the grid (Lundberg et al., 2020).

Once participants complete the sorting task, their individual Q sorts are collected and analyzed using statistical techniques, such as factor analysis. This analysis helps identify patterns or clusters of viewpoints among the participants, highlighting the similarities and differences in their perspectives. It provides insights into the underlying dimensions or factors that shape people's opinions on the subject (Lundberg et al., 2020).

Receiver Operating Characteristic

The Receiver Operating Characteristic (ROC) is a graphical depiction of the performance of a binary classification model that shows the trade-off between the true positive rate (TPR) and the false positive rate (FPR) at different classification thresholds (Hajian-Tilaki, 2013). The ROC curve is formed by plotting the TPR versus the FPR while the classification threshold is changed. Each point on the curve represents a particular threshold setting, and the curve offers a thorough perspective of the model's performance over a wide variety of operating points. ROC analysis is most commonly employed in binary classification tasks, where the goal is to categorize examples into one of two groups.

The ROC was not used in this study for two reasons: insufficient sample size and unbalanced data. There may not be sufficient instances in a small dataset to properly estimate the TPR and FPR required to create a meaningful ROC curve. To effectively measure the model's performance, ROC analysis requires a sufficient number of positive and negative cases. In limited sample sizes, the calculated TPR and FPR may be subject to high variability and random fluctuations, resulting in less accurate conclusions (Halligan et al., 2015). This heterogeneity might make drawing meaningful inferences from the ROC curve or comparing the performance of different models challenging. ROC analysis assumes a balanced dataset with nearly equal numbers of positive and negative examples. The ROC curve may not effectively represent the model's performance if the dataset is severely imbalanced, with a considerable differential in the number of positive and negative examples (Song et al., 2014). In the instance of the current study, the researcher used the median and IQR, which addressed the issue of variability caused by a small sample size as well as imbalanced data, resulting in a skewed distribution.

Implications for Preservice Behavior Analyst Training

The results from this study can inform curricula development for ABA preservice programs. Program directors can examine how to embed the competencies included in the final list into lessons, activities, and assessments. The first step would be to map the suggested competencies to the existing courses to assure that they are embedded throughout the program and not addressed by a standalone course (BACB, 2022; Najdowski et al., 2021). Najdowski et al. suggested several strategies to embed anti racism content that can be useful once the competencies are mapped onto the verified course sequence. These authors stressed the need to set out syllabus goals that includes a diversity statement, course objectives (i.e., competencies that can be embedded), and assignments that directly assess students' knowledge and skills (i.e., measuring fluency of the suggested competencies). They further recommended applying behavior skills training (BST) instructions, modeling, guided rehearsal, and feedback (Fetherston & Sturme, 2014) to assure enough practice of the targeted skills (i.e., competencies). Recently, Hollins et al. (2023) conducted a systematic literature review that identified readings that address (a) philosophical underpinnings/concepts and principles; (b) measurement, data display, and interpretation/experimental design; (c) BACB compliance code and disciplinary systems/professionalism; (d) behavior assessment; (e) behavior-change procedures/selecting and implementing interventions; and (f) personnel supervision and management. This work provides an excellent starting point for academic coordinators and can be used to map the suggested competencies. For example, Hollins et al. cited the following objectives to address BACB compliance code and disciplinary systems/professionalism: (a) ethical self-knowledge; (b) discuss the importance of ethical self-knowledge; (c) identify cultural considerations to the ethics

code; (d) discuss the intersection of DEI and ethical decision-making; (e) consider the relationship between the ethics code and DEI decision-making. With the following readings Baer et al. (1968), Abramson (1996), Rosenberg and Schwartz (2019), and Hollins et al. (2023, p. 3). Table 12 exemplifies how this work can be leveraged to address some of the competencies that reached consensus, with some additional readings and suggested assignments from the principal investigators.

Table 13
Suggested Readings and Assignments

Topics identifies by Hollins et al. (2023)	Suggested Readings	Objectives	Suggested Competencies: Ethics and Values	Potential Assignments
BACB compliance code and disciplinary systems/professionalism.	Baer et al. (1968), Abramson (1996), Rosenberg and Schwartz (2019), Kelly et al., (2019), Kelly et al., 2021, Arango & Lustig (2023)	ethical self-knowledge: (b) discuss the importance of ethical self-knowledge; (c) identify cultural considerations to the ethics code; (d) discuss the intersection of DEI and ethical decision making; (e) ethics code and DEI decision making.	Preservice behavior analysts demonstrate how to plan for and effectively communicate during ethical dilemmas related to differences in opinions, values, agendas, histories, etc. Preservice behavior analysts demonstrate culturally responsive ethical decision-making skills during clinical practice and research. Preservice behavior analysts can identify ethical dilemmas that arise in collaboration with clients from nondominant cultures or cultures different than their own. Preservice behavior analysts can discuss the Behavior Analyst Certification Board (BACB) ethical code and identify the gaps related to diversity, equity, justice, and inclusion that still need to be addressed.	Write up a script for a conversation with client based on a case study. Role play and feedback. Summarize the articles and create a scenario that calls for responsive ethical decision-making. Respond to a case study. Compare the current BACB ethical code with ethical codes of other related professionals and identify gaps between them related to DEJI.

Topics identifies by Hollins et al. (2023)	Suggested Readings	Objectives	Suggested Competencies: Ethics and Values	Potential Assignments
Supporting Diverse Supervisees	LeBlanc et al. (2020) Beaulieu and Jimenez-Gomez (2022) Fong and Tanaka (2013) Jaramillo and Nohelty (2021).	<ul style="list-style-type: none"> • Explain the impact of diverse leadership on supervise and clients. • Identify personal assumptions and biases. • Explain cultural background and privileges DEI Self-Assessment. 	<p>Preservice behavior analysts acknowledge and reflect on the sources of implicit and explicit bias, and practice ways to counter these biases.</p> <p>Preservice behavior analysts understand the behavioral approach for addressing bias and racism (e.g., behavior assessment, intervention, monitoring).</p>	<p>https://www.youtube.com/watch?v=Fr8G7MtRNlk Write a self-reflection on the implicit bias you may hold and how these can impact the service you provide.</p> <p>https://www.behaviourspeak.com/e/episode-68-racism-feminism-in-brazil-with-drs-tahcita-medrado-mizael/ Listen to the podcast, draw similarities of racism and homophobia between Brazil and the US and identify behavioral principles that can be used to disrupt these. Model and practice having a conversation with a client that addresses these biases.</p>

Following the process conducted by Hilton et al. (2021), program directors can employ the ongoing feedback cycles gathering students' input on their training on DEJI competencies. Ongoing evaluation of students' knowledge, skill acquisition, and the application of the same can play a critical role examining the use of the suggested competencies. In addition, program directors can implement pre/post and follow-up measures to examine knowledge, attitudes, and self-efficacy to examine the impact of integrating these competencies systematically in preservice trainings.

Once a solution for a problem of practice is identified, the following step should examine the feasibility and acceptability. Future researchers should examine the feasibility and acceptability of the suggested competencies with program directors and academic advisors of ABA course verified sequence programs. This information could be gathered using similar approaches as in this study, such as conducting other Delphi techniques exploring the consensus

about feasibility and acceptability targeting program directors as experts who implement the requirements of the BACB Task List 5. Other methods can include focus groups and semi structured interviews that can identify potential barriers of implementation. This may be particularly important for program directors in sociopolitical areas that actively resist social justice movements.

Clinician responses do not solely reflect their experiences and perceptions of the importance/value and need for the presented DEJI competencies. Their responses are bounded by the social and political climate of the United States—and, importantly, their local state context, which can conflict what they deem as important and what is legally possible (Schwartz, 2023). As of 2021, 44 states have engaged in legislative that banned or restricted critical race theory from being taught in schools. To date, 16 states passed the legislation leaving teachers without a system to address White supremacy history and current systemic oppression. Subsequently, in 2022, the Governor of Florida issued a bill that bans local government agencies from issuing identification cards to illegal aliens and mandated hospitals to provide data on healthcare expenses of illegal aliens (Florida Governor Ron DeSantis, 2023). In addition, Governor DeSantis issued a legislation that prohibits colleges from spending federal money on campus wide activities devoted to DEI. Defunding campuses DEI initiative will have a devastating impact on students' education in general including those who wish to attend ABA pre-service training in the state of Florida. This year Texas passed Senate Bill 8, which protects the rights of parents who do not want their children to learn about gender identity and sexual orientation. Bill 8 in Florida is another example, and as of February 2023, 29 states have already banned transgender health care for minors or are engaging in the process of banning (Alfonseca, 2023). Today, 6.29.2023 the supreme court ruled to revoke the colleges' affirmative action programs

that were instated in 2003 in the process of acknowledging race as a factor for admission as a mechanism to address racial discrimination and address the systemic barriers to higher education among students from historically marginalized groups (Hurley, 2023). Universities across the US issued official statements that this decision will not change their commitment to the admission of BIPOC students based on excellence, inclusion and belongingness (Miffitt & Woodruff- Borden, 2023). This decision poses another challenge for the efforts focus their efforts on recruitment and retention of BIPOC professionals across many disciplines, ABA included. From a behavioral standpoint, when examining political climate, scholars are moving away from the behavioral principles/concepts used to explain individual behavior onto macro-level insights, observations, and understandings that provide valuable perspectives on the interplay between culture and contingencies. These insights aid in the analysis and understanding of the complex relationships between large-scale cultural patterns and the contingent factors that shape them. The meta contingency enterprise aims to study and make sense of these dynamics. Through the establishment of legal frameworks that define permissible and prohibited behaviors, as well as the implementation of consistent consequences for their enactment, public policies influence and mold societal conduct (Todorov & Freitas Lemos, 2020). These molar insights help us analyze and understand the complex relationships between large-scale cultural patterns and the contingent factors that shape them. Through the establishment of legal frameworks that define permissible and prohibited behaviors, and the implementation of consistent consequences for their enactment, the public policy influence and mold societal conduct (Todorov & Freitas Lemos, 2020). The term "molar" is used to convey the idea of looking at behavior and phenomena on a larger scale, focusing on the whole rather than the individual parts. Molar insights, therefore, refer to broad understandings and observations that capture the dynamics of

complex systems, such as culture and contingencies, in a comprehensive manner (Fleming et al., 2021). Meta contingencies are defined as the existence of higher contingencies that influence and coordinate the behavior of individuals and smaller groups within a culture. Meta contingencies can involve shared goals, cooperative efforts, and complex patterns of reinforcement that extend beyond individual behavior. It includes factors such as political discourse, public opinion, social movements, policy changes, and the overall sociopolitical environment (Baia, & Sampaio, 2019). These factors therefore impact what training programs can directly address or how training programs prepare preservice behavior analysts in a hostile environment (Fleming et al., 2021).

The political climate is a meta contingency influencing the consequences associated with certain behaviors. For example, when specific political ideologies or policies are favored or promoted, individuals who align with those perspectives may experience reinforcement or punishment based on their adherence to or deviation from those ideologies. The political climate can also influence the antecedent conditions for behavior. It can shape the availability and salience of cues, prompts, and social norms that guide individuals' actions. For instance, if a particular political climate fosters an environment of social activism and protest, individuals may be more likely to engage in collective action. Some individuals are strongly motivated by the prevailing political climate, leading to increased political participation and engagement. Others are less influenced or even react negatively to the political climate, resulting in apathy, disengagement, or counter-reactions. Values play a crucial role in shaping individual and collective behaviors. Values guide our actions, attitudes, and decisions. They reflect our beliefs about what is important, just, and morally right. When legislation is introduced that restricts or bans certain ideas or topics like critical race theory, it can impact freedom of thought, academic

discourse, and the understanding of historical and social issues. This contributes to limited diversity of perspectives and a potential reduction in the opportunity for open dialogue and understanding.

This current political climate as a meta contingency can create unconscious bias in responding; however, the principal investigators did not observe patterns of responding that support this claim since the vast majority of the competencies did reach agreement competencies that directly address systemic racism and other forms of oppression.

Implication for Practicing Behavior Analysts and Clients

The suggested competencies presented in this study could serve as an important first step in addressing current disparities. Through validation in this research, these competencies have the potential to be utilized in training professionals, empowering them to improve service accessibility for clients and families from various backgrounds (Beaulieu & Jimenez-Gomez, 2022; Castro-Hostetler et al., 2021; Čolić et al., 2021). By consistently incorporating these competencies into professional practice, future practitioners can develop the ability to identify explicit and implicit aspects of White Supremacy within their work environments and proactively confront instances of racism when they occur (Ortiz et al., 2022). This can contribute to a more inclusive and equitable approach to service provision for all individuals and communities.

The systematic training of preservice behavior analysts based on the suggested competencies is expected to have a positive impact on improving access and the quality of services for clients from historically marginalized communities. Increasing awareness and understanding of ABA among families of color is crucial in addressing the perpetuation of racial disparities. By consistently training preservice behavior analysts in DEJI competencies, they can

take actions that gradually dismantle the distrust that BIPOC clients and their families may currently hold (Capell & Sevon, 2020; Čolić et al., 2021). The lack of knowledge about ABA can lead to the perception that it is an intrusive approach, resulting in limited engagement by Black families and other minoritized communities. This emphasizes the importance of effectively disseminating information about ABA and enhancing access to ABA services (Capell & Sevon, 2020; Rivard et al., 2021). Addressing this knowledge gap and making ABA resources more available can create a more inclusive and equitable environment, allowing Black families and other minoritized groups to access and benefit from these services on par with other populations. This effort can contribute to reducing racial disparities and promoting equal opportunities for all.

By integrating these competencies into training programs and emphasizing the importance of ongoing, in-depth discussions and self-reflection, a nurturing and supportive environment can be cultivated for aspiring practitioners who identify as BIPOC to enter the profession (Arango & Lustig, 2023; Dennison et al., 2019; Miller et al., 2019). Encouraging open and honest conversations about the complexities of race, diversity, and equity within the field can foster a safe space for these individuals to feel heard, understood, and valued. Through repeated discussions and reflection, trainees from diverse backgrounds can explore their unique perspectives and experiences, leading to a deeper understanding of the challenges faced by marginalized communities in the field of behavior analysis (Donovan et al., 2022). This can help create a sense of belonging and empowerment, assuring aspiring BIPOC practitioners that their voices are valued and respected. Furthermore, by actively addressing diversity-related issues and amplifying the experiences of BIPOC professionals, the training process can play a pivotal role in diversifying the current task force within behavior analysis (Catrone et al., 2022). A diverse task force not only reflects the broader society it serves but also brings a variety of perspectives

and insights, enriching the field and enhancing the quality of services provided to clients from different backgrounds (Catrone et al.,2022).

Cultural humility and compassionate practices play essential roles in improving clients and families' sense of being respected and included throughout the entire process (Bermudez & Rios, 2020; Foronda, 2020; Wright, 2019). Emphasizing social justice and active advocacy can potentially have a positive impact on clients' outcomes by providing earlier services to young individuals with disabilities (Castro-Hostetler et al., 2021; Čolić et al., 2021). By increasing awareness and understanding of ABA, addressing knowledge gaps, and advocating for social justice, the field can work towards reducing disparities and ensuring equal opportunities for all clients and their families.

Implication for Future Task List

The current Task List (Task List 5) specifies the benchmark of clinical skills for preservice behavior analysts needs to meet as eligibility criteria to take the certification exam. However, it is still lacking benchmarks addressing DEJI skills (BACB, 2023). Task List-5 was generated in 2017, and the ABA accreditation process was designed to proactively address emerging issues in the field. Each Task List was developed through the utilization of a job analysis tool, which identified and incorporated the relevant competencies necessary to address the current issues (Johnston et al., 2017). The current study demonstrates a need to systematically address DEJI competencies threaded into the process of training preservice behavior analysts. Results from this study can guide future job analysis tools to incorporate the relevant competencies necessary to address the urgently needed social justice competencies (Johnston et al., 2017).

Implications for Future Research

Scale Development

Given the lack of measures that directly assess DEJI competencies for preservice behavior analysts, the aim of this study was to identify the constructs that can be used for training purposes. In other words, the results of this study offer latent variables for future research that can be used to continue in the process of scale development.

Converting the results of a modified Delphi study into a scale offers several benefits. It allows standardization by providing a consistent measurement framework for assessing and quantifying expert opinions or judgments. This ensures that the responses are uniform and comparable across different participants or iterations of the study. Future scaling will allow researchers to measure preservice behavior analysts' level of competency and skill applications of DEJI competencies. Scaling the results will provide a numerical representation, easing interpretation and analysis of the data. It affords statistical analysis, data visualization, and quantitative measures such as means, medians, and standard deviations. By transforming the findings into a scale, researchers can effectively communicate and convey collective expert insights, enhance precision in measuring consensus, and facilitate the replication and validation of the study.

This study constitutes the first two steps of a nine steps process of scale development (Boateng et al., 2018). The first step of scale development involves the identification of the domain(s) and competency generation. This study originated in a non-exhaustive literature review examining publications that aimed to address racism, systemic oppression and social justice. This search, paired with review of professional standards in of the National Association of School Psychology (NASP), the National Association of Social Workers (NASW), the American Psychology Association (APA) and the American Speech-Language-Hearing

Association (ASHA-2008) fields yielded the categories hence constructs to generate a pool of potential scale items. Following the generation of the competencies, we consulted with BCBA's, Ph.D.s. students and special education and applied behavior analysis faculty and integrated their feedback into the competency list distributed later to the BCBA panelists. This is typically achieved through a thorough review of existing literature, consultation with experts in the field, and qualitative research methods such as interviews or focus groups (Haynes et al., 1995).

The second step of scale development is content validity. During this phase experts in the field evaluate the relevance, representativeness, and clarity of the scale items. The current study employed a modified Delphi study that is designed to obtain consensus among experts in the field. The current modified Delphi study included three rounds of the survey allowing the panelist BCBA's to provide feedback and judgments on each competency, identifying any potential flaws, redundancies, or ambiguities. Content validity is established by incorporating expert feedback and making necessary revisions to enhance the quality and comprehensiveness of the scale items. This step ensures that the scale has strong content validity, meaning it measures what it intends to measure (Boateng et al., 2018; McCoach et al., 2013). Due to the low response rate of the open-ended questions in this study, future research should examine implementing focus groups or interviews across different groups (e.g., university program directors, BCBA's, researchers in ABA, BIPOC clients) to seek saturation of the competencies and thereby validate the comprehensiveness of the list generated for this study. The competencies identified and agreed upon by the BCBA panel in the modified Delphi study have already undergone a rigorous evaluation process. These competencies are likely to have high content validity, meaning they are deemed relevant, and representative of the construct being

measured. Utilizing these competencies in scale development can enhance the content validity of the resulting scale.

Starting scale development with a set of competencies derived from a modified Delphi study saves time and effort. The present study has already involved multiple rounds of evaluation, discussion, and refinement, resulting in a refined competency pool. By building upon this existing knowledge base, you can streamline the scale development process and focus on further refining, testing, and validating the competencies. When stakeholders or experts are involved in the process of a Delphi study, they are more likely to embrace and accept the resulting scale that incorporates their inputs. This can contribute to the scale's credibility and increase the likelihood of its adoption and use within the target community or field. The competencies identified through this modified Delphi study are specifically tailored to the context and needs of the study's focus area. By using these competencies as a starting point, you can ensure that the resulting scale is well-aligned with the particular construct and its relevant dimensions in that specific domain. Future research can engage in the following phases to validate the product of this study. Future research can conduct a factor analysis which would identify the underlying dimensions or factors that explain the relationships among a set of observed variables (e.g., competencies). This process can determine the structure of a scale by identifying groups of competencies that measure similar aspects of the construct being studied (Boateng et al., 2018; DeVellis, 2017).

By conducting factor analysis future studies can uncover the underlying dimensions or latent factors that contribute to the observed correlations among competencies. It will provide insight into how different items cluster together, indicating the presence of distinct dimensions within the construct. This information is crucial for organizing and structuring the competencies

into meaningful subscales or dimensions (DeVellis, 2017). Factor analysis will then help in item reduction, particularly when dealing with a large number of competencies such as the comprehensive list suggested by the results of the current study. This process will allow for the identification of redundant or non-contributing items within each factory. By eliminating or combining such competencies, the scale can be streamlined, making it more concise, user-friendly, and manageable without compromising its psychometric properties. Factor analysis helps establish guidelines for scoring and interpreting the scale. It provides information about the relative importance of each factor and the corresponding competency weights. This will enable researchers and practitioners to assign weights or factor scores to competencies and calculate composite scores for each factor, facilitating a more nuanced and precise interpretation of the scale results (Boateng et al., 2018; DeVellis, 2016; Streiner & Norman, 2015).

Systematic Review

The review conducted in this study to identify and develop suggested competencies was comprehensive, but it did not employ a systematic literature review. However, a recent systematic review by Waits et al. (2022) focused on identifying the dimensions of diversity represented in behavior analytic research. The review included four prominent behavioral journals and utilized specific search terms related to diversity, cultural competence, bilingualism, and multiculturalism, among others. Based on the principal investigator's review, additional keywords such as race, social, disability, and systemic can be included in future research to expand on the dimensions discovered by Waits et al. (2022) and further validate the suggested competencies in this study.

Conclusion

In conclusion, the current modified Delphi study conducted to identify DEJI competencies for pre-service behavior analysis graduate training programs has yielded valuable insights and recommendations. Through multiple rounds of BCBA input and consensus-building, the study has provided a comprehensive understanding of the key factors, challenges, and strategies associated with DEJI training. The diverse perspectives and collective wisdom of the panelist BCBAAs have contributed to the robustness of the findings.

This modified Delphi study has shed light on the multifaceted nature of DEJI, emphasizing the importance of addressing systemic barriers, promoting inclusive practices, and fostering equitable opportunities across various domains beginning as early as possible in the process of training preservice behavior analysts. The study has identified critical areas for intervention and training, equitable access to resources, and educational initiatives to enhance cultural awareness cultural competency and cultural humility.

The recommendations generated from the current modified Delphi study serve as a valuable guide for organizations, and stakeholders seeking to promote DEJI training future behavior analysts. By implementing these evidence-based strategies and incorporating the expert consensus, we can work towards creating inclusive environments that value diversity, ensure equity, promote social justice, and foster a culture of inclusivity. The results of the current modified Delphi study contribute to advancing DEJI efforts in the field of ABA and serve as a foundation for further research and practical implementation for training preservice behavior analysts.

References

- Abramson, M. (1996). Reflections on knowing oneself ethically: Toward a working framework for social work practice. *Families in Society: Journal of Contemporary Social Services*, 77(4). <https://doi.org/10.1606/1044-3894.901>.
- Abreu, R. L., Kenny, M. C., Hall, J. G., & Huff, J. (2020). Supporting transgender students: School counselors' preparedness, training efforts, and necessary support. *Journal of LGBT Youth*, 17(1), 107–122. <https://doi.org/10.1080/19361653.2019.1662755fF>
- Akins, R. B., Tolson, H., & Cole, B. R. (2005). Stability of response characteristics of a Delphi panel: Application of bootstrap data expansion. *BMC Medical Research Methodology*, 5, 37. <https://doi.org/10.1186/1471-2288-5-37>
- Alai-Rosales, S., Pritchett, M., Linden, A., Cunningham, I., & Syed, N. (2022). Be humble, learn, and care: Culturally responsive evidence-based practice. In J. B. Leaf, J. H. Cihon, J. L. Ferguson, & M. J. Weiss (Eds.), *Handbook of applied behavior analysis interventions for autism* (pp. 151–167). Springer.
- Alfonseca, K. (2023, February 21). *Mississippi Senate passes ban on transgender health care for minors*. ABC News. <https://abcnews.go.com/Politics/mississippi-senate-passes-ban-transgender-health-care-minors/story?id=97369421>
- American Speech-Language-Hearing Association. (2008). *Knowledge and skills needed by speech-language pathologists providing clinical supervision*. <https://www.asha.org/policy/ks2008-00294/>
- Arango, A., & Lustig, N. (2023). Ignorance and cultural diversity: The ethical obligations of the behavior analyst. *Behavior Analysis in Practice*, 16(1), 23–39. <https://doi.org/10.1007/s40617-022-00701-z>

- Arhin, A., & Thyer, B. A. (2004). The causes of racial prejudice: A behavior analytic perspective. In *Psychology of racial prejudice and discrimination* (pp. 1–19). Routledge.
- Association for Behavioral Analysis International. (2020). *Commitment to equity, 2020*.
<https://www.abainternational.org/about-us/policies-and-positions/commitment-to-equity,-2020.aspx>
- Association for Behavioral Analysis International. (2022). *ABAI statement on conversion therapy and practices, 2022*. <https://www.abainternational.org/about-us/policies-and-positions/policy-statement-on-conversion-therapy-and-practices,-2021.aspx>
- Atterbury, A. (2023, May 15). DeSantis defunds DEI programs at Florida colleges. Politico. Retrieved 6.28.2023 from <https://www.politico.com/news/2023/05/15/desantis-enacts-floridas-dei-ban-00096934>
- Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 1*(1), 91–97.
<https://doi.org/10.1901/jaba.1968.1-91>
- Baier, A. L., Kline, A. C., & Feeny, N. C. (2020). Therapeutic alliance as a mediator of change: A systematic review and evaluation of research. *Clinical Psychology Review, 82*, 101921.
<https://doi.org/10.1016/j.cpr.2020.101921>.
- Baires, N. A., Catrone, R., & May, B. K. (2021). On the importance of listening and intercultural communication for actions against racism. *Behavior Analysis in Practice, 1–8*.
<https://doi.org/10.1007/s40617-021-00629-w>
- Bandura, A. (1971). *Social learning theory*. Morristown.
- Bandura, A. (1972). Modeling theory: Some traditions, trends, and disputes. In R.D. Parke (Ed.), *Recent trends in social learning theory*. Academic Press.

- Bandura, A. (1985). Model of causality in social learning theory. In M. J. Mahoney & A. Freeman (Eds.), *Cognition and psychotherapy*. Springer.
https://doi.org/10.1007/978-1-4684-7562-3_3
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Banerjee, I., Lambert, J. M., Copeland, B. A., Paranczak, J. L., Bailey, K. M., & Standish, C. M. (2022). Extending functional communication training to multiple language contexts in bilingual learners with challenging behavior. *Journal of Applied Behavior Analysis*, 55(1), 80–100. <https://doi.org/10.1002/jaba.883>
- Barnes, S. J., & Mattsson, J. (2016). Understanding current and future issues in collaborative consumption: A four-stage Delphi study. *Technological Forecasting and Social Change*, 104, 200–211. <https://doi.org/10.1016/j.techfore.2016.01.006>
- Beaulieu, L., Addington, J., & Almeida, D. (2019). Behavior analysts' training and practices regarding cultural diversity: The case for culturally competent care. *Behavior Analysis in Practice*, 12(3), 557– 575. <https://doi.org/10.1007/s40617-018-00313-6>.
- Beaulieu, L., & Jimenez-Gomez, C. (2022). Cultural responsiveness in applied behavior analysis: Self-assessment. *Journal of Applied Behavior Analysis*, 55(2), 337–356.
<https://doi.org/10.1002/jaba.907>
- Beene, N. (2019). One perspective on diversity in ABA. *Behavior Analysis in Practice*, 12(4), 899–901. <https://doi.org/10.1007/s40617-019-00378-x>
- Behavior Analyst Certification Board. (2001). *Guidelines for responsible conduct for behavior analysts*. https://www.internationaltrainingcenterabafrica.com/BACB_Conduct_Guidelines.pdf

Behavior Analyst Certification Board. (2014). *BACB compliance code*.

https://www.bacb.com/wp-content/uploads/2020/05/BACB-Compliance-Code-english_190318.pdf

Behavior Analyst Certification Board. (2022). *Ethics code for behavior analysts*.

<https://www.bacb.com/wp-content/uploads/2022/01/Ethics-Code-for-Behavior-Analysts-230119-a.pdf>

Behavior Analyst Certification Board. (2023). *Recent and upcoming changes to BACB requirements*. <https://www.bacb.com/upcoming-changes/>

M Beliso-De Jesús, A., & Pierre, J. (2020). Anthropology of white supremacy. *American Anthropologist*, 122(1), 65-75. <https://doi.org/10.1111/aman.13351>

Bermudez, I. L., & Rios, J. D. (2020). Latinos in applied behavior analysis: We have a long way to go. In B. M. Connors & S. T. Chappell (Eds.), *Multiculturalism and diversity in applied behavior analysis* (pp. 47–56). Routledge.

Birko, S., Dove, E. S., & Özdemir, V. (2015). Evaluation of nine consensus indices in Delphi foresight research and their dependency on Delphi survey characteristics: A simulation study and debate on Delphi design and interpretation. *PLoS ONE*, 10(8), e0135162. <https://doi.org/10.1371/journal.pone.0135162>

Black Lives Matter. (2022, October 12). *Herstory*. <https://blacklivesmatter.com/herstory/>

Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quiñonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: A primer. *Frontiers in Public Health*, 6, 149. <https://doi.org/10.3389/fpubh.2018.00149>

- Boulkedid, R., Abdoul, H., Lousteau, M., Sibony, O., & Alberti, C. (2011). Using and reporting the Delphi method for selecting healthcare quality indicators: A systematic review. *PLoS ONE*, 6(6), e20476. <https://doi.org/10.1371/journal.pone.0020476>
- Brodhead, M. T. (2019). Culture always matters: Some thoughts on Rosenberg and Schwartz. *Behavior Analysis in Practice*, 12(4), 826–830. <https://doi.org/10.1007/s40617-019-00351-8>
- Burkett, K., Morris, E., Anthony, J., Shambley-Ebron, D., & Manning-Courtney, P. (2017). Parenting African American children with autism: The influence of respect and faith in mother, father, single-, and two-parent care. *Journal of Transcultural Nursing*, 28(5), 496–504. <https://doi.org/10.1177/1043659616662316>.
- Burkett, K., Morris, E., Manning-Courtney, P., Anthony, J., & Shambley-Ebron, D. (2015). African American families on autism diagnosis and treatment: The influence of culture. *Journal of Autism and Developmental Disorders*, 45(10), 3244–3254. <https://doi.org/10.1007/s10803-015-2482-x>.
- Burney, V., Arnold-Saritepe, A., & McCann, C. M. (2023). Rethinking the place of qualitative methods in behavior analysis. *Perspectives on Behavior Science*, 1–16. <https://doi.org/10.1007/s40614-022-00362-x>
- Capell, S. T., & Sevon, M. A. (2020). Applied behavior analysis within the African American community. In B. M. Connors & S. T. Capell (Eds.), *Multiculturalism and diversity in applied behavior analysis: Bridging theory and application* (pp. 29–46). Routledge.

- Capriotti, M. R., & Donaldson, J. M. (2022). “Why don't behavior analysts do something?”: Behavior analysts' historical, present, and potential future actions on sexual and gender minority issues. *Journal of Applied Behavior Analysis, 55*(1), 19–39. <https://doi.org/10.1002/jaba.884>
- Casey, S., Day, A., & Howells, K. (2005). The application of the transtheoretical model to offender populations: Some critical issues. *Legal and Criminological Psychology, 10*(2), 157–171. <https://doi.org/10.1348/135532505X36714>
- Castro-Hostetler, M., Greenwald, A. E., & Lewon, M. (2021). Increasing access and quality of behavior-analytic services for the Latinx population. *Behavior and Social Issues, 30*, 13–38. <https://doi.org/10.1007/s42822-021-00064-0>
- Catagnus, R. M., Griffith, A. K., & Umphrey, B. J. (2021). Anger, fear, and sadness: How emotions could help us end a pandemic of racism. *Behavior Analysis in Practice, 1*–12. <https://doi.org/10.1007/s40617-021-00581-9>
- Catrone, R. G., Baires, N. A., Martin, M. R., & Brown-Hollie, J. P. (2022). An intersectional examination of disability and race models in behavior-analytic practice. *Behavior and Social Issues, 1*–30. <https://doi.org/10.1007/s42822-022-00116-z>
- Chase, G. (2018). The early history of the Black Lives Matter movement, and the implications thereof. *Nevada Law Journal, 18*(3), 1091–1112. <https://law.unlv.edu/164evada-law-journal>
- Cirincione-Ulezi, N. (2020). Black women and barriers to leadership in ABA. *Behavior Analysis in Practice, 13*(4), 719–724. <https://doi.org/10.1007/s40617-020-00444-9>

- Clarke, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*, 309–19.
<https://doi.org/10.1037/1040-3590.7.3.309>
- Clauss-Ehlers, C. S., Chiriboga, D. A., Hunter, S. J., Roysircar, G., & Tummala-Narra, P. (2019). APA Multicultural Guidelines executive summary: Ecological approach to context, identity, and intersectionality. *American Psychologist, 74*(2), 232–244. <https://doi.org/10.1037/amp0000382>
- Čolić, M., Araiba, S., Lovelace, T. S., & Dababnah, S. (2021). Black caregivers' perspectives on racism in ASD services: Toward culturally responsive ABA practice. *Behavior Analysis in Practice, 1*–10. <https://doi.org/10.1007/s40617-021-00577-5>
- Conners, B. M. (2020). An introduction to multiculturalism and diversity issues in the field of applied behavior analysis. In B. M. Conners & S. T. Chappell (Eds.), *Multiculturalism and diversity in applied behavior analysis* (pp. 1–3). Routledge.
- Conners, B. M., Johnson, A., Duarte, J., Murriky, R., & Marks, K. (2019). Future directions of training and fieldwork in diversity issues in applied behavior analysis. *Behavior Analysis in Practice, 12*(4), 767–776. <https://doi.org/10.1007/s40617-019-00349-2>
- Crabtree, S. A., Bell, C. A., Rupert, D. A., Sandage, S. J., Devor, N. G., & Stavros, G. (2021). Humility, differentiation of self, and clinical training in spiritual and religious competence. *Journal of Spirituality in Mental Health, 23*(4), 342–362.
<https://doi.org/10.1080/19349637.2020.1737627>

- Critchfield, T. S., Doepke, K. J., Kimberly Epting, L., Becirevic, A., Reed, D. D., Fienup, D. M., Kremsreiter, L. G., & Ecott, C. L. (2017). Normative emotional responses to behavior analysis jargon or how not to use words to win friends and influence people. *Behavior Analysis in Practice, 10*(2), 97–106. <https://doi.org/10.1007/s40617-016-0161-9>
- Danso, R. (2018). Cultural competence and cultural humility: A critical reflection on key cultural diversity concepts. *Journal of Social Work, 2*(4), 410–430. <https://doi.org/10.1177/1468017316654341>
- Day-Vines, N. L., Booker Ammah, B., Steen, S., & Arnold, K. M. (2018). Getting comfortable with discomfort: Preparing counselor trainees to broach racial, ethnic, and cultural factors with clients during counseling. *International Journal for the Advancement of Counselling, 40*(2), 89–104. <https://doi.org/10.1007/s10447-017-9308-9>
- Dennis, L. A. M. (2021). *Evaluating racial discrimination research within behavior analytic journals* [Master's thesis, Missouri State University]. BearWorks.
- Dennison, A., Lund, E. M., Brodhead, M. T., Mejia, L., Armenta, A., & Leal, J. (2019). Delivering home-supported applied behavior analysis therapies to culturally and linguistically diverse families. *Behavior Analysis in Practice, 12*(4), 887–898. <https://doi.org/10.1007/s40617-019-00374-1>
- Deochand, N., & Costello, M. S. (2022). Building a social justice framework for cultural and linguistic diversity in ABA. *Behavior Analysis in Practice, 1*–16. <https://doi.org/10.1007/s40617-021-00659-4>
- DeVellis, R. F. (2016). *Scale development: Theory and applications* (4th ed.). SAGE Publications.

- Dixon, M. R., Zlomke, K. M., & Rehfeldt, R. A. (2006). Restoring Americans' nonequivalent frames of terror: An application of relational frame theory. *Behavior Analyst Today*, 7(3), 275–289. <http://dx.doi.org/10.1037/h0100153>
- Donovan, A., Lancaster, K., & Farris, V. (2022, February 17). *Using solutions of diversity, equity, and inclusion: The failing efforts of behavior analysis to uphold scientific, professional, and ethical standards*. Farris Consulting. <https://doi.org/10.17605/OSF.IO/DJ3NE>
- Dowdy, A., Obidimalor, K. C., Tincani, M., & Travers, J. C. (2021). Delivering culturally sound and high-quality behavior analytic services when working with an interpreter. *Behavior Analysis: Research and Practice*, 21(1), 51–64. <https://doi.org/10.1037/bar0000206>
- Evans, A. L., & Nelson, J. K. (2021). The value of adapting counseling to client's spirituality and religion: Evidence-based relationship factors. *Religions*, 12(11), 951. <https://doi.org/10.3390/rel12110951>
- Fetherston, M. A., & Sturmey, P. (2014). The effects of behavioral skills training on instructor and learner behavior across responses and skills sets. *Research in Developmental Disabilities*, 35, 541–562. <https://doi.org/10.1016/j.ridd.2013.11.006>
- Finstad, K. (2010). Response interpolation and scale sensitivity: Evidence against 5-point scales. *Journal of Usability Studies*, 5(3), 104–110. <https://www.interaction-design.org/literature/journal/journal-of-usability-studies>
- Fisher, E. S. (2020). Cultural humility as a form of social justice: Promising practices for global school psychology training. *School Psychology International*, 41(1), 53–66. <https://doi.org/10.1177/0143034319893097>

Fisher-Borne, M., Cain, J. M., & Martin, S. L. (2015). From mastery to accountability: Cultural humility as an alternative to cultural competence. *Social Work Education, 34*(2), 165–181. <https://doi.org/10.1080/02615479.2014.977244>

Fitzgerald, A. (2020, July). Professional identity: A concept analysis. *Nursing Forum, 55*(3), 447–472. <https://doi.org/10.1111/nuf.12450>

Fleming, W., Ardila-Sánchez, J. G., & Hayes, L. J. (2021). Culture and contingencies: Molar insights for the metacontingency enterprise. *Revista Mexicana de Análisis de la Conducta, 47*(2), 289–343. <https://rmac-mx.org/>

Florida Governor Ron DeSantos (2023, May 10) Governor Ron DeSantis signs Strongest anti-illegal immigration legislation in the country to combat Biden’s border crisis. Retrieved 6.10. 2023 from [https://www.Flgov.com/Wp-Content/Uploads/Desantis/DeSantis%20Initial%20Banner%20at%20960%20x%2080\(1\).jpg](https://www.Flgov.com/Wp-Content/Uploads/Desantis/DeSantis%20Initial%20Banner%20at%20960%20x%2080(1).jpg). <https://flgov.com/2023/05/10/governor-ron-desantis-signs-strongest-anti-illegal-immigration-legislation-in-the-country-to-combat-bidens-border-crisis/>

Fong, E. H. (2020). Examining cross-cultural supervision in applied behavior analysis. In B. M. Connors & S. T. Capell (Eds.), *Multiculturalism and diversity in applied behavior analysis: Bridging theory and application* (pp. 181–193). Routledge. <https://doi.org/10.4324/9780429263873>

Fong, E. H., Catagnus, R. M., Brodhead, M. T., Quigley, S., & Field, S. (2016). Developing the cultural awareness skills of behavior analysts. *Behavior Analysis in Practice, 9*(1), 84–94. <https://doi.org/10.1007/s40617-016-0111-6>

- Fong, E. H., Ficklin, S., & Lee, H. Y. (2017). Increasing cultural understanding and diversity in applied behavior analysis. *Behavior Analysis: Research and Practice, 17*(2), 103–113. <https://doi.org/10.1037/bar0000076>
- Fong, E. H., & Tanaka, S. (2013). Multicultural alliance of behavior analysis standards for cultural competence in behavior analysis. *International Journal of Behavioral Consultation and Therapy, 8*(2), 17–19. <https://doi.org/10.1037/h0100970>
- Fong, V. C., Lee, B. S., & Iarocci, G. (2022). A community-engaged approach to examining barriers and facilitators to accessing autism services in Korean immigrant families. *Autism, 26*(2), 525–537. <https://doi.org/10.1177/13623613211034067>
- Foronda, C. (2020). A theory of cultural humility. *Journal of Transcultural Nursing, 31*(1), 7–12. <https://doi.org/10.1177/104365961987518>
- Foronda, C., Baptiste, D. L., Reinholdt, M. M., & Ousman, K. (2016). Cultural humility: A concept analysis. *Journal of Transcultural Nursing, 27*(3), 210–217. <https://doi.org/10.1177/1043659615592677>
- Gatzunis, K. S., Edwards, K. Y., Rodriguez Diaz, A., Conners, B. M., & Weiss, M. J. (2022). Cultural responsiveness framework in BCBA® supervision. *Behavior Analysis in Practice, 1*–10. <https://doi.org/10.1007/s40617-022-00688-7>
- Ghezzi, E. L., Funk, J. A., & Houmanfar, R. A. (2021). Restructuring law enforcement agencies to support prosocial values: A behavior-scientific model for addressing police brutality. *Behavior Analysis Practice, 15*(4), 1184–1192. <https://doi.org/10.1007/s40617-020-00530-y>

- Gingles, D., Watson-Thompson, J., Anderson-Carpenter, K. D., Tarbox, J., & Peterson, S. M. (2022). Leading the charge: A look inside the behavior analysis in practice emergency series of publications on systemic racism and police brutality. *Behavior Analysis in Practice, 15*(4), 1015–1022. <https://doi.org/10.1007/s40617-022-00759-9>
- Goodwyn, L. A. (2021). Prejudice and oppression: Addressing societal issues of prejudice and oppression: How can behavior analysis help? In J. A. Sadavoy & M. L. Zube (Eds.), *A scientific framework for compassion and social justice* (pp. 225–233). Routledge.
- Green, A. E., Price, M. N., & Dorison, S. H. (2022). Cumulative minority stress and suicide risk among LGBTQ youth. *American Journal of Community Psychology, 69*(1–2), 157–168. <https://doi.org/10.1002/ajcp.12553>
- Hajian-Tilaki, K. (2013). Receiver operating characteristic (ROC) curve analysis for medical diagnostic test evaluation. *Caspian Journal of Internal Medicine, 4*(2), 627–635. <https://casjim.com/>
- Halligan, S., Altman, D. G., & Mallett, S. (2015). Disadvantages of using the area under the receiver operating characteristic curve to assess imaging tests: A discussion and proposal for an alternative approach. *European Radiology, 25*, 932–939. <https://doi.org/10.1007/s00330-014-3487-0>
- Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment, 17*, 238–247. <https://doi.org/10.1037/1040-3590.7.3.238>
- Heiko, A. V. D. G. (2012). Consensus measurement in Delphi studies: Review and implications for future quality assurance. *Technological Forecasting and Social Change, 79*(8), 1525–1536. <https://doi.org/10.1016/j.techfore.2012.04.013>

- Henry, K. A. K., Catagnus, R. M., Griffith, A. K., & Garcia, Y. A. (2021). Ending the school-to-prison pipeline: Perception and experience with zero-tolerance policies and interventions to address racial inequality. *Behavior Analysis in Practice*, 1–10.
<https://doi.org/10.1007/s40617-021-00634-z>
- Herrington, N., & Coogan, J. (2011). Q methodology: An overview. *Research in Teacher Education*, 1(2), 24–28. <https://uel.ac.uk/sites/default/files/joy-coogan-and-neil-herrington-2011-q-methodology-an-overview-research-in-teacher-education-vol-1-no-2-24-28.pdf>
- Heward, W. L., Critchfield, T. S., Reed, D. D., Detrich, R., & Kimball, J. W. (2022). ABA from A to Z: Behavior science applied to 350 domains of socially significant behavior. *Perspectives on Behavior Science*, 1–33. <https://doi.org/10.1007/s40614-022-00336-z>
- Hill, E., Tiefenthäler, A., Triebert, C., Jordan, D., Willis, H., & Stein, R. (2020). *How George Floyd was killed in police custody*. New York Times.
<https://www.nytimes.com/2020/05/31/us/george-floyd-investigation.html>
- Hilton, J., Syed, N., Weiss, M. J., Tereshko, L., Marya, V., Marshall, K., Gatzunis, K., Russell, C., & Driscoll, N. (2021). Initiatives to address diversity, equity, and inclusion within a higher education ABA Department. *Behavior and Social Issues*, 30, 58–81.
<https://doi.org/10.1007/s42822-021-00082-y>
- Hollins, N. A., Morris, C., & Li, A. (2023). Integrating diversity, equity, and inclusion readings within coursework: Suggestions for instructors teaching behavior analysis. *Behavior Analysis in Practice*, 16(2), 629–639. <https://doi.org/10.1007/s40617-023-00781-5>

- Hugh-Pennie, A. K., Hernandez, M., Uwayo, M., Johnson, G., & Ross, D. (2021). Culturally relevant pedagogy and applied behavior analysis: Addressing educational disparities in PK–12 Schools. *Behavior Analysis in Practice*, 1–9. <https://doi.org/10.1007/s40617-021-00655-8>
- Hurley, L. (2023, June 29). Supreme Court strikes down college affirmative action programs. NBC News. Retrieved 6.29.2023 from <https://www.nbcnews.com/politics/supreme-court/supreme-court-strikes-affirmative-action-programs-harvard-unc-rcna66770>
- Indigenous Action. (2014, May 4). *Accomplices do not ally: Abolishing the ally industrial complex* [Blog post]. <https://www.indigenouaction.org/accomplices-not-allies-abolishing-the-allyindustrial-complex/>
- Izaryk, K., & Skarakis-Doyle, E. (2017). Using the Delphi technique to explore complex concepts in speech-language pathology: An illustrative example from children's social communication. *American Journal of Speech-Language Pathology*, 26(4), 1225–1235. https://doi.org/10.1044/2017_AJSLP-16-0046
- James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). *Executive summary of the report of the 2015 U.S. Transgender Survey*. National Center for Transgender Equality. <http://www.transequality.org/sites/default/files/docs/usts/Executive%20Summary%20-%20FINAL%201.6.17.pdf>
- Jaramillo, C., & Nohelty, K. (2021). Guidance for behavior analysts in addressing racial implicit bias. *Behavior Analysis in Practice*, 1–14. <https://doi.org/10.1007/s40617-021-00631-2>
- Jenkins, J. P. (2022, September 12). *White supremacy*. Encyclopedia Britannica. <https://www.britannica.com/topic/white-supremacy>

- Jiménez-Rodríguez, D., Ruiz-Salvador, D., Rodríguez Salvador, M. D. M., Pérez-Heredia, M., Muñoz Ronda, F. J., & Arrogante, O. (2020). Consensus on criteria for good practices in video consultation: A Delphi study. *International Journal of Environmental Research and Public Health*, *17*(15), 1–15. <https://doi.org/10.3390/ijerph17155396>
- Johnston, J. M., Carr, J. E., & Mellichamp, F. H. (2017). A history of the professional credentialing of applied behavior analysts. *Behavior Analyst*, *40*(2), 523–538. <https://doi.org/10.1007/s40614-017-0106-9>
- Joseph, A. (2021). *Autism and the experiences of immigrant and culturally diverse families accessing behavioral interventions* [Master's thesis, University of Manitoba]. <https://mspace.lib.umanitoba.ca/bitstream/handle/1993/35910/thesis.pdf?sequence=1>
- Keeney, S., McKenna, H., & Hasson, F. (2011). *The Delphi technique in nursing and health research*. John Wiley & Sons.
- Kelly, E. M., Greeny, K., Rosenberg, N., & Schwartz, I. (2021). When rules are not enough: Developing principles to guide ethical conduct. *Behavior Analysis in Practice*, *14*(2), 491–498. <https://doi.org/10.1007/s40617-020-00515-x>
- Kelly, M. P., Martin, N., Dillenburger, K., Kelly, A. N., & Miller, M. M. (2019). Spreading the news: History, successes, challenges and the ethics of effective dissemination. *Behavior Analysis in Practice*, *12*(2), 440–451. <https://doi.org/10.1007/s40617-018-0238-8>
- Khodyakov, D., Grant, S., Denger, B., Kinnett, K., Martin, A., Peay, H., & Coulter, I. (2020). Practical considerations in using online modified-Delphi approaches to engage patients and other stakeholders in clinical practice guideline development. *Patient – Patient-Centered Outcomes Research*, *13*(1), 11–21. <https://doi.org/10.1007/s40271-019-00389-4>

- Kolb, R. L., Robers, A. C., Brown, C., & McComas, J. J. (2022). Beyond cultural responsiveness: Applied behavior analysis through a lens of cultural humility. In T. W. Farmer, E. Talbott, K. McMaster, D. Lee, & T. C. Aceves (Eds.), *Handbook of special education research* (Vol. 1, pp. 144–157). Routledge.
- Konrad, M. H., & De Souza, A. A. (2021). Navigating cultural differences during the delivery of behavior analysis services in Austria. *Behavior and Social Issues, 30*(1), 323–342. <https://doi.org/10.1007/s42822-021-00077-9>
- Kornack, J., Cernius, A., & Persicke, A. (2019). The diversity is in the details: Unintentional language discrimination in the practice of applied behavior analysis. *Behavior Analysis in Practice, 12*(4), 879–886. <https://doi.org/10.1007/s40617-019-00377-y>
- LeBlanc, L. A., Taylor, B. A., & Marchese, N. V. (2020). The training experiences of behavior analysts: Compassionate care and therapeutic relationships with caregivers. *Behavior Analysis in Practice, 13*(2), 387–393. <https://doi.org/10.1007/s40617-019-00368-z>
- Lee, C. G., Park, S., Lee, S. H., Kim, H., & Park, J. W. (2018). Social cognitive theory and physical activity among Korean male high-school students. *American Journal of Men's Health, 12*(4), 973–980. <https://doi.org/10.1177/1557988318754572>
- Leland, W., & Stockwell, A. (2019). A self-assessment tool for cultivating affirming practices with transgender and gender-nonconforming (TGNC) clients, supervisees, students, and colleagues. *Behavior Analysis in Practice, 12*(4), 816–825. <https://doi.org/10.1007/s40617-019-00375-0>
- Leland, W., & Stockwell, A. (2021). Anti-oppressive restorative justice: Behavior analysis in alternatives to policing. *Behavior Analysis in Practice, 1*–5. <https://doi.org/10.1007/s40617-021-00633-0>

- Levy, S., Siebold, A., Vaidya, J., Truchon, M. M., Dettmering, J., & Mittelman, C. (2021). A look in the mirror: How the field of behavior analysis can become anti-racist. *Behavior Analysis in Practice*, 1–14. <https://doi.org/10.1007/s40617-021-00630-3>
- Linstone, H. A., & Turoff, M. (2011). Delphi: A brief look backward and forward. *Technological Forecasting and Social Change*, 78(9), 1712–1719. <https://doi.org/10.1016/j.techfore.2010.09.011>
- Lundberg, A., de Leeuw, R., & Aliani, R. (2020). Using Q methodology: Sorting out subjectivity in educational research. *Educational Research Review*, 31, 100361. <https://doi.org/10.1016/j.edurev.2020.100361>
- Machado, M. A., & Lugo, A. M. (2021). A behavioral analysis of two strategies to eliminate racial bias in police use of force. *Behavior Analysis in Practice*, 1–11. <https://doi.org/10.1007/s40617-021-00551-1>
- Machalicek, W., Strickland-Cohen, K., Drew, C., & Cohen Lissman, D. (2021). Sustaining personal activism: Behavior analysts as anti-racist accomplices. *Behavior Analysis in Practice*, 1–8. <https://doi.org/10.1007/s40617-021-00580-w>
- Makhmutov, R. (2021). The Delphi method at a glance. *Pflege*, 34(4), 221. <https://doi.org/10.1024/1012-5302/a000812>
- Martin, J. (2021). Breonna Taylor: Transforming a hashtag into defunding the police. *Journal of Criminal Law & Criminology*, 111(4), 995. <https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=7710&context=jclc>

- Martinez, S., & Mahoney, A. (2022). Culturally sensitive behavior intervention materials: A tutorial for practicing behavior analysts. *Behavior Analysis in Practice*, 1–25. <https://doi.org/10.1007/s40617-022-00703-x>
- Matsuda, K., Garcia, Y., Catagnus, R., & Brandt, J. A. (2020). Can behavior analysis help us understand and reduce racism? A review of the current literature. *Behavior Analysis in Practice*, 13(2), 336–347. <https://doi.org/10.1007/s40617-020-00411-4>
- McCafferty, K. E. (2022). *A Delphi survey on the implementation of trauma-informed care techniques for autistic children* [Master's thesis, University of Oregon]. UOregon Scholars Bank. https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/27603/McCafferty_oregon_0171N_13335.pdf?sequence=1&isAllowed=y
- McCoach, D. B., Gable, R. K., & Madura, J. P. (2013). *Instrument development in the affective domain: School and corporate applications* (3rd ed.). Springer.
- McPhail, S. M. (2007). *Alternative validation strategies: Developing new and leveraging existing validity evidence*. John Wiley & Sons.
- Meerwijk, E. L., & Sevelius, J. M. (2017). Transgender population size in the United States: A meta-regression of population-based probability samples. *American Journal of Public Health*, 107(2), 1–8. <https://doi.org/10.2105/AJPH.2016.303578>
- Melroe, K., & Robbins, J. (2020). Applied behavior analysis with Indigenous populations. In B. M. Conners & S. T. Capell (Eds.), *Multiculturalism and diversity in applied behavior analysis: Bridging theory and application* (pp. 57–68). Routledge.
- Miffitt, J., & Woodruff- Borden, J. (Personal communication, June 29, 2023).

- Miller, K. L., Re Cruz, A., & Alai-Rosales, S. (2019). Inherent tensions and possibilities: Behavior analysis and cultural responsiveness. *Behavior and Social Issues, 28*(1), 16–36. <https://doi.org/10.1007/s42822-019-00010-1>
- Miller, W. R., & Rollnick, S. (2014). The effectiveness and ineffectiveness of complex behavioral interventions: Impact of treatment fidelity. *Contemporary Clinical Trials, 37*(2), 234–241. <http://dx.doi.org/10.1016/j.cct.2014.01.005>
- Morris, C., Goetz, D. B., & Gabriele-Black, K. (2021). The treatment of LGBTQ+ individuals in behavior-analytic publications: A historical review. *Behavior Analysis in Practice, 14*, 1179–1190. <https://doi.org/10.1007/s40617-020-00546-4>
- Moynihan, S., Paakkari, L., Välimaa, R., Jourdan, D., & Mannix-McNamara, P. (2015). Teacher competencies in health education: Results of a Delphi study. *PLoS ONE, 10*(12), e0143703. <https://doi.org/10.1371/journal.pone.0143703>
- Najdowski, A. C., Gharapetian, L., & Jewett, V. (2021). Toward the development of anti-racist and multicultural graduate training programs in behavior analysis. *Behavior Analysis in Practice, 1*–16. <https://doi.org/10.1007/s40617-020-00504-0>
- National Association of School Psychologists. (2021, December 14). *Professional standards*. <https://www.nasponline.org/standards-and-certification/professional-ethics>
- Newell, M. L., Nastasi, B. K., Hatzichristou, C., Jones, J. M., Schanding, G. T., Jr., & Yetter, G. (2010). Evidence on multicultural training in school psychology: Recommendations for future directions. *School Psychology Quarterly, 25*(4), 249. <https://doi.org/10.1037/a0021542>
- Norcross, J. C., Krebs, P. M., & Prochaska, J. O. (2011). Stages of change. *Journal of Clinical Psychology, 67*(2), 143–154. <https://doi.org/10.1002/jclp.20758>

- Olsen, P. M., & Kelly, M. P. (2020). Applied behavior analysis with Arab-Muslim populations: The importance of cultural awareness. In B. M. Connors & S. T. Capell (Eds.), *Multiculturalism and diversity in applied behavior analysis: Bridging theory and application*. (pp. 140–163). Taylor & Francis/Routledge.
- Ortiz, S. M., Joseph, M. A., & Deshais, M. A. (2022). Increasing diversity content in graduate coursework: A pilot investigation. *Behavior Analysis in Practice*, 1–10.
<https://doi.org/10.1007/s40617-022-00714-8>
- Oxford English Dictionary. (2022). *Diversity*.
<https://www.oxfordlearnersdictionaries.com/us/definition/english/diversity#:~:text=%5Buncountable%5D%20the%20practice%20or%20quality,different%20genders%2C%20religions%2C%20etc.>
- Pavlicic, J. M., Kellum, K. K., & Schulenberg, S. E. (2021). Advocating for the use of restorative justice practices: Examining the overlap between restorative justice and behavior analysis. *Behavior Analysis in Practice*, 15(4), 1237–1246.
<https://doi.org/10.1007/s40617-021-00632-1>
- Pearce, M. J., Pargament, K. I., Oxhandler, H. K., Vieten, C., & Wong, S. (2019). A novel training program for mental health providers in religious and spiritual competencies. *Spirituality in Clinical Practice*, 6(2), 73–82. <https://doi.org/10.1037/scp0000195>
- Peitzmeier, S. M., Malik, M., Kattari, S. K., Marrow, E., Stephenson, R., Agénor, M., & Reisner, S. L. (2020). Intimate partner violence in transgender populations: Systematic review and meta-analysis of prevalence and correlates. *American Journal of Public Health*, 110(9), 1–14. <https://doi.org/10.2105/AJPH.2020.305774>

- Petrocelli, J. V. (2002). Processes and stages of change: Counseling with the transtheoretical model of change. *Journal of Counseling & Development, 80*(1), 22–30.
<https://doi.org/10.1002/j.1556-6678.2002.tb00162.x>
- Petronelli, A., & Ferguson, R. (2022). Into inclusion: Increasing trans-inclusive practices with behavior analysis. *Behavior Analysis in Practice, 1*–12.
<https://doi.org/10.1007/s40617-021-00669-2>
- Pew Research Center. (2008, February 11). *U.S. population projections: 2005–2050*.
<https://www.pewresearch.org/hispanic/2008/02/11/us-population-projections-2005-2050/>
- Pritchett, M., Alai-Rosales, S., Cruz, A. R., & Cihon, T. M. (2021). Social justice is the spirit and aim of an applied science of human behavior: Moving from colonial to participatory research practices. *Behavior Analysis in Practice, 1*–19.
<https://doi.org/10.1007/s40617-021-00591-7>
- Ramsey, Z. S., Davidov, D. M., Levy, C. B., & Abildso, C. G. (2022). An etic view of LGBTQ healthcare: Barriers to access according to healthcare providers and researchers. *Journal of Gay & Lesbian Social Services, 1*–19. <https://doi.org/10.1080/10538720.2022.2042452>
- Rivard, M., Millau, M., Mello, C., Clément, C., Mejia-Cardenas, C., Boulé, M., & Magnan, C. (2021). Immigrant families of children with autism disorder’s perceptions of early intensive behavioral intervention services. *Journal of Developmental and Physical Disabilities, 33*(4), 633–651. <https://doi.org/10.1007/s10882-020-09764-8>
- Rohrer, J. L., Marshall, K. B., Suzio, C., & Weiss, M. J. (2021). Soft skills: The case for compassionate approaches or how behavior analysis keeps finding its heart. *Behavior Analysis in Practice, 14*(4), 1135–1143. <https://doi.org/10.1007/s40617-021-00563-x>

- Rosenberg, N. E., & Schwartz, I. S. (2019). Guidance or compliance: What makes an ethical behavior analyst? *Behavior Analysis in Practice*, *12*(2), 473–482.
<https://doi.org/10.1007/s40617-018-00287-5>
- Rumjaun, A., & Narod, F. (2020). Social learning theory—Albert Bandura. In B. Akpan & T. J. Kennedy (Eds.), *Science education in theory and practice*. Springer.
https://doi.org/10.1007/978-3-030-43620-9_7
- Sabin, J. A., Riskind, R. G., & Nosek, B. A. (2015). Health care providers' implicit and explicit attitudes toward lesbian women and gay men. *American Journal of Public Health*, *105*(9), 1831–1841. <https://doi.org/10.2105/AJPH.2015.302631>
- Sinclair, J., Hansen, S. G., Machalicek, W., Knowles, C., Hirano, K. A., Dolata, J. K., Blakely, A. W., Seeley, J., & Murray, C. (2018). A 16-year review of participant diversity in intervention research across a selection of 12 special education journals. *Exceptional Children*, *84*(3), 312–329. <https://doi.org/10.1177/0014402918756989>
- Singer, M. K. (2012). Applying the concept of culture to reduce health disparities through health behavior research. *Preventive Medicine*, *55*(5), 356–361.
<https://doi.org/10.1016/j.ypmed.2012.02.011>.
- Skinner, B. F. (1972). *Beyond freedom and dignity*. Hackett Publishing.
- Skroumpelos, A., Zavras, D., Pavi, E., & Kyriopoulos, J. (2013). Recommending organized screening programs for adults in Greece: A Delphi consensus study. *Health Policy*, *109*(1), 38–45. <https://doi.org/10.1016/j.healthpol.2012.08.003>

- Song, B., Zhang, G., Zhu, W., & Liang, Z. (2014). ROC operating point selection for classification of imbalanced data with application to computer-aided polyp detection in CT colonography. *International Journal of Computer Assisted Radiology and Surgery*, 9(1), 79–89. <https://doi.org/10.1007/s11548-013-0913-8>
- Stevens Smith, H., Russell, H. V., Lee, B. H., & Morain, S. R. (2020). Using the Delphi method to identify clinicians' perceived importance of pediatric exome sequencing results. *Genetics in Medicine*, 22(1), 69–76. <https://doi.org/10.1038/s41436-019-0601-3>
- Stickl Haugen, J., Bledsoe, K. G., Burgess, M., & Rutledge, M. L. (2021). Framework of anti-racist school counseling competencies: A Delphi study. *Journal of Counseling & Development*, 110(3), 1–14. <https://doi.org/10.1002/jcad.12422>
- Strear, M., Forbes, L., & Henninger, J. (2018). Procedures, pitfalls, and product: Delphi methodology in counseling research. *Counseling Outcome Research and Evaluation*, 9(1), 55–66. <https://doi.org/10.1080/21501378.2017.1403847>
- Streiner, D. L., & Norman, G. R. (2015). *Health measurement scales: A practical guide to their development and use* (5th ed.). Oxford University Press.
- Sullivan, G. M., & Artino, A. R., Jr. (2013). Analyzing and interpreting data from Likert-type scales. *Journal of Graduate Medical Education*, 5(4), 541–542. <https://doi.org/10.4300/JGME-5-4-18>
- Sullivan-Kirby, M. (2019). Section 6.0: Behavior analysts' ethical responsibility to the profession of behavior analysis and section 7.0: Behavior analysts' ethical responsibility to colleagues. In Beirne & Sadavoy (Eds.), *Understanding ethics in applied behavior analysis* (pp. 148–164). Routledge.

- Syed, N. Y., Mellon, L., & Kristiansen, S. (2023). Equity, diversity, inclusion, and accessibility in research. In D. J. Cox, N. Syed, M. Brodhead, & S. Quigley (Eds.), *Research ethics in behavior analysis* (pp. 63–86). Academic Press.
- Schwartz, S. (2023, June 13). Map: Where Critical Race Theory is under attack. Education Week. Retrieved 6.13. 2023 from <https://www.edweek.org/policy-politics/map-where-critical-race-theory-is-under-attack/2021/06>
- Taylor, B. A., LeBlanc, L. A., & Nosik, M. R. (2019). Compassionate care in behavior analytic treatment: Can outcomes be enhanced by attending to relationships with caregivers? *Behavior Analysis in Practice*, *12*(3), 654–666.
<https://doi.org/10.1007/s40617-018-00289-3>
- Tervalon, M., & Murray-García, J. (1998). Cultural humility versus cultural competence: A critical distinction in defining physician training outcomes in multicultural education. *Journal of Health Care for the Poor and Underserved*, *9*(2), 117–125.
<https://doi.org/10.1353/hpu.2010.0233>
- Todorov, J. C., & Freitas Lemos, R. (2020). Applying behavioral science to large-scale social changes. In T. M. Cihon & M. A. Mattaini (Eds.), *Behavior science perspectives on culture and community*. Springer. https://doi.org/10.1007/978-3-030-45421-0_8
- Tracy, S. J. (2019). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. John Wiley & Sons.

- Treviño, R. B., Iwamasa, G. Y., & Yamamiya, Y. (2017). Promoting cultural humility and addressing microaggressions in mental health training: The role of multicultural training workshops. *Training and Education in Professional Psychology, 11*(3), 169–177. <https://doi.org/10.1037/tep0000130>
- Vande Kemp, H., & Hu, J. (2019). Culturally responsive practice: The use of cultural humility and reflective practices in social work. *Journal of Ethnic and Cultural Diversity in Social Work, 28*(4), 282–297. <https://doi.org/10.1080/15313204.2019.1573641>
- Vieten, C., & Lukoff, D. (2022). Spiritual and religious competencies in psychology. *American Psychologist, 77*(1), 26–38. <https://doi.org/10.1037/amp0000821>
- Vieten, C., Scammell, S., Pilato, R., Ammondson, I., Pargament, K. I., & Lukoff, D. (2013). Spiritual and religious competencies for psychologists. *Psychology of Religion and Spirituality, 5*(3), 129–144. <https://doi.org/10.1037/a0032699>
- Vogel, C., Zwolinsky, S., Griffiths, C., Hobbs, M., Henderson, E., & Wilkins, E. (2019). A Delphi study to build consensus on the definition and use of big data in obesity research. *International Journal of Obesity, 43*(12), 2573–2586. <https://doi.org/10.1038/s41366-018-0313-9>
- Watts, S., & Stenner, P. (2012). *Doing Q methodological research: Theory, method, and interpretation*. SAGE Publications.
- Wright, P. I. (2019). Cultural humility in the practice of applied behavior analysis. *Behavior Analysis in Practice, 12*(4), 805–809. <https://doi.org/10.1007/s40617-019-00343-8>
- Zarcone, J., Brodhead, M., & Tarbox, J. (2019). Beyond a call to action: An introduction to the special issue on diversity and equity in the practice of behavior analysis. *Behavior Analysis in Practice, 12*, 741–742. <https://doi.org/10.1007/s40617-019-00390-1>

Appendix A
Suggested DEJI Competencies

Instructions

- a. Each proposed competency will be followed by the same questions:
 - a. Rate the importance of the proposed competency for preservice behavior analysts on a 9 points Likert scale (1-not at all important-9-extremely important)
 - b. Should the proposed competency be included in the final list (yes/no)
 - c. Do you have any suggestions for improving the clarity of the description of this competency? (Open text).
- b. At the end of each section, participants will be asked:
 - a. is there any competency in this section (named section) that we have not described but you believe should be considered?" (Open text box) and,
 - b. Rank the order the importance of all the competencies in each section.

Ethics and Values

1. Preservice behavior analysts are knowledgeable about the values, ethics, and standards of the profession.
2. Preservice behavior analysts demonstrate knowledge of community-based participatory research (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process) practices.
3. Preservice behavior analysts demonstrate applications of community-based participatory research (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process) practices

in behavior analytic research that prevent exploitation and harm to vulnerable populations.

4. Preservice behavior analysts are aware of their personal and professional limitations in working with diverse clients.
5. Based on their self-identified personal and professional limitations, preservice behavior analysts demonstrate when and how to make appropriate referrals to other behavior analysts or other professionals with relevant experience and specialized knowledge of the client's culture.
6. Preservice behavior analysts demonstrate practices allowing client assent and consent (where relevant) to assessment and intervention for populations with limited language.
7. Preservice behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.
8. Preservice behavior analysts can discuss the Behavior Analyst Certification Board (BACB) ethical code and identify the gaps related to diversity, equity, justice, and inclusion that still need to be addressed.
9. Preservice behavior analysts demonstrate incorporation of client voice in social validity measures (e.g., questionnaires, interview, behavioral observation measures including assessment of client affect and indices of happiness) used in clinical practice and research.
10. Preservice behavior analysts demonstrate the use of client centered practices to increase client engagement during assessment, intervention, and progress monitoring.
11. Preservice behavior analysts prioritize client outcomes and wellbeing over personal and/or professional gains.

12. Preservice behavior analysts demonstrate how to plan for and effectively communicate during ethical dilemmas related to differences in opinions, values, agendas, histories, etc.
13. Preservice behavior analysts demonstrate culturally responsive ethical decision-making skills during clinical practice and research. Preservice behavior analysts demonstrate culturally responsive ethical decision-making skills during clinical practice and research.
14. Preservice behavior analysts can identify ethical dilemmas that arise in collaboration with clients from nondominant cultures or cultures different than their own.

Cross-Cultural Applications with Clients and Their Families of Different Racial and Ethnic Backgrounds, with Clients and Their Families who HAVE Different Spiritual and Religious Backgrounds, with Clients and Their Families who Speak Nondominant Language, and with Clients who Identify as Sexual and Gender Minority:

15. Preservice behavior analysts use appropriate culturally sensitive methodological approaches, skills, and techniques that reflect the professionals' understanding of the role of culture, spirituality and gender identity in the life of the client.
16. Preservice behavior analysts can identify potentially problematic items on commonly used standardized assessment tools in ABA for culturally diverse clients.
17. Preservice behavior analysts demonstrate effective use of noncolonial strategies in the practice of applied behavior analysis including the use of active participation in the development of treatment goals and services by clients and interested parties.
18. Preservice behavior analysts demonstrate the ability to effectively convey assessment results to families from different cultural backgrounds.
19. Preservice behavior analysts demonstrate use of instructional/intervention materials that validate and consider client' cultural, linguistic, and spiritual, racial and gender identities.

20. Preservice behavior analysts demonstrate the ability to construct culturally relevant intervention goals in collaboration with clients from nondominant cultures or cultures different than their own.
21. Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among Asian Americans, LGBTQAI+) and demonstrate cultural humility (self-reflection and self-critique whereby the individual learns about another's culture, but one starts with an examination of her/his own beliefs and cultural identities) in determining their client's values and preferences and worldview.
22. When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst recognizes that the client's beliefs about the variables to human behavior and learning might differ from their own.
23. When providing behavior analytic services to a client from a cultural background different than their own, the preservice behavior analyst can identify when misunderstandings occur due to intercultural communication breakdown.
24. The preservice behavior analyst understands that a client from a cultural background different than their own may perceive the use of language differently and understands the role of this difference in socio-pragmatic rules in communication breakdown. Examples include requests or topics that are culturally inappropriate for one of the parties given the context or use of personal address, bodily distance, nonverbal communication seen as disrespectful or nonengaged by one of the parties.
25. Preservice behavior analyst understands the practice and role of cultural brokerage (bridging, linking, or mediating between groups or persons of differing cultural backgrounds for the purpose of reducing conflict or producing change) in easing

culturally based misunderstandings and improving communication when the behavior analyst is from a cultural background different from their client.

26. Preservice behavior analysts will be attentive to the values, beliefs, and fears of diverse clients and colleagues that could affect participation in intervention.
27. Preservice behavior analysts demonstrate how to plan for and effectively communicate during situations related to differences in opinions, values, agendas, histories, etc.
28. Preservice behavior analysts are aware of potential power dynamics and information inequities that may be present when clients and colleagues are from different backgrounds and identities than their own.
29. Preservice behavior analysts incorporate two-way communication and feedback loops during intervention and research activities.
30. Preservice behavior analysts demonstrate knowledge of how to extend ABA interventions to bilingual clients from different cultural backgrounds other than their own.
31. Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among Asian Americans, LGBTQAI+) and demonstrate cultural humility (self-reflection and self-critique whereby the individual learns about another's culture, but one starts with an examination of her/his own beliefs and cultural identities) in determining their client's values and preferences and worldview.
32. Preservice behavior analysts can identify resources for educating clients, supervisees, and colleagues about inclusive behaviors towards historically marginalized communities (i.e., LGBTQAI+ communities).
33. Preservice behavior analysts understand when to appropriately seek cultural brokerage (bridging, linking, or mediating between groups or persons of differing cultural

backgrounds for the purpose of reducing conflict or producing change), professional development or when to refer to other behavior analysts when providing ABA services to clients with different spiritual, religious, and secular beliefs and affiliations, different race and ethnicity, different gender identity, than their own.

Cultural Awareness and Reflective Practices

34. Preservice behavior analysts demonstrate self-awareness of their own personal, cultural values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.
35. Preservice behavior analysts acknowledge and reflect on the sources of implicit and explicit bias, and practice ways to counter these biases.
36. Preservice behavior analysts acknowledge and reflect on the historical and cultural context different clients and colleagues bring to the team, particularly those systematically excluded from research and intervention.
37. Preservice behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values and practices and demonstrate practices that minimize their imposition of these beliefs, values and practices onto their clients.
38. Preservice behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values and practices and demonstrate practices that minimize their imposition of these beliefs, values and practices onto their clients.

Awareness of Other Cultures and Cultural Humility

39. Preservice behavior analysts demonstrate knowledge about White supremacy and the structural violence of racism that Black, Indigenous and other people of color experience in the United States.
40. Preservice behavior analysts demonstrate knowledge of systemic oppression of individuals with disability, especially at the intersection of disability and race/ethnicity.
41. Preservice behavior analysts document knowledge of social determinants of health and behavior including racism and poverty.
42. Preservice behavior analysts demonstrate knowledge of anti-racist and anti-bias actions with various identities and cultures.
43. Preservice behavior analysts demonstrate knowledge about the history of measurement development and how it has been historically used to harm people with disabilities and people of color (IQ, adaptive behavior, mental health).
44. Preservice behavior analysts demonstrate understanding of acculturation (the assimilation to a different culture, typically the dominant one) processes, intergenerational dynamics, and the challenges faced by recent immigrants to a culture different than their home culture.
45. Preservice behavior analysts recognize the great diversity among groups (e.g., there is great diversity among African Americans, individuals who identify as sexual and gender minority) and demonstrate cultural humility in determining their client's values and preferences and worldview.
46. Preservice behavior analysts use authentic engagement and active listening, self-reflection practices and an approach of cultural humility when working with clients, and

supervisees with different cultural or sexual identity other than their own to disrupt potential power imbalances and identify shared values.

47. Preservice behavior analysts understand practices that can provide or advocate for the provision of information, referrals, and services in the language appropriate to the client, which may include use of interpreters.

48. Preservice behavior analysts demonstrate awareness of the legal, ethical, and practical issues related to language translation and the appropriate use of interpreters in assessment and intervention for non-English-speaking clients.

Cross-Cultural Application with Clients Who Identify as a Sexual or Gender Minority

49. Preservice behavior analysts demonstrate use of identity affirming practices with transgender and gender nonconforming (TGNC) clients, supervisees, and colleagues.

50. Preservice behavior analysts demonstrate understanding that people have diverse sexual orientations, gender identities and gender expressions that intersect with other identities and contexts.

51. Preservice behavior analysts can discuss the history of conversion therapy in relation to sexual orientation, the harms cause by attempting to change sexual orientation, and current ethical guidelines for behavior analysts that are against conversion therapy.

52. Preservice behavior analysts examine their own bias, attitudes about, and knowledge of sexual orientation, gender identity, and gender expression may impact their practices in ABA, particularly the services they provide to LGBTQAI+ clients.

53. Preservice behavior analysts can list best practices for outreach to LGBTQAI+ communities including representation in outreach materials (i.e., brochures and websites).

54. Preservice behavior analysts demonstrate understanding that gender is nonbinary with a range of gender identities and expressions and that gender identity may not align with assigned sex at birth.
55. Preservice behavior analysts know how to adapt interventions and use culturally responsive teaching and training strategies when working with clients and families who identify as a sexual or gender minority.
56. Preservice behavior analysts know how to identify and address communication errors that may occur when working with clients and colleagues who identify as a sexual or gender minority.
57. Preservice behavior analysts can list practices to affirm the identity and inclusion of sexual minority clients and communities during all aspects of research (e.g., providing a range of demographic options in surveys).

Cultural Application with Clients from Different Religious and Spiritual Backgrounds

58. Preservice behavior analysts understand that clients may have spiritual, religious, or secular beliefs and affiliations that might not align well with the philosophy and worldview underlying ABA practices.
59. Preservice behavior analysts understand the role of conversations with clients about their spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs.
60. Preservice behavior analysts will partner with clients and families when incorporating religious and spiritual beliefs in treatment goals and interventions.
61. Preservice behavior analysts can operationally define justice, equity, diversity, and inclusion.

Disrupting Inequitable Systems

62. Preservice behavior analysts demonstrate knowledge of the underrepresentation of clients from Black, Indigenous, and other nondominant, non-White backgrounds in applied behavior analysis.
63. Preservice behavior analysts can discuss how to actively use culturally responsive practices at all levels of the organizational structure and procedures.
64. Preservice behavior analysts actively promote a culture of accountability to the mission and vision statements of the organization using measurable goals with realistic timelines.
65. Preservice behavior analysts can discuss how to arrange environmental contingencies and meta-contingencies to shape their own behavior, the behavior of colleagues and organizations.
66. Preservice behavior analysts can list effective strategies to support and advocate for recruitment, admissions and hiring, supervision, and retention efforts in behavior analytic programs and agencies that increase visibility and representation from diverse groups and identities within the organization.
67. Preservice behavior analysts can list effective strategies to advocate for improved the diversity of advisory boards, vendors, and collaborators of the organization.
68. Preservice behavior analysts can discuss strategies to improve the diversity of organizational leadership (e.g., at least 1/3 of leadership from diverse backgrounds and identities) using strategies derived from organizational behavior management.
69. Preservice behavior analysts can discuss practices and advocacy strategies for disrupting health and education disparities affecting access to applied behavior analysis for clients from Black, Indigenous, and other nondominant, non-White backgrounds.

70. Preservice behavior analysts understand the behavioral approach for addressing bias and racism (e.g., behavior assessment, intervention, monitoring).
71. Preservice behavior analysts can list best practices for improving access to research participation for underserved populations (Black, Indigenous, People of Color, nondominant gender, sexual orientation, and religious groups, disabilities other than autism/intellectual and developmental disability).
72. Preservice behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.74. Preservice behavior analysts understand the importance of collaborating with organizational leadership on identifying why diverse staff and clients leave the organization and reflect on ways to improve retention and growth within the organization.

Appendix B

Demographic Questionnaire

You are being asked to participate in a research study: “Diversity, equity, justice and inclusion competencies for preservice behavior analysts: A modified Delphi study.” The purpose of this research is to develop a comprehensive checklist of diversity, justice, equity, and inclusion (DEJI) competencies that can be used in future curricular development and revision in association for Applied Behavior Analysis International (ABAI) verified course sequences to ensure adequate preparation of behavior analysts and development of relevant and meaningful instructional materials. Please complete the following demographic questioner to best describe your identity.

Which ethnicity do you most identify with? (Check all that apply.)

Hispanic and Latinx/Latina
Native Hawaiian and Pacific Islander
Middle Eastern and North African
Caucasian/White
American Indian and Alaska Native
African American or Black
Asian
Not Listed
Prefer not to answer

What is your age?

Open text

What is your gender?

Male
Female
Transgender Man
Transgender woman
Nonbinary
Nonconforming
Prefer Not to Answer

What is your current degree?

Masters
Ph.D.

How many years of experience you have as a BCBA?

Open text

What region of the US are you from?

Open text

Are you or were you in a leadership role advocating for DEJI in the field of ABA? (For example: member of the ABAI DEI committee, a member of University DEI task force, ABAI State Chapter leadership role, intramural or extramural grants with a focus that includes DEI)

Yes/no

Please indicate the number of years as in your leadership role:

Open text

Please name all peer-reviewed publications you have authored or co-authored related to DEJI topics (For example, racism, social justice, multiculturalism, culturally linguistic diversity, sexual orientation, gender identification, disabilities, spiritual or religious minority) (please enter NA/ if you don't have publications)

Open text

Primary population/area of specialization

Open text

Appendix C

Rating Potential Experts

Criteria	Does not meet (0)	Meets (1)	Exceeds (2)
Master's level			
BCBA			
Minimum of 3years of experience			
Currently practicing ABA in the US in good standing			
BIPOC practitioner			
Region in the US			
Documented professional or scholarly experience with DEJI (minimum of one peer review publications/ DEI presentation at the ABAI -DEI conference)			
Leadership role advocating for DEJI			
Total score			

Appendix D

Bibliography

- Alai-Rosales, S., Pritchett, M., Linden, A., Cunningham, I., & Syed, N. (2022). Be humble, learn, and care: Culturally responsive evidence-based practice. In J. B. Leaf, J. H. Cihon, J. L. Ferguson & M. J. Weiss (Eds.), *Handbook of applied behavior analysis interventions for autism* (pp. 151–167). Springer.
- Arango, A., & Lustig, N. (2023). Ignorance and cultural diversity: The ethical obligations of the behavior analyst. *Behavior Analysis in Practice*, *16*(1), 23–39.
<https://doi.org/10.1007/s40617-022-00701-z>
- Baires, N. A., Catrone, R., & Mayer, B. K. (2021, May 12). *On the importance of listening and intercultural communication for actions against racism*.
<https://doi.org/10.31234/osf.io/7qa4z>
- Barnes-Holmes, D., Murphy, A., Barnes-Holmes, Y., & Stewart, I. (2010). The implicit relational assessment procedure: exploring the impact of private versus public contexts and the response latency criterion on pro-white and anti-black stereotyping among White Irish individuals. *The Psychological Record*, *60*, 57–79.
<https://doi.org/10.1007/BF03395694>
- Beaulieu, L., Addington, J., & Almeida, D. (2018). Behavior analysts' training and practices regarding cultural diversity: The case for culturally competent care. *Behavior Analysis in Practice*, *12*, 557–575. <https://doi.org/10.1007/s40617-018-00313-6>
- Beene, N. (2019). Letter to the editor: One perspective on diversity in ABA. *Behavior Analysis in Practice*, *12*, 899–901. <https://doi.org/10.1007/s40617-019-00378-x>
- Benjamin, R. (2019). Assessing risk, automating racism. *Science*, *366*(6464), 421–422.
<https://doi.org/10.1126/science.aaz3873>.

- Capell, S. T., & Sevon, M. A. (2020). Applied behavior analysis within the African American community. In B. M. Connors & S. T. Capell (Eds.), *Multiculturalism and diversity in applied behavior analysis: Bridging theory and application* (pp. 29–46). Routledge.
- Capriotti, M. R., & Donaldson, J. M. (2022). "Why don't behavior analysts do something?" Behavior analysts' historical, present, and potential future actions on sexual and gender minority issues. *Journal of Applied Behavior Analysis, 55*(1), 19–39.
<https://doi.org/10.1002/jaba.884>
- Castro-Hostetler, M., Greenwald, A. E., & Lewon, M. (2021). Increasing access and quality of behavior-analytic services for the Latinx population. *Behavior and Social Issues, 30*, 13–38. <https://doi.org/10.1007/s42822-021-00064-0>
- Catagnus, R. M., Griffith, A. K., & Umphrey, B. J. (2021). Anger, fear, and sadness: How emotions could help us end a pandemic of racism. *Behavior Analysis in Practice, 15*, 1193–1204. <https://doi.org/10.1007/s40617-021-00581-9>
- Catrone, R. G., Baires, N. A., Martin, M. R., & Brown-Hollie, J. P. (2022). An intersectional examination of disability and race models in behavior-analytic practice. *Behavior and Social Issues, 1–30*. <https://doi.org/10.1007/s42822-022-00116-z>
- Catrone, R. G., & Koch, D. S. (2021). A behavioral approach to increasing perceptions of capability toward people with disabilities. *Behavior and Social Issues, 30*, 39–57.
<https://doi.org/10.1007/s42822-021-00059-x>
- Cihon, T. M., Walker, D., Kazaoka, K., & Pritchett, M. (2020). Ethics for cultural and community applications of behavioral science. In T. M. Cihon & M. A. Mattaini (Eds.), *Behavior science perspectives on culture and community. Behavior analysis: Theory,*

- research, and practice* (pp. 195–214). Springer. https://doi.org/10.1007/978-3-030-45421-0_9
- Čolić, M., Araiba, S., Lovelace, T. S., & Dababnah, S. (2021). Black caregivers' perspectives on racism in ASD services: Toward culturally responsive ABA practice. *Behavior Analysis in Practice, 15*, 1032–1041. <https://doi.org/10.1007/s40617-021-00577-5>
- Conners, B. M., & Capell, S. T. (Eds.). (2020). *Multiculturalism and diversity in applied behavior analysis: Bridging theory and application*. Routledge.
- Conners, B. M., Johnson, A., Duarte, J., Murriky, R., & Marks, K. (2019). Future directions of training and fieldwork in diversity issues in applied behavior analysis. *Behavior Analysis in Practice, 12*, 767–776. <https://doi.org/10.1007/s40617-019-00349-2>
- Crowe, B., & Drew, C. (2021). Orange is the new asylum: Incarceration of individuals with disabilities. *Behavior Analysis Practice, 14*, 387–395. <https://doi.org/10.1007/s40617-020-00533-9>
- de Carvalho, M. P., & de Rose, J. C. (2014). Understanding racial attitudes through the stimulus equivalence paradigm. *The Psychological Record, 64*, 527–536. <https://doi.org/10.1007/s40732-014-0049-4>
- Dennison, A., Lund, E. M., Brodhead, M. T., Mjia, L., Armenta, A., & Leal, J. (2019). Delivering home-supported applied behavior analysis therapies to culturally and linguistically diverse families. *Behavior Analysis in Practice, 12*, 887–898. <https://doi.org/10.1007/s40617-019-00374-1>
- Dixon, M. R., Branon, A., Nastally, B. L., & Mui, N. (2009). Examining prejudice towards Middle Eastern persons via a transformation of stimulus functions. *Behavior Analyst Today, 10*(2), 295–318. <https://doi-org.libproxy.uoregon.edu/10.1037/h0100672>

- Dixon, M. R., Dymond, S., Rehfeldt, R. A., Roche, B., & Zlomke, K. R. (2003). Terrorism and relational frame theory. *Behavior and Social Issues*, *12*, 129–147.
<https://doi.org/10.5210/bsi.v12i2.40>
- Dixon, M. R., Zlomke, K. M., & Rehfeldt, R. A. (2006). Restoring Americans' nonequivalent frames of terror: An application of relational frame theory. *Behavior Analyst Today*, *7*(3), 275–289. <https://doi-org.libproxy.uoregon.edu/10.1037/h0100153>
- Deochand, N., & Costello, M. S. (2022). Building a social justice framework for cultural and linguistic diversity in ABA. *Behavior Analysis in Practice*, *15*, 893–908.
<https://doi.org/10.1007/s40617-021-00659-4>
- Donovan, A., Lancaster, K., & Farris, V. (2022, February 17). *Using solutions of diversity, equity, and inclusion: The failing efforts of behavior analysis to uphold scientific, professional, and ethical standards*. <https://doi.org/10.17605/OSF.IO/DJ3NE>
- Fallon, L. M., O, K. B. V., & Sugai, G. (2012). Consideration of culture and context in school-wide positive behavior support: A review of current literature. *Journal of Positive Behavior Interventions*, *14*(4), 209–219. <https://doi-org.libproxy.uoregon.edu/10.1177/1098300712442242>
- Farmer, N., Gordon, T., Middleton, K. R., Brooks, A. T., & Wallen, G. R. (2021). Reigniting Dr. Martin Luther King's call to action: The role of the behavioral scientist in the movement for social justice and racial equity. *Translational Behavioral Medicine*, *12*(1), ibab108.
<https://doi.org/10.1093/tbm/ibab108>
- Ferguson, J. L., Cihon, J. H., Leaf, J. B., Van Meter, S. M., McEachin, J., & Leaf, R. (2019). Assessment of social validity trends in the Journal of Applied Behavior Analysis.

European Journal of Behavior Analysis, 20(1), 146–157.

<https://doi.org/10.1080/15021149.2018.1534771>.

Fong, E. H., Catagnus, R. M., Brodhead, M. T., Quigley, S., & Field, S. (2016). Developing the cultural awareness skills of behavior analysts. *Behavior Analysis in Practice*, 9, 84–94.

<https://doi.org/10.1007/s40617-016-0111-6>

Garcia, Y., Andrews, M., & Brothers, L. (2021). Perspective taking: A relational frame approach to understanding perspective-taking in compassion and social justice. In J. A. Sadavoy & M. L. Zube (Eds.), *A scientific framework for compassion and social justice* (pp. 217–224). Routledge.

Gatzunis, K. S., Edwards, K. Y., Rodriguez Diaz, A., Conners, B. M., & Weiss, M. J. (2022).

Cultural responsiveness framework in BCBA® supervision. *Behavior Analysis in Practice*, 15, 1373–1382. <https://doi.org/10.1007/s40617-022-00688-7>

Ghezzi, E. L., Funk, J. A., & Houmanfar, R.A. (2021). Restructuring law enforcement agencies to support prosocial values: A behavior-scientific model for addressing police brutality.

Behavior Analysis Practice, 15, 1184–1192. <https://doi.org/10.1007/s40617-020-00530-y>

Gingles, D., Watson-Thompson, J., Anderson-Carpenter, K. D., Tarbox, J., & Peterson, S. M.

(2022). Leading the charge: A look inside the behavior analysis in practice emergency series of publications on systemic racism and police brutality. *Behavior Analysis in Practice*, 15(4), 1015–1022.

Goodwyn, L. A. (2021). Prejudice and oppression: Addressing societal issues of prejudice and

oppression: How can behavior analysis help? In J. A. Sadavoy & M. L. Zube (Eds.), *A scientific framework for compassion and social justice* (pp. 225–233). Routledge.

- Graber, A., & Graber, J. (2023). Applied behavior analysis and the abolitionist neurodiversity critique: An ethical analysis. *Behavior Analysis in Practice*, 1–17.
<https://doi.org/10.1007/s40617-023-00780-6>
- Guerin, B. (2003). Combating prejudice and racism: New interventions from a functional analysis of racist language. *Journal of Community & Applied Social Psychology*, 13, 29–45. <https://psycnet.apa.org/doi/10.1002/casp.699>
- Guerin, B. (2005). Combating everyday racial discrimination without assuming "racists" or "racism": New intervention ideas from a contextual analysis. *Behavior and Social Issues*, 14(1), 46–70. <https://psycnet.apa.org/doi/10.5210/bsi.v14i1.120>
- Hauserman, N., Walen, S. R., & Behling, M. (1973). Reinforced racial integration in the first grade: A study in generalization. *Journal of Applied Behavior Analysis*, 6(2), 193–200.
<https://doi.org/10.1901/jaba.1973.6-193>
- Hayes, S. C., Hofmann, S. G., & Stanton, C. E. (2020). Process-based functional analysis can help behavioral science step up to novel challenges: COVID-19 as an example. *Journal of contextual behavioral science*, 18, 128–145. <https://doi.org/10.1016/j.jcbs.2020.08.009>
- Henry, K. K., Catagnus, R. M., Griffith, A. K., & Garcia, Y. A. (2021). Ending the school-to-prison pipeline: Perception and experience with zero-tolerance policies and interventions to address racial inequality. *Behavior Analysis in Practice*, 15, 1254–1263
<https://doi.org/10.1007/s40617-021-00634-z>
- Heward, W. L., Critchfield, T. S., Reed, D. D., Detrich, R., & Kimball, J. W. (2022). ABA from A to Z: Behavior science applied to 350 domains of socially significant behavior. *Perspectives on Behavior Science*, 45, 327–359. <https://doi.org/10.1007/s40614-022-00336-z>

- Hilton, J., Syed, N., Weiss, M. J., Tereshko, L., Marya, V., Marshall, K., Gatzunis, K., Russell, C., & Driscoll, N. (2021). Initiatives to address diversity, equity, and inclusion within a higher education ABA Department. *Behavior and Social Issues, 30*, 58–81.
<https://doi.org/10.1007/s42822-021-00082-y>
- Hughes Fong, E., & Sakurako Tanaka. (2013). Multicultural alliance of behavior analysis standards for cultural competence in behavior analysis. *International Journal of Behavioral Consultation & Therapy, 8*(2), 17–19. <https://doi.org.libproxy.uoregon.edu/10.1037/h0100970>
- Hugh-Pennie, A. K., Hernandez, M., Uwayo, M., Johnson, G., & Ross, D. (2021). Culturally relevant pedagogy and applied behavior analysis: Addressing educational disparities in PK-12 Schools. *Behavior Analysis in Practice, 15*, 1161–1169.
<https://doi.org/10.1007/s40617-021-00655-8>
- Jaramillo, C., & Nohelty, K. (2021). Guidance for behavior analysts in addressing racial implicit bias. *Behavior Analysis in Practice, 15*, 1170–1183. <https://doi.org/10.1007/s40617-021-00631-2>
- Jones, S. H., St. Peter, C. C., & Ruckle, M. M. (2020). Reporting of demographic variables in the Journal of Applied Behavior Analysis. *Journal of applied behavior analysis, 53*(3), 1304–1315. <https://doi.org/10.1002/jaba.722>
- Kelly, E. M., Greeny, K., Rosenberg, N., & Schwarz, I. (2021). When rules are not enough: Developing principles to guide ethical conduct. *Behavior Analysis in Practice, 14*, 491–498. <https://doi.org/10.1007/s40617-020-00515-x>
- Koffarnus, M. N., Kablinger, A. S., Kaplan, B. A., & Crill, E. M. (2021). Remotely administered incentive-based treatment for alcohol use disorder with participant-funded incentives is

- effective but less accessible to low-income participants. *Experimental and Clinical Psychopharmacology*, 29(5), 555–565. <https://doi.org/10.1037/pha0000503>
- Kolb, R. L., Robers, A. C., Brown, C., & McComas, J. J. (2022). Beyond cultural responsiveness: Applied behavior analysis through a lens of cultural humility. In T. W. Farmer, E. Talbott, K. McMaster, D. Lee, & T. C. Aceves (Eds.), *Handbook of special education research, volume I* (pp. 144–157). Routledge.
- Kornack, J., Cernius, A., & Persicke, A. (2019). The diversity is in the details: Unintentional language discrimination in the practice of applied behavior analysis. *Behavior Analysis in Practice*, 12, 879–886 (2019). <https://doi.org/10.1007/s40617-019-00377-y>
- LeBlanc, L. A., Taylor, B. A., & Marchese, N. V. (2020). The training experiences of behavior analysts: Compassionate care and therapeutic relationships with caregivers. *Behavior Analysis in Practice*, 13(2), 387–393. <https://doi.org/10.1007/s40617-019-00368-z>
- Leland, W., & Stockwell, A. (2019). A self-assessment tool for cultivating affirming practices with transgender and gender nonconforming (TGNC) clients, supervisees, students, and colleagues. *Behavior Analysis in Practice*, 12(4), 816–825. <https://doi.org/10.1007/s40617-019-00375-0>
- Leland, W., & Stockwell, A. (2021). Anti-oppressive restorative justice: Behavior analysis in alternatives to policing. *Behavior Analysis in Practice*, 15, 1232–1236. <https://doi.org/10.1007/s40617-021-00633-0>
- Levy, S., Siebold, A., Vaidya, J., Truchon, M., Dettmering, J., & Mittelman, C. (2021, June 7). *A look in the mirror: How the field of behavior analysis can become anti-racist*. <https://doi.org/10.17605/OSF.IO/KVHNM>

- Li, A. (2021). Solidarity: The role of non-black people of color in promoting racial equity. *Behavior Analysis in Practice, 14*, 549–553. <https://doi.org/10.1007/s40617-020-00498-9>
- Liao, Y., Dillenburger, K., & Buchanan, I. (2018). Does culture matter in ABA-based autism interventions? Parent and professional experiences in the UK and China. *European Journal of Behavior Analysis, 19*(1), 11–29. <https://doi-org.libproxy.uoregon.edu/10.1080/15021149.2017.1399657>
- Lovelace, T. S., Comis, M. P., Tabb, J. M., & Oshokoya, O. E. (2021). Missing from the narrative: A seven-decade scoping review of the inclusion of Black autistic women and girls in autism research. *Behavior Analysis in Practice, 15*, 1093–1105. <https://doi.org/10.1007/s40617-021-00654-9>
- Machado, M. A., & Lugo, A. M. (2021). A behavioral analysis of two strategies to eliminate racial bias in police use of Force. *Behavior Analysis in Practice, 15*, 1221–1231. <https://doi.org/10.1007/s40617-021-00551-1>
- Machalicek, W., Strickland-Cohen, K., Drew, C., & Cohen-Lissman, D. (2021). Sustaining personal activism: Behavior analysts as anti-racist accomplices. *Behavior Analysis in Practice, 15*, 1066–1073. <https://doi.org/10.1007/s40617-021-00580-w>
- Martinez, S., & Mahoney, A. (2022). Culturally sensitive behavior intervention materials: A tutorial for practicing behavior analysts. *Behavior Analysis in Practice, 15*, 516–540. <https://doi.org/10.1007/s40617-022-00703-x>
- Masiran, R., Ibrahim, N., Awang, H., & Lim, P. Y. (2020). Improving multicultural parenting program for children with emotional and behavioral problems: An integrated review. *Asian Journal of Psychiatry, 51*, 101851. <https://doi.org/10.1016/j.ajp.2019.101851>

- Mathur, S. K., & Rodriguez, K. A. (2021). Cultural responsiveness curriculum for behavior analysts: A meaningful step toward social justice. *Behavior Analysis in Practice*, *15*, 1023–1031. <https://doi.org/10.1007/s40617-021-00579-3>
- Matsuda, K., Garcia, Y., Catagnus, R., & Brandt, J. A. (2020). Can behavior analysis help us understand and reduce racism? A review of the current literature. *Behavior Analysis in Practice*, *13*, 336–347. <https://doi.org/10.1007/s40617-020-00411-4>
- Matsuda, K., Garcia, Y., Catagnus, R., & Brandt, J. A. (2021). Racism: Applying behavior analysis to dismantle racism: From ideas to action. In J. A. Sadavoy & M. L. Zube (Eds.), *A scientific framework for compassion and social justice* (pp. 239–246). Routledge.
- Melroe, K., & Robbins, J. (2020). Applied behavior analysis with Indigenous populations. In B. M. Conners & S. T. Capell (Eds.), *Multiculturalism and diversity in Applied Behavior Analysis: Bridging theory and application multiculturalism and diversity in applied behavior analysis* (pp. 57–68). Routledge.
- Miller, K. L., Cruz, A. R., & Ala'i-Rosales, S. (2019). Inherent tensions and possibilities: Behavior Analysis and cultural responsiveness. *Behavior and Social Issues*, *28*(1), 16–36. <https://psycnet.apa.org/doi/10.1007/s42822-019-00010-1>
- Mizael, T. M., Coelho, C. L., Rodrigues, W. C., & de Almeida, J. H. (2021). Racial issues and behavior analysis: Experiences and contributions from Brazil. *Behavior and Social Issues*, *30*, 495–513. <https://doi.org/10.1007/s42822-021-00071-1>
- Mizael, T. M., de Almeida, J. H., Silveira, C. C., & de Rose, C. (2016). Changing racial bias by transfer of functions in equivalence classes. *The Psychological Record*, *66*, 451–462. <https://doi.org/10.1007/s40732-016-0185-0>

- Morris, C., Goetz, D. B., & Gabriele-Black, K. (2021). The treatment of LGBTQ+ individuals in behavior-analytic publications: A Historical Review. *Behavior Analysis in Practice, 14*, 1179–1190. <https://doi.org/10.1007/s40617-020-00546-4>
- Morris, C., & Hollins, N. A. (2021). On the uncanny similarities between police brutality and client mistreatment. *Behavior Analysis in Practice, 15*, 1106–1111. <https://doi.org/10.1007/s40617-021-00576-6>
- Najdowski, A. C., Gharapetian, L., & Jewett, V. (2021). Toward the development of antiracist and multicultural graduate training programs in behavior analysis. *Behavior Analysis in Practice, 14*, 462–477. <https://doi.org/10.1007/s40617-020-00504-0>
- Nava, C. E., Fahmie, T. A., Jin, S., & Kumar, P. (2019). Evaluating the efficacy, preference, and cultural responsiveness of student-generated content in an undergraduate behavioral course. *Behavior Analysis Practice, 12*, 747–757. <https://doi.org/10.1007/s40617-019-00344-7>
- Neely, L., Gann, C., Castro-Villarreal, F., & Villarreal, V. (2020). Preliminary findings of culturally responsive consultation with educators. *Behavior Analysis in Practice, 13*, 270–281. <https://doi.org/10.1007/s40617-019-00393-y>
- Olsen, P. M., & Kelly, M. P. (2020). Applied behavior analysis with Arab-Muslim populations: The importance of cultural awareness. In B. M. Connors & S. T. Capell (Eds.), *Multiculturalism and diversity in applied behavior analysis: Bridging theory and application* (pp. 140-163). Taylor & Francis/Routledge.
- Ortiz, S. M., Joseph, M. A., & Deshais, M. A. (2022). Increasing diversity content in graduate coursework: A pilot investigation. *Behavior Analysis in Practice, 16*, 222–231. <https://doi.org/10.1007/s40617-022-00714-8>

- Parks, N., & Kirby, B. (2021). The function of the police force: A behavior-analytic review of the history of how policing in America came to be. *Behavior Analysis in Practice*, *15*, 1205–1212. <https://doi.org/10.1007/s40617-021-00568-6>
- Pavlacic, J. M., Kellum, K. K., & Schulenberg, S. E. (2021). Advocating for the use of restorative justice practices: Examining the overlap between restorative justice and behavior analysis. *Behavior Analysis Practice*, *15*, 1237–1246. <https://doi.org/10.1007/s40617-021-00632-1>
- Plessas, A., McCormack, J., & Kafantaris, I. (2019). The potential role of applied behavior analysis in the cultural environment of Māori mental health. *Behavior Analysis in Practice*, *12*, 854–868. <https://doi.org/10.1007/s40617-019-00359-0>
- Power, P. M., Harte, C., Barnes-Holmes, D., & Barnes-Holmes, Y. (2017). Exploring racial bias in a country with a recent history of immigration of Black Africans. *The Psychological Record*, *67*, 365–375. <https://doi.org/10.1007/s40732-017-0223-6>
- Power, P. M., Harte, C., Barnes-Holmes, D., & Barnes-Holmes, Y. (2017). Combining the implicit relational assessment procedure and the recording of event related potentials in the analysis of racial bias: A preliminary study. *The Psychological Record*, *67*, 499–506 (2017). <https://doi.org/10.1007/s40732-017-0252-1>
- Pritchett, M., Ala'i-Rosales, S., Cruz, A. R., & Cihon, T. M. (2021). Social justice is the spirit and aim of an applied science of human behavior: Moving from colonial to participatory research practices. *Behavior Analysis in Practice*, *15*, 1074–1092. <https://doi.org/10.1007/s40617-021-00591-7>
- Sadavoy, J. A., & Zube, M. L. (Eds.). (2021). *A scientific framework for compassion and social justice: Lessons in applied behavior analysis*. Routledge.

- Schwartz, I. S., & Kelly, E. M. (2021). Quality of life for people with disabilities: Why applied behavior analysts should consider this a primary dependent variable. *Research and Practice for Persons with Severe Disabilities*, 46(3), 159–172.
<https://doi.org/10.1177/15407969211033629>
- Sereno, M., Quigley, J., & Smith, G. S. (2021). A systematic review of the use of the implicit relational assessment procedure (IRAP) to assess implicit biases held by professionals toward client populations. *Research on Social Work Practice*, 32(1), 73–91.
<https://doi.org/10.1177/10497315211009597>
- [Shogren, K. A. \(2011\). Culture and self-determination: A synthesis of the literature and directions for future research and practice. *Career Development for Exceptional Individuals*, 34\(2\), 115–127. <https://doi.org/10.1177/0885728811398271>](#)
- Silverman, K., Holtyn, A. F., & Subramaniam, S. (2018). Behavior analysts in the war on poverty: Developing an operant antipoverty program. *Experimental and Clinical Psychopharmacology*, 26(6), 515–524. <https://doi.org/10.1037/pha0000230>
- Silverman, K., Holtyn, A. F., & Toegel, F. (2019). The utility of operant conditioning to address poverty and drug addiction. *Perspectives on Behavior Science*, 42, 525–546.
<https://doi.org/10.1007/s40614-019-00203-4>
- Sivaraman, M., & Fahmie, T. A. (2020). A systematic review of cultural adaptations in the global application of ABA-based telehealth services. *Journal of Applied Behavior Analysis*, 53(4), 1838–1855. <https://doi.org/10.1002/jaba.763>
- Snodgrass, M. R., Chung, M. Y., Meadan-Kaplansky, H., & Halle, J. W. (2018). Social validity in single-case research: A systematic literature review of prevalence and application.

Research in Developmental Disabilities, 74, 160–173.

<https://doi.org/10.1016/j.ridd.2018.01.007>.

Sullivan-Kirby, M. (2019). Section 6.0: Behavior analysts' ethical responsibility to the profession of behavior analysis and section 7.0: Behavior analysts' ethical responsibility to colleagues. In A. Beirne & J. A. Sadavoy (Eds.), *Understanding ethics in applied behavior analysis* (pp. 148–164). Routledge.

Syed, N. Y., Mellon, L., & Kristiansen, S. (2023). Equity, diversity, inclusion, and accessibility in research. In J. C. David, N. Y. Syed, M. T. Brodhead & S. P. Quigley (Eds.), *Research ethics in behavior analysis* (pp. 63-86). Academic Press.

Todorov, J. C., & Freitas Lemos, R. (2020). Applying behavioral science to large-scale social changes. In T. M. Cihon & M. A. Mattaini (Eds.), *Behavior science perspectives on culture and community. Behavior analysis: Theory, research, and practice*. Springer.
https://doi.org/10.1007/978-3-030-45421-0_8

Vandenberghe, L. (2008). Culture-sensitive functional analytic psychotherapy. *The Behavior Analyst*, 31, 67–79. <https://doi.org/10.1007/BF03392162>

Waits, J. A., Choi, K., & Gilroy, S. P. (2022). A systematic review and reflection on the dimensions of diversity represented in behavior analytic research. *Review Journal of Autism and Developmental Disorders*, 1–17. <https://doi.org/10.1007/s40489-022-00312-y>

Wang, Y., Kang, S., Ramirez, J., & Tarbox, J. (2019). Multilingual diversity in the field of applied behavior analysis and autism: A brief review and discussion of future directions. *Behavior Analysis in Practice*, 12, 795–804. <https://doi.org/10.1007/s40617-019-00382-1>

Watson-Thompson, J., Francisco, V. T., & Anderson-Carpenter, K. D. (2020). A behavioral-community approach to community health and development: Tools for collaborative

- action. In T. M. Cihon & M. A. Mattaini (Eds.), *Behavior science perspectives on culture and community* (pp. 333–356). Springer.
- Weiss, M. J. (2021). Social justice: An overdue and urgent topic for behavior analysis. In J. A. Sadavoy & M. L. Zube (Eds.), *A scientific framework for compassion and social justice* (pp. 268–273). Routledge.
- Weiss, M. J., Gatzunis, K., & Aljohani, W. (2020). How to integrate multiculturalism and diversity sensitivity into the training and ethical skill set of behavior analysts. In B. M. Connors & S. T. Capell (Eds.), *Multiculturalism and diversity in applied behavior analysis* (pp. 167–179). Routledge.
- Williams, C. M. (2021). Cultural responsiveness: The development and implications of cultural responsive practices to behavior change programs. In J. A. Sadavoy & M. L. Zube (Eds.), *A scientific framework for compassion and social justice* (pp. 84–93). Routledge.
- Yingling, M. E., Ruther, M. H., & Dubuque, E. M. (2022). Trends in geographic access to Board Certified Behavior Analysts among children with autism spectrum disorder, 2018–2021. *Journal of Autism and Developmental Disorders*, 52(12), 5483–5490.
<https://doi.org/10.1007/s10803-021-05402-0>
- Zarcone, J., Brodhead, M., & Tarbox, J. (2019). Beyond a call to action: An introduction to the special issue on diversity and equity in the practice of behavior analysis. *Behavior Analysis in Practice*, 12, 741–742. <https://doi.org/10.1007/s40617-019-00390-1>

Appendix E

Final Competencies List That Reached Consensus

Ethics and Values

1. Preservice behavior analysts are knowledgeable and remain current in the ethical code, and standards of the profession published by our professional certification and licensure bodies.
2. Pre-service behavior analysts demonstrate applications of community-based participatory research (research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process) practices in behavior analytic research that prevent exploitation and harm to vulnerable populations.
3. Preservice behavior analysts demonstrate understanding of the ways in which their personal and professional values and implicit bias may conflict with or accommodate the needs of diverse clients.
4. Based on their self-identified personal and professional limitations, preservice behavior analysts demonstrate when and how to make appropriate referrals to other behavior analysts or other professionals with relevant experience and specialized knowledge of the client's culture or the behavior analyst seeks appropriate supervision.
5. Preservice behavior analysts demonstrate practices allowing client assent and consent to assessment and intervention for all populations including individuals limited language proficiency or nonverbal individuals..
6. Pre-service behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.
7. Pre-service behavior analysts can discuss the Behavior Analyst Certification Board (BACB) ethical code and identify the gaps related to diversity, equity, justice, and inclusion that still need to be addressed.
8. Pre-service behavior analysts demonstrate incorporation of client voice in social validity measures (e.g., questionnaires, interview, behavioral observation measures including assessment of client affect and indices of happiness) used in clinical practice and research.
9. Pre-service behavior analysts demonstrate use of client centered practices to increase client engagement during assessment, intervention, and progress monitoring.
10. Pre-service behavior analysts prioritize client outcomes and wellbeing over personal and/or professional gains.
11. Pre-service behavior analysts demonstrate how to plan for and effectively communicate during ethical dilemmas related to differences in opinions, values, agendas, histories, etc.
12. Pre-service behavior analysts demonstrate culturally responsive ethical decision-making skills during clinical practice and research.

13. Preservice behavior analysts can identify ethical dilemmas that arise in collaboration with clients, families and other professionals from nondominant cultures or cultures different than their own.

Added competency

14. Preservice behavior analysts seek education and continue professional development related to cultural responsiveness and cultural humility.

Awareness of Other Cultures and Cultural Humility

15. Pre-service behavior analysts demonstrate knowledge about white supremacy and the structural violence of racism that Black, Indigenous and other people of color experience in the United States.
16. Pre-service behavior analysts demonstrate knowledge of systemic oppression of individuals with disability, especially at the intersection of disability and race/ethnicity.
17. Preservice behavior analysts document knowledge of social determinants of health (how these social construct impact one's health outcomes) and behavior including racism, poverty and ability status.
18. Pre-service behavior analysts demonstrate knowledge of anti-racist and anti-bias actions with various identities and cultures.
19. Pre-service behavior analysts demonstrate knowledge about the history of measurement development and how it has been historically used to harm people with disabilities and people of color (IQ, adaptive behavior, mental health).
20. Pre-service behavior analysts demonstrate understanding of acculturation (the assimilation to a different culture, typically the dominant one) processes, intergenerational dynamics, and the challenges faced by recent immigrants to a culture different than their home culture.
21. Pre-service behavior analysts recognize the great diversity among groups (e.g., there is great diversity among African Americans, individuals who identify as sexual and gender minority) and demonstrate cultural humility in determining their client's values and preferences and worldview.
22. Pre-service behavior analysts use authentic engagement and active listening, self-reflection practices and an approach of cultural humility when working with clients, and supervisees with different cultural or sexual identity other than their own to disrupt potential power imbalances and identify shared values.
23. Preservice behavior analysts advocate for the provision of information, referrals, and services in the language appropriate to the client, which may include the use of interpreters.
24. Pre-service behavior analysts demonstrate awareness of the legal, ethical, and practical issues related to language translation and the appropriate use of interpreters in assessment and intervention for non-English speaking clients.

Cultural Awareness and Reflective Practices

25. Pre-service behavior analysts demonstrate self-awareness of their own personal, cultural values and beliefs as one way of appreciating the importance of multicultural, intersectional identities in the lives of people.
26. Pre-service behavior analysts acknowledge and reflect on the sources of implicit and explicit bias, and practice ways to counter these biases.
27. Pre-service behavior analysts acknowledge and reflect on the historical and cultural context different clients and colleagues bring to the team, particularly those systematically excluded from research and intervention.
28. Pre-service behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values and practices and demonstrate practices that minimize their imposition of these beliefs, values and practices onto their clients.
29. Pre-service behavior analysts self-identify their own personal experiences and background that may influence their beliefs, values and practices and demonstrate practices that minimize their imposition of these beliefs, values and practices onto their clients.

Cross-Cultural Applications with Clients and Their Families of Different Racial and Ethnic Backgrounds, with Clients and Their Families who HAVE Different Spiritual and Religious Backgrounds, with Clients and Their Families who Speak Non-Dominant Language, and with Clients who Identify as Sexual and Gender Minority:

30. Preservice behavior analysts use appropriate culturally sensitive methodological approaches, skills, and techniques that reflect the professionals' understanding of the role of culture, spirituality, socioeconomic class, race, ethnicity, gender..
31. Pre-service behavior analysts can identify potentially problematic items on commonly used standardized assessment tools in ABA for culturally diverse clients.
32. Pre-service behavior analysts demonstrate effective use of non-colonial strategies in the practice of applied behavior analysis including the use of active participation in the development of treatment goals and services by clients and interested parties.
33. Pre-service behavior analysts demonstrate ability to effectively convey assessment results to families from different cultural backgrounds.
34. Preservice behavior analysts demonstrate the use of instructional/intervention materials that validate and consider clients' cultural, linguistic, spiritual, racial, gender identities and ability status.
35. Preservice behavior analysts demonstrate ability to construct culturally relevant assessment targets, intervention goals, and procedures in collaboration with clients from nondominant cultures or cultures different than their own.
36. Pre-service behavior analysts recognize the great diversity among groups (e.g. there is great diversity among Asian Americans, LGBTQAI+) and demonstrate cultural humility (self-reflection and self-critique whereby the individual learns about another's culture,

- but one starts with an examination of her/his own beliefs and cultural identities) in determining their client's values and preferences and worldview.
37. When providing behavior analytic services to a client from a cultural background different than their own, the pre-service behavior analyst recognizes that the client's beliefs about the variables to human behavior and learning might differ from their own.
 38. When providing behavior analytic services to a client from a cultural background different than their own, the pre-service behavior analyst can identify when misunderstandings occur due to intercultural communication breakdown.
 39. The pre-service behavior analyst understands that a client from a cultural background different than their own may perceive the use of language differently and understands the role of this difference in sociopragmatic rules in communication breakdown. Examples include requests or topics that are culturally inappropriate for one of the parties given the context or use of personal address, bodily distance, nonverbal communication seen as disrespectful or non-engaged by one of the parties.
 40. Pre-service behavior analyst understands the practice and role of cultural brokerage (bridging, linking, or mediating between groups or persons of differing cultural backgrounds for the purpose of reducing conflict or producing change) in easing culturally based misunderstandings and improving communication when the behavior analyst is from a cultural background different from their client.
 41. Preservice behavior analysts will be attentive and accommodate diverse values, beliefs, and fears that could affect intervention participation for clients' and colleagues from different backgrounds.
 42. Pre-service behavior analysts demonstrate how to plan for and effectively communicate during situations related to differences in opinions, values, agendas, histories, etc.
 43. Pre-service behavior analysts are aware of potential power dynamics and information inequities that may be present when clients and colleagues are from different backgrounds and identities than their own.
 44. Pre-service behavior analysts incorporate two-way communication and feedback loops during intervention and research activities.
 45. Pre-service behavior analysts demonstrate knowledge of how to extend ABA interventions to bilingual clients from different cultural backgrounds other than their own.
 46. Pre-service behavior analysts recognize the great diversity among groups (e.g. there is great diversity among Asian Americans, LGBTQAI+) and demonstrate cultural humility (self-reflection and self-critique whereby the individual learns about another's culture, but one starts with an examination of her/his own beliefs and cultural identities) in determining their client's values and preferences and worldview.
 47. Pre-service behavior analysts can identify resources for educating clients, supervisees, and colleagues about inclusive behaviors towards historically marginalized communities (i.e., LGBTQAI+ communities).

48. Pre-service behavior analysts understand when to appropriately seek cultural brokerage (bridging, linking, or mediating between groups or persons of differing cultural backgrounds for the purpose of reducing conflict or producing change), professional development or when to refer to other behavior analysts when providing ABA services to clients with different spiritual, religious, and secular beliefs and affiliations, different race and ethnicity, different gender identity, than their own.

Cross-Cultural Application with Clients Who Identify as Sexual or Gender Minority

49. Pre-service behavior analysts demonstrate use of identity affirming practices with transgender and gender non-conforming (TGNC) clients, supervisees, and colleagues.
50. Pre-service behavior analysts demonstrate understanding that people have diverse sexual orientations, gender identities and gender expressions that intersect with other identities and contexts.
51. Pre-service behavior analysts examine their own bias, attitudes about, and knowledge of sexual orientation, gender identity, and gender expression may impact their practices in ABA, particularly the services they provide to LGBTQAI+ clients.
52. Pre-service behavior analysts demonstrate understanding that gender is nonbinary with a range of gender identities and expressions and that gender identity may not align with assigned sex at birth.
53. Pre-service behavior analysts know how to adapt interventions and use culturally responsive teaching and training strategies when working with clients and families who identify as a sexual or gender minority.
54. Pre-service behavior analysts know how to identify and address communication errors that may occur when working with clients and colleagues who identify as a sexual or gender minority.
55. Pre-service behavior analysts can list practices to affirm the identity and inclusion of sexual minority clients and communities during all aspects of research (e.g., providing a range of demographic options in surveys).

Cultural Application with Clients from Different Religious and Spiritual Backgrounds

56. Pre-service behavior analysts understand that clients may have spiritual, religious, or secular beliefs and affiliations that might not align well with the philosophy and worldview underlying ABA practices.
57. Preservice behavior analysts demonstrate how to glean information about clients' spiritual, religious, and secular beliefs and affiliations in understanding their values and beliefs..
58. Pre-service behavior analysts will partner with clients and families when incorporating religious and spiritual beliefs in treatment goals and interventions.
59. Pre-service behavior analysts can operationally define justice, equity, diversity, and inclusion.

Disrupting Inequitable Systems

60. Pre-service behavior analysts demonstrate knowledge of the underrepresentation of clients from Black, Indigenous, and other non-dominant, non-white backgrounds in applied behavior analysis.
 61. Pre-service behavior analysts can discuss how to actively use culturally responsive practices at all levels of the organizational structure and procedures.
 62. Pre-service behavior analysts actively promote a culture of accountability to the mission and vision statements of the organization using measurable goals with realistic timelines.
 63. Pre-service behavior analysts can discuss how to arrange environmental contingencies and meta-contingencies to shape their own behavior, the behavior of colleagues and organizations.
 64. Pre-service behavior analysts can list effective strategies to support and advocate for recruitment, admissions and hiring, supervision, and retention efforts in behavior analytic programs and agencies that increase visibility and representation from diverse groups and identities within the organization.
 65. Pre-service behavior analysts can list effective strategies to advocate for improved the diversity of advisory boards, vendors, and collaborators of the organization.
 66. Pre-service behavior analysts can discuss strategies to improve the diversity of organizational leadership (e.g., at least 1/3 of leadership from diverse backgrounds and identities) using strategies derived from organizational behavior management.
 67. Pre-service behavior analysts can discuss practices and advocacy strategies for disrupting health and education disparities affecting access to applied behavior analysis for clients from Black, Indigenous, and other non-dominant, non-white backgrounds.
 68. Pre-service behavior analysts understand the behavioral approach for addressing bias and racism (e.g., behavior assessment, intervention, monitoring).
 69. Pre-service behavior analysts can list ways to effectively advocate for change related to diversity, equity, and inclusion within organizations.
- Added Competency
70. Preservice behavior analysts identify social and economic barriers that impact access to care and work to limit these barriers in clinical practice.