

COMPASSION SKILLS IN APPLIED BEHAVIOR ANALYSIS: A SCOPING REVIEW FOR CLINICAL PRACTICE

HABILIDADES DE COMPAIXÃO NA ANÁLISE DO COMPORTAMENTO APLICADA: UMA REVISÃO DE ESCOPO PARA A PRÁTICA CLÍNICA

HABILIDADES DE COMPASIÓN EN EL ANÁLISIS DEL COMPORTAMIENTO APLICADO: UNA REVISIÓN DE ALCANCE PARA LA PRÁCTICA CLÍNICA



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ABSTRACT

Applied Behavior Analysis (ABA) has undergone significant evolution in recent years, transcending its traditional focus on behavioral modification to incorporate a humanized and compassionate dimension. This chapter explores the growing relevance of compassion as an essential component in ABA practice, especially in the treatment of individuals with Autism Spectrum Disorder (ASD). We present the findings of a detailed scoping review, which aimed to identify and map concepts and gaps in the compassion skills necessary for behavior analysts. Utilizing the PRISMA-ScR protocol and the PCC strategy, the review included 13 studies published between 2020 and 2024, predominantly from international literature. The results highlight an increase in publications on the topic since 2023, revealing three central themes: empathy development, mindfulness practices, and emotional self-regulation. The discussion delves into the implications of these findings for training and clinical practice, the need for specific training, and the ethical issues involved. We conclude that the integration of compassion not only enriches ABA but also makes it more effective, socially valid, and client-centered, pointing towards future directions for research and professional development.

Keywords: Compassion. ABA. Skills. Scoping Review. Autism.

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RESUMO

A Análise do Comportamento Aplicada (ABA) tem passado por uma evolução significativa nos últimos anos, transcendendo seu foco tradicional na modificação do comportamento para incorporar uma dimensão humanizada e compassiva. Este capítulo explora a crescente relevância da compaixão como componente essencial na prática da ABA, especialmente no tratamento de indivíduos com Transtorno do Espectro Autista (TEA). Apresentamos os achados de uma revisão de escopo detalhada, que teve como objetivo identificar e mapear conceitos e lacunas nas habilidades de compaixão necessárias aos analistas do comportamento. Utilizando o protocolo PRISMA-ScR e a estratégia PCC, a revisão incluiu 13 estudos publicados entre 2020 e 2024, predominantemente da literatura internacional. Os resultados evidenciam um aumento nas publicações sobre o tema a partir de 2023, revelando três eixos centrais: desenvolvimento da empatia, práticas de mindfulness (atenção plena) e autorregulação emocional. A discussão aprofunda as implicações desses achados para a formação e a prática clínica, a necessidade de capacitação específica e as questões éticas envolvidas. Conclui-se que a integração da compaixão não apenas enriquece a ABA, mas também a torna mais eficaz, socialmente válida e centrada no cliente, apontando para direções futuras de pesquisa e desenvolvimento profissional.

Palavras-chave: Compaixão. ABA. Habilidades. Revisão de Escopo. Autismo.

RESUMEN

El Análisis del Comportamiento Aplicado (ABA) ha experimentado una evolución significativa en los últimos años, trascendiendo su enfoque tradicional en la modificación de la conducta para incorporar una dimensión humanizada y compasiva. Este capítulo explora la creciente relevancia de la compasión como componente esencial en la práctica del ABA, especialmente en el tratamiento de personas con Trastorno del Espectro Autista (TEA). Presentamos los hallazgos de una revisión de alcance detallada, cuyo objetivo fue identificar y mapear conceptos y vacíos relacionados con las habilidades de compasión necesarias para los analistas de conducta. Utilizando el protocolo PRISMA-ScR y la estrategia PCC, la revisión incluyó 13 estudios publicados entre 2020 y 2024, predominantemente de la literatura internacional. Los resultados muestran un aumento en las publicaciones sobre el tema desde 2023, revelando tres ejes centrales: desarrollo de la empatía, prácticas de mindfulness (atención plena) y autorregulación emocional. La discusión profundiza en las implicaciones de estos hallazgos para la formación y la práctica clínica, la necesidad de capacitación específica y las cuestiones éticas involucradas. Se concluye que la integración de la compasión no solo enriquece el ABA, sino que también lo hace más eficaz, socialmente válido y centrado en el cliente, señalando futuras direcciones para la investigación y el desarrollo profesional.

Palabras clave: Compasión. ABA. Habilidades. Revisión de Alcance. Autismo.

1 INTRODUCTION

Applied Behavior Analysis (ABA) has consolidated itself over the decades as a robust and effective science in promoting socially significant behavioral changes. Originating from the principles of radical behaviorism, ABA is distinguished by its empirical approach, focusing on the observation and measurement of behaviors to develop evidence-based interventions. Its application has been notably successful in various areas, particularly in the treatment of Autism Spectrum Disorder (ASD), where it is globally recognized as a gold-standard intervention (Benitez et al., 2021). ABA programs for individuals with ASD cover a wide range of skills, from communication and language to self-management and academic abilities, always with the primary goal of promoting quality of life, dignity, and respect for its clients and their families (Barcelos et al., 2020).

However, the evolution of ABA has not been limited to the refinement of its techniques and methodologies. In recent years, there has been increasing scientific and professional interest in dimensions that complement technical rigor: humanized practices. This movement has driven the inclusion and appreciation of concepts such as compassion, empathy, and relational skills at the core of analytical-behavioral practice. Compassion, in particular, emerges as an essential dimension, capable of shaping interventions that are not only effective but also responsive, collaborative, and profoundly positive in the lives of consumers of ABA services (Penney et al., 2023).

Traditionally, ABA was defined by its seven fundamental dimensions, as proposed by Baer, Wolf, and Risley in 1968: analytic, behavioral, applied, technological, conceptual, effective, and generality. These dimensions provided the framework for the work of behavior analysts worldwide, ensuring the systematicity and empirical basis of their interventions (Gitimoghaddam et al., 2022). Nevertheless, the increasing complexity of challenges faced by individuals with ASD and their families, coupled with greater awareness of the importance of well-being and the quality of the therapeutic relationship, has led to a re-evaluation of these foundations. The proposal to include compassion as the "eighth dimension" of ABA (Penney et al., 2023) reflects this paradigm shift, seeking a re-signification of the science that further values the human aspect of care.

The academic and professional journey of many behavior analysts, including my own experience in a clinic specializing in autism, confronts us daily with the need to go beyond the mere application of protocols. It is imperative to develop and enhance skills that strengthen therapeutic relationships, promote active listening, and ensure dignified and respectful treatment. The demand for ABA services is on the rise, and with it, the

responsibility to ensure that service provision not only achieves behavioral outcomes but also nurtures trust, collaboration, and the well-being of all involved (Silbaugh, 2023).

Despite the growing importance of the topic, the analytical-behavioral literature still shows a scarcity of studies and precise definitions of compassion from a behavioral perspective (Taylor et al., 2018). It is in this context that the present investigation is inserted, whose central objective is to identify and map the existing gaps and concepts regarding the compassion skills necessary for the behavior analyst's practice. Using the scoping review methodology, this chapter aims to provide a qualitative and quantitative overview of the results, exploring how compassion can be operationalized, trained, and integrated ethically and effectively into ABA practice.

This chapter is justified by the need to consolidate research related to ABA's potential for effective compassionate care in humanized therapeutic relationships. At the same time, it seeks to contribute to the strengthening and dissemination of compassionate strategies and practices, aligned with the highest ethical and scientific standards of our science. A deep understanding of these skills not only improves client and family engagement in treatment but also mitigates the risks of professional burnout and promotes a healthier and more productive care environment for all.

2 THE EVOLUTION OF COMPASSION IN APPLIED BEHAVIOR ANALYSIS

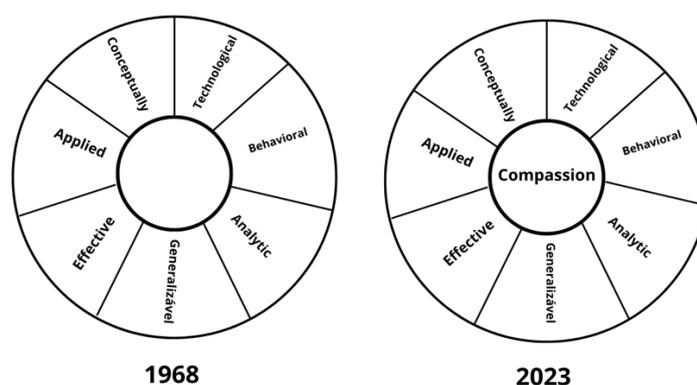
The discussion about compassion in ABA is not a recent phenomenon but a conceptual evolution that has gained prominence in recent decades. Although the term "compassion" may have been implicitly understood and practiced by behavior analysts since the beginning of the science, its explication and formalization as a central element of clinical and research practice represent a significant advancement. This topic seeks to trace the trajectory of this evolution, contextualizing compassion within the foundations of ABA and exploring its growing relevance.

The foundational literature in ABA, from the seminal work of Baer, Wolf, and Risley in 1968, has always carried an underlying concern for client well-being and the social relevance of interventions. The seven dimensions of ABA, although focused on technical and methodological aspects such as behavior analysis and technological application, implied a commitment to the individual and the community. The "applied" dimension, for example, emphasizes that behavior must have social relevance for the individual. This inherent concern for the "other" and for the positive impact on the client's life can be interpreted as an incipient form of compassion.

In 1987, Baer et al. revisited the seven dimensions, and on that occasion, explicitly reinforced the importance of social validity and practices that valued consumer interest. This update was a milestone, as it began to pave the way for greater awareness of the need to adapt procedures to cultural contexts and individual needs, going beyond simple behavioral modification. Penney et al. (2023) highlight that, since then, there has been a clear recommendation for a greater focus on compassionate ABA, suggesting the need for procedure modification to suit cultural contexts, i.e., carefully detailing the importance of social validity measures.

Figure 1

Progression of compassion within the dimensions of ABA



Source: Developed by Aleixo, 2025, based on Penney et al. 2023.

Compassion, in the context of health, is not a new concept. Its philosophical and psychological roots date back centuries, being a subject of reflection and study in various cultures and disciplines (Gilberto, 2020 as cited in Melton et al., 2023). In ABA, Pavlova et al. (2022, as cited in Rodríguez et al., 2023) describe it as the act of recognizing another's suffering and feeling compelled to alleviate that suffering. This definition transcends mere empathy, which is the ability to understand or feel another's emotions, by adding an active component of action to mitigate pain. Taylor et al. (2019, as cited in Penney et al., 2023) characterized compassionate ABA as the fusion between understanding empathy and action, defining compassion as the behavior of demonstrating empathy to promote the well-being of individuals, seeking through actions to prevent or mitigate suffering.

This deeper understanding of compassion reveals that it is not just a feeling, but a set of observable and measurable behaviors, which makes it perfectly aligned with the principles of ABA. From this perspective, compassion manifests itself in concrete actions aimed at alleviating suffering and promoting well-being, becoming a crucial therapeutic skill. Sousa et

al. (2020) already argued that compassionate therapeutic skill could be interpreted as a valuable attitude in the face of suffering, which includes not only welcoming and sharing the pain of others but also performing positive and collaborative solidarity actions.

The growing appreciation of humanized practices in ABA is also intrinsically linked to a global movement for greater dignity and respect in all areas of health and care. In the context of ASD, where interventions are often long-term and involve the family as a fundamental partner, the quality of the therapeutic relationship becomes a determining factor for treatment success. The absence of positive collaboration and compassionate care can lead to adverse or harmful outcomes for consumers (Cox, 2019 as cited in Browman et al., 2021).

The Ethical Code of Conduct for Behavior Analysts (BACB®), updated in 2020, consolidated this perspective by clarifying four basic principles that serve as a comprehensive guide for the ethical standards of the profession. Among them, the principle of "treating others with dignity, compassion, and respect" (Rohrer et al., 2022) stands out. This is a formal recognition of the importance of compassion, not as a mere "extra," but as a fundamental pillar of the behavior analyst's ethical practice. The other principles—promoting the well-being of individuals, acting with integrity, and ensuring one's own competence—also directly intertwine with compassionate practice, as a competent and integral professional will always seek the client's well-being with dignity.

Penney et al.'s (2023) proposal to consider compassion as the "eighth dimension" of ABA is a direct reflection of this evolution. They argue that, while the seven original dimensions remain fundamental, they are no longer sufficient to comprehensively describe contemporary high-quality ABA practice. The inclusion of compassion aims to recontextualize ABA to promote collaborative and positive practices, ensuring both quality of life and proximity to consumers. This perspective aligns with what other renowned behaviorist researchers have emphatically stated: ABA is philosophically a compassionate science (Rodríguez et al., 2023).

The integration of humanized behaviors, such as compassion and interpersonal competencies (often called "soft skills"), has become an important objective for the growth of ABA science (LeBlanc et al., 2020 as cited in Friedman et al., 2024; Rohrer et al., 2021). Although the field of ABA has established a robust evidence base regarding the "exact sciences" of analytical and applied principles, the need to develop these relational skills is undeniable. Initial results from various studies already suggest that compassionate care and an empathetic response are related to better quality of care, greater client satisfaction and

comfort, and improved physical and mental health (Beach et al., 2006; Beck et al., 2002; Bonvicini et al., 2009; Allen & Warzak, 2000 as cited in Rohrer et al., 2022).

The current concern for the ABA scientific community is that the lack of knowledge and training on compassionate skills can generate a series of uncomfortable behaviors for the client, hindering the construction of the therapeutic bond (Denegri et al., 2023). This gap not only affects adherence to treatment but can also compromise the effectiveness of interventions. Sher et al. (2024) reinforce that the ethical mindset in ABA must go beyond technical competencies, reflecting on how social validity and compassion practices are conducted towards the end consumer.

In summary, the evolution of ABA towards a more compassionate practice is not a fleeting trend, but a movement intrinsic to its own philosophy and the contemporary challenges of clinical practice. Understanding the definitions of compassion and its associated skills makes ABA practice more acceptable, improves consumers' quality of life, promotes a good therapeutic relationship, increases effectiveness and social validity, and enhances interpersonal relationships among professionals in the area (Rodríguez et al., 2023). It is a path that benefits not only clients but also professionals themselves, who find greater satisfaction and purpose in a more holistic and human approach.

3 METHODOLOGY: A SCOPING REVIEW ON COMPASSION SKILLS

To address the issue of the scarcity of research on compassion within a behavioral framework and to identify existing gaps, the present investigation adopted the scoping review methodology. This type of review is an essential tool for mapping and synthesizing existing knowledge in a specific area, especially when the topic is relatively new or presents a vast and heterogeneous literature (Arksey & O'Malley, 2005; Peters et al., 2020). Unlike a systematic review, which seeks to answer a more restricted research question and assess the methodological quality of studies, a scoping review aims to provide a comprehensive overview of a broader topic, identifying key concepts, types of evidence, and research gaps.

3.1 PROTOCOL AND REGISTRATION

The conduct of this scoping review followed the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018) and the methodology proposed by the Joanna Briggs Institute (JBI) (Peters et al., 2020). Adherence to these methodological frameworks ensures the transparency, rigor, and replicability of the review process. The research protocol was duly registered on the Open Science Framework (OSF) platform on 06/16/2024, under

registration number doi.10.17605/OSF.IO/F3A6H, ensuring public access and compliance with good scientific practices.

The fundamental steps of the review process, as per JBI, included defining the title and research question, elaborating the search strategy, selecting studies, extracting data, analyzing and presenting results, as well as formulating conclusions and recommendations for future research.

3.2 RESEARCH QUESTIONS

The clear formulation of the research question is the backbone of any review. For this scoping review, the guiding question was constructed using the mnemonic PCC strategy (Population, Concept, Context), as advocated by JBI (Mattos et al., 2023).

Table 1

Description of the PCC strategy

P (Population)	Behavior Analyst
C (Concept)	Compassion
C (Context)	Skills

Source: Aleixo, 2025.

Based on the PCC, the research question and the scoping review question were established as follows:

Table 2

Construction of the Scoping Review question

Research Question	What studies have been found regarding the compassion skills of the Behavior Analyst?
Scoping Review Question	What has been widely published in the scientific literature about the compassion skills of the Behavior Analyst?

Source: Aleixo, 2025.

3.3 SEARCH STRATEGY (STRINGS)

The search strategy was meticulously developed to ensure comprehensiveness and precision in retrieving the most relevant studies. With the support of a specialized librarian, controlled descriptors and keywords in Portuguese, English, and Spanish were used, identified in the Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH). The terms were combined using Boolean operators (AND, OR, NOT) and truncations (*) to maximize search sensitivity.

The databases consulted, with their respective strategies, were: Embase, PubMed, Scopus, Web of Science, Lilacs, and Index Psicologia. The choice of these databases was due to their recognized relevance and coverage in the field of ABA and related areas. The CAPES Journal Portal was the main platform for accessing these databases, given its importance for scientific research in Brazil.

The search period was delimited between January 2020 and May 2024, aiming to capture the most recent publications and reflect the current state of the art on the topic. The languages considered were English, Portuguese, and Spanish, recognizing the diversity of global scientific production.

3.4 STUDY SELECTION AND EVIDENCE SOURCES

The study selection process was conducted systematically to ensure the inclusion of only the most pertinent evidence. Initially, all articles identified in the databases were imported into the Rayyan software (Mourad et al., 2016), a tool that facilitates the management of systematic and scoping reviews. Rayyan was used for duplicate removal and for initial screening, where titles and abstracts were independently evaluated by two reviewers.

Agreement between reviewers was calibrated previously through the evaluation of a random sample of 18 articles, reaching an index of 92%, which indicates high reliability in applying the eligibility criteria. Discrepancies were resolved by consensus.

Table 3

Description of inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • Quantitative studies; • Qualitative studies; • Mixed-methods studies; • Experimental and quasi-experimental design studies; • Randomized controlled studies; • Non-randomized controlled studies; • Systematic reviews; • Meta-analyses and/or meta-syntheses; • Books and guidelines published in indexed sources. 	<ul style="list-style-type: none"> • Editorials; • Expert opinions; • Narrative reviews; • Studies that do not cover Applied Behavior Analysis.

Source: Aleixo, 2025.

Studies were included if they had complete abstracts and were freely available in full. In addition to the general eligibility criteria, specific criteria were established for final inclusion, ensuring that studies directly addressed the relationship between compassion skills and ABA:

a) Studies should present, in the title, abstract, or descriptors, the concepts of ABA and/or terms commonly used by researchers in the area, such as skills; b) Studies needed to cite behaviorist authors; c) Studies needed to present, in the title, abstract, or descriptors, the concepts of compassion and/or similar terms such as compassionate skills, however, they would be linked to ABA.

At the end of the screening process, after removing duplicates and applying the exclusion criteria, 13 articles were deemed eligible and included for data extraction and in-depth analysis.

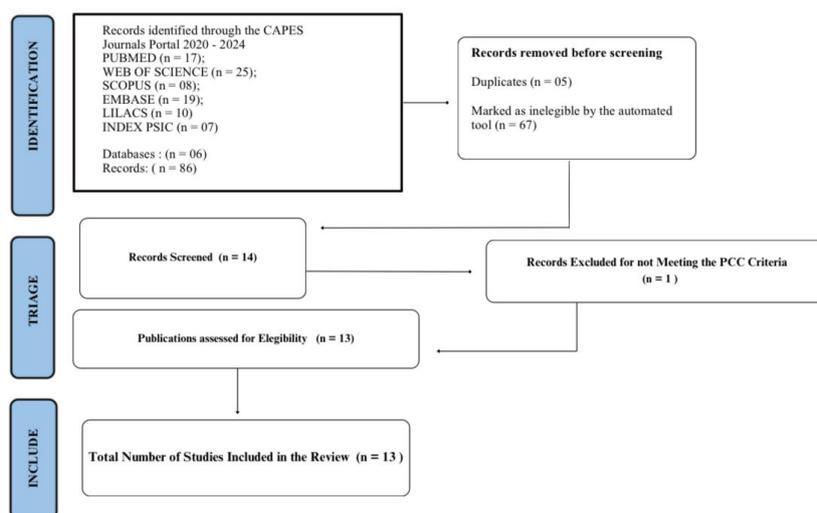
3.5 DATA EXTRACTION AND ANALYSIS

Data extraction from the 13 included studies was carried out using a standardized instrument (available in Appendix B of the dissertation, not reproduced here due to space), which collected detailed information on each research, such as: author(s), year of publication, title, objective, methodology (study type, design, participants, intervention), main results and conclusions, as well as limitations and strengths. All data were organized in an Excel spreadsheet to facilitate analysis and synthesis.

Data analysis involved both a quantitative approach (bibliometric data) and a qualitative approach (thematic analysis). The quantitative analysis focused on the temporal distribution of publications and the geographical origin of the studies. The qualitative analysis, in turn, sought to identify the main concepts related to compassion skills, knowledge gaps, and implications for ABA practice and research. The PRISMA-ScR flowchart (Figure 2) visually summarizes the study search and selection process.

Figure 2

Flowchart of study selection according to the PRISMA-ScR Protocol



Source: Developed by Aleixo, 2025, based on Tricco et al., 2018; Peters et al. 2020.

Table 4

Synthesis of achieved results

(Source: Aleixo, 2025)

Source	String	Results Achieved	Final Selection
Embase	((skills) AND (compassion)) AND (applied behavior analysis)	19	0
Pubmed	((skills) AND (compassion)) AND (applied behavior analysis)	17	05
Scopus	((skills) AND (compassion)) AND (applied behavior analysis)	08	02
Web of Science	((skills) AND (compassion)) AND (applied behavior analysis)	25	06
Lilacs	(“Análise de Comportamento Aplicada” AND “Compaixão” AND “Habilidades”)	10	0
Index Psic	(“Análise de Comportamento Aplicada” AND “Compaixão” AND “Habilidades”)	07	0

The methodology employed aimed to provide a clear and objective overview of the existing literature on compassion skills in ABA, serving as a solid basis for discussing the findings and for directing future investigations in this crucial area for humanized practice.

4 MAIN RESULTS AND THEMATIC ANALYSIS

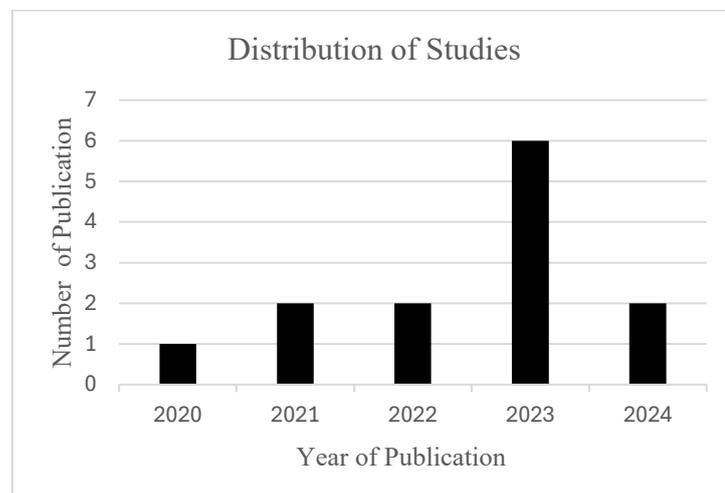
The analysis of the 13 selected studies provided a rich and detailed overview of the current state of research on compassion skills in ABA. The results were categorized into bibliometric aspects, description of the scope of the studies, and an in-depth thematic analysis.

4.1 DESCRIPTION AND SCOPE OF INCLUDED STUDIES

The temporal distribution of publications revealed a growing interest in the topic of compassion in recent years. Although the search period covered from 2020 to 2024, the highest concentration of selected studies occurred in 2023, representing 46% of the total. This data is particularly significant, as it suggests the emergence and consolidation of the topic as an active and relevant research area within ABA.

Figure 3

Studies published by year

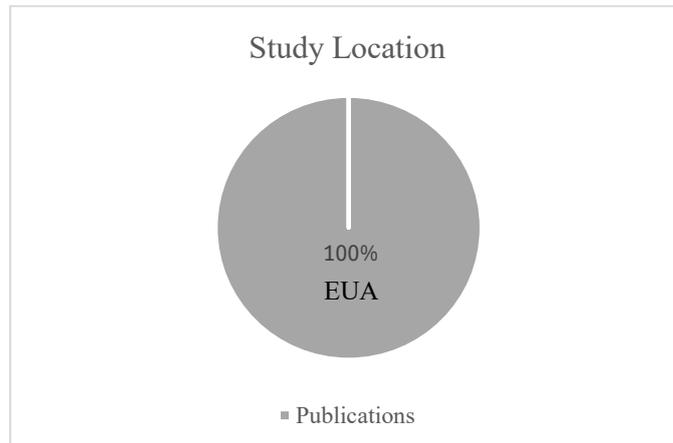


Source: Aleixo, 2025.

Regarding geographical origin, all included studies (100%) originated from the United States. This geographical concentration points to the need to expand research on compassion skills in ABA to other regions and countries, including Brazil, where ABA practice is also growing and requires cultural and contextual adaptations.

Figure 4

Pie chart representing the percentage of studies by country of origin



Source: Aleixo, 2025.

The following table provides a detailed overview of each of the included studies, highlighting authors, year, title, objective, methodology, main results/conclusions, and the originating database. This synthesis is fundamental for understanding the diversity of approaches and foci within the theme.

Table 5

Visual mapping of the main concepts related to compassion skills in ABA identified in the studies

ID	Year	Author	Title	Objective	Methodology	Main Results/Conclusions	Database	Language
E1	2023	Santo et al.	20 Key Behaviors for Rapport Building	Investigate fidelity and adherence to behavioral interventions, client and mediator satisfaction through active listening, communication, empathy, and compassion.	Exploratory Study	Interpersonal skills are essential for behavior analysts due to their impact on career and personal life.	Scopus	English
E2	2022	Hess et al.	Enhancing supervisory relationships with values and committed action training	Evaluate the effect of BST combined with values and committed action training on the development of supervisory relationship skills.	Multiple baseline design	Participants achieved performance in supervisory relationship task analysis and increased ACT knowledge.	Scopus	English

E3	2021	Zayac et al.	A Preliminary Assessment of the Qualities and Behaviors of Exemplary Practitioners: Perspectives From U.S.-Based Behavior Analysts	Provide initial insights into the most important qualities and skills for being an exemplary ABA professional.	Survey	Identification of qualities and behaviors of exemplary behavior analysts.	PubMed	English
E4	2020	Fiebig et al.	An invitation to ACT on the Value of Self-Care: Being a whole Person in all that you do	Offer tools and work practices that can promote well-being and resilience, including self-compassion and self-care.	Qualitative Study/Review	Behavior analysts need support to adopt protective self-care practices and continue providing effective and compassionate services.	PubMed	English
E5	2023	Gatzunis et al.	Using Behavioral Skills Training to Teach Functional Assessment Interviewing, Cultural Responsiveness, and Empathic and Compassionate Care to Students of Applied Behavior Analysis	Evaluate the effectiveness of a training package for teaching culturally responsive and compassion-based functional assessment interview strategies.	Multiple baseline design	BST was effective in improving performance across all three skill sets.	PubMed	English
E6	2023	Plattner et al.	Therapeutic Relationships in Applied Behavior Analysis: Current Status and Future Directions	Review recent research on the practice of ABA professionals in therapeutic alliance-building skills (empathy, compassion, reflective listening).	Literature Review	Behavior analysts can benefit from explicit training in competencies needed to establish and maintain therapeutic relationships.	PubMed	English
E7	2022	Rohrer et al.	Teaching Compassion Skills to Students of Behavior Analysis: A Preliminary Investigation	Identify and define empathic and compassionate care skills, teach them to ABA master's students through BST.	Multiple baseline design	High social validity reports, positive evaluations from consumers and professionals on compassionate behaviors.	PubMed	English
E8	2021	Rohrer et al.	Soft Skills: The Case for Compassionate Approaches or How Behavior Analysis	Discuss benefits of empathic and collaborative approaches and provide suggestions	Multiple baseline design	ABA professionals should recognize areas of need, explore tools, and improve performance in providing	Web of Science	English

			Keeps Finding Its Heart	for behavior analysts to incorporate compassionate care.		compassionate analytical-behavioral treatment.		
E9	2023	Melton et al.	Empathy and Compassion as the Radical Behaviorist Views it: A Conceptual Analysis	Analyze constructs using the concept analysis framework to form a radical behavioral conceptualization of compassion and empathy.	Exploratory study	Refinement of concept analysis framework can guide teaching and supervision to shape behavior analysts' skills in compassionate care.	Web of Science	English
E10	2024	Friedman et al.	Improved Soft-Skill Competencies of ABA Professionals Following Training and Coaching: A Feasibility Study	Evaluate interpersonal competencies, collaboration, and compassion after a pre-program training in ABA professionals.	Cohort study	Implementation procedure to improve these skills, highlighting the importance of centralizing collaborative practice and self-compassion.	Web of Science	English
E11	2024	Nohelty et al.	Compassionate Care Training for Behavior Analysts to Support Caregiver Collaboration	Examine the impact of compassionate care training for clinicians to support therapeutic relationships with caregivers.	Experimental study	Statistically significant difference in the use of compassionate care strategies post-intervention, demonstrating training feasibility.	Web of Science	English
E12	2023	Marchese et al.	Supporting Behavior Analysts in Providing Compassionate Care: The Development of the Parent Partnership Questionnaire (PPQ)	Explore the development and testing of an assessment tool to support collaboration between parents and professionals.	Experimental study	Strong inter-rater reliability for the PPQ, providing a resource to support work with families and integrate compassionate care.	Web of Science	English
E13	2023	D'Agostino et al.	Exploring Perceptions and Use of Compassionate Care with Early Interventionists and Caregivers: A Mixed Methods Investigation	Investigate the use of compassionate care skills from the perspectives of early interventionists and caregivers.	Experimental Study – Convergent mixed-methods design	Suggests areas of growth for compassion and collaboration skills relevant to the field of ABA.	Web of Science	English

Source: Aleixo, 2025.

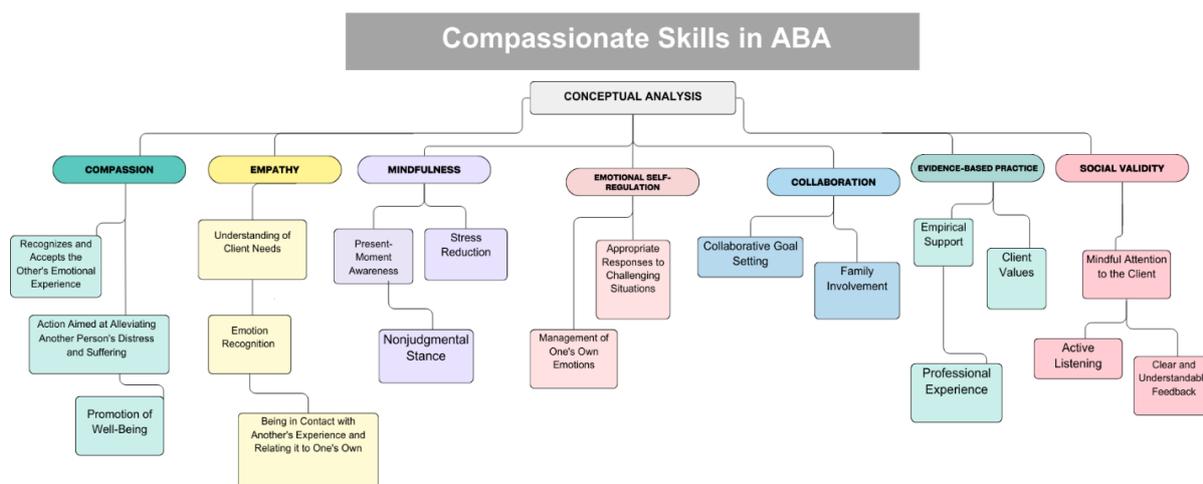
4.2 VISUAL MAPPING OF CONCEPTS AND THEMATIC ANALYSIS

From the synthesis of the studies, it was possible to construct a visual mapping of the main concepts related to compassion skills in ABA. This mapping aids in understanding the

interconnections and breadth of the theme, highlighting how different facets of compassion are addressed in the literature.

Figure 6

Visual mapping of the main concepts related to compassion skills in ABA identified in the studies



Source: Aleixo, 2025.

The thematic analysis of the 13 selected studies revealed the recurrence of three main themes that permeate the discussion on compassionate skills in ABA: Empathy Development, Mindfulness Practices, and Emotional Self-Regulation. These themes not only describe the skills in focus but also point to training strategies and expected outcomes.

4.2.1 Empathy Development

Empathy, defined as the ability to understand and share the feelings of another, is frequently highlighted as a prerequisite for compassion. Several studies in this review address the development and importance of empathy for the behavior analyst:

- **Zayac et al. (2021):** This study sought to identify the qualities and behaviors of exemplary behavior analysts. Empathy emerged as a fundamental characteristic, according to the perception of other professionals in the field. The research indicated that analysts considered exemplary often demonstrate a high empathic capacity in their interactions.

- **Rohrer et al. (2022):** Investigated the teaching of compassion skills to behavior analysis students, with empathy being a central component. The results showed that behavioral skills training (BST) was effective in developing these competencies, positively impacting clinical practice and the perception of social validity by clients.
- **Gatzunis et al. (2023):** Used BST to teach empathic and compassionate care to graduate students in ABA. The effectiveness of the training in improving students' performance in culturally responsive functional assessment interview strategies, which demand empathy, was proven.
- **Plattner & Anderson (2023):** This literature review examined the practices of ABA professionals regarding the construction of a therapeutic alliance, including empathic statements. The study suggests that explicit training in empathic skills is crucial for strengthening therapeutic relationships with parents of children with autism.
- **Melton et al. (2023):** Conducted a conceptual analysis of empathy and compassion from a radical behaviorist perspective. The article outlines critical attributes of both concepts, proposing a behavioral conceptualization that can guide teaching and supervision for the development of compassionate repertoires in behavior analysts.

Collectively, these studies underscore that empathy is not merely a personality trait but a trainable skill, essential for the behavior analyst to establish an effective therapeutic bond and provide truly compassionate care.

4.2.2 Mindfulness Practices

Mindfulness, or present moment awareness, refers to the ability to be present and conscious of the current moment, without judgment. This practice has been increasingly recognized as an important component for self-care and the development of compassion, both for the professional and for the therapeutic relationship:

- **Fiebig et al. (2020):** This article explored the importance of self-care and self-compassion for behavior analysts, especially in challenging contexts such as the COVID-19 pandemic. The authors suggest that incorporating mindfulness practices can promote the well-being and resilience of professionals, allowing them to continue providing effective and compassionate services. Self-care, often neglected, is presented as a pillar for the sustainability of compassionate practice.

Mindfulness practices, by promoting self-awareness and emotional regulation, enable the behavior analyst to respond more presently and centered to the challenges of practice, preventing burnout and cultivating a more compassionate attitude towards themselves and others.

4.2.3 Emotional Self-Regulation

Emotional self-regulation, the ability to manage and adaptively respond to one's own emotions, is a crucial skill for maintaining compassionate and professional behavior, especially in emotionally demanding situations. The following studies highlight its relevance:

- **Hess et al. (2022):** Evaluated the impact of training in values and committed actions (based on Acceptance and Commitment Therapy - ACT) on improving supervisory relationships in ABA. Emotional self-regulation was identified as an integral component of this training, helping supervisors to model and teach more compassionate practices.
- **Friedman et al. (2024):** This study investigated the feasibility of a training program to improve the interpersonal competencies of ABA professionals. Emotional self-regulation, along with collaboration and compassion, was a focus of the program, demonstrating the interconnectedness of these skills for more effective practice.
- **Nohelty et al. (2024):** This pilot study examined the impact of compassionate care training for behavior analysts, with an emphasis on supporting collaboration with caregivers. Emotional self-regulation was presented as a fundamental skill that allows professionals to maintain calm and clarity in challenging interactions, promoting a supportive and understanding environment.

Emotional self-regulation, therefore, allows the behavior analyst to maintain the objectivity and serenity necessary to apply ABA principles compassionately, even in the face of challenging behaviors or stressful situations. It is the foundation for a consistent and empathetic therapeutic response.

4.3 NARRATIVE SYNTHESIS OF MAIN FINDINGS AND GAPS

The analysis of the results points to a growing and undeniable importance of compassionate skills in ABA practice. There is an emergent consensus in the literature that incorporating empathy, mindfulness practices, and emotional self-regulation not only humanizes intervention but also optimizes its effectiveness, especially when working with individuals with ASD and their families. Studies demonstrate that these skills are trainable and that their development has a significant positive impact on client satisfaction and engagement with treatment.

However, the review also revealed significant knowledge gaps that need to be addressed in future research:

- **Lack of empirical studies with rigorous designs:** Many studies on compassion in ABA still rely on self-report measures or have non-experimental designs. There is a clear need for more research with robust experimental designs that evaluate the direct

impact of compassionate skills on measurable outcomes of ABA interventions (Denegri et al., 2023).

- **Scarcity of research on specific development methods:** Although the importance of compassionate skills is recognized, there is still little research that details specific and validated methods for developing these skills in behavior analysts, beyond BST.
- **Limited exploration of the intersection between compassion, ethics, and evidence-based practice:** The relationship between compassion and the ethical principles of ABA needs to be further explored, as well as how compassion can be integrated systematically and evidence-based, without compromising the objectivity of behavioral analysis.
- **Operational definition and behavioral measurement of compassion:** The literature still lacks a precise operationalization and behavioral measurement methods for compassion in the context of ABA. Melton et al. (2023) highlight that, although compassionate care competencies have been topographically identified, they have not yet been analyzed from a radical behavioral framework. As they state:

“To date, compassionate care competencies have been topographically identified but have not yet been analyzed from a radical behavioral framework. ABA practice can be considered inherently compassionate (BACB, 2022; Friman, 2021; Callahan et al. 2019); however, we do not have a behavioral explanation for compassionate behaviors.”(Melton et al., 2023, p.02)

This gap is crucial because for compassion to be effectively integrated as a dimension of ABA, it needs to be behaviorally understood and measured. Rohrer et al. (2022) reinforce this need:

“As behavior analysts strive to become more compassionate and empathetic collaborators, it will be vital for the field of behavior analysis to operationalize the specific competencies needed for successful interpersonal situations.”(Rohrer et al., 2022, p.07)

The identified gaps indicate that, despite the enthusiasm surrounding the topic, research on compassion in ABA is still in its early stages, with great potential for deepening and methodological refinement. It is fundamental for the ABA scientific community to mobilize to fill these gaps, ensuring that the integration of compassion is done rigorously and evidence-based.

5 DISCUSSION: IMPLICATIONS FOR ABA PRACTICE AND TRAINING

This scoping review highlights an unquestionable movement in ABA towards a more humanized and compassionate practice. The findings underscore that compassion is not an

optional additive, but an increasingly recognized component fundamental to the effectiveness of interventions, the quality of therapeutic relationships, and the social validity of outcomes. The following discussion elaborates on the implications of these findings for the training and practice of behavior analysts, addressing challenges, opportunities, and future directions.

One of the most salient points is the evidence that compassionate skills, encompassing empathy, emotional self-regulation, and mindfulness, are trainable. For example, the study by *Rohrer et al. (2022)* demonstrated the effectiveness of Behavioral Skills Training (BST) in teaching these competencies to master's students in ABA. The skills, organized into three areas (interviewing skills, demonstrating interest in the family, and collaborative work), resulted in an immediate increase in participants' repertoire. This is a game-changer, as it demystifies the idea that compassion is merely an innate personality trait, elevating it to the status of a skill capable of continuous teaching and improvement. Rohrer and collaborators' contribution is crucial because, despite limitations, the research socially validated the need for compassionate care skills and demonstrated the effectiveness of BST in this context, providing a bridge between theory and practice.

Corroborating this perspective, *Gatzunis et al.'s (2023)* research also utilized BST, delivered via telehealth, to teach skill sets associated with empathic and compassionate care to graduate students in ABA. The training's effectiveness in improving students' performance in culturally responsive functional assessment interview strategies was confirmed, and participants themselves described the learning as highly applicable to their practices. The ability to deliver such training remotely, as also demonstrated by *Hess et al. (2022)* in evaluating the effects of remote relationship skills training in behavior analysts, opens doors for the widespread dissemination of these competencies, overcoming geographical and logistical barriers. Hess et al.'s (2022) work even advocates for ACT-based values to teach interpersonal relationship skills involving compassion, highlighting the importance of a hybrid teaching model that combines synchronous and asynchronous learning. These innovative approaches to training are essential for equipping future and current behavior analysts with the "soft skills" necessary for comprehensive practice.

Melton et al.'s (2023) conceptual analysis reinforces that compassion, when viewed through a radical behavioral framework, can and should be subject to teaching and training. The operationalization of compassionate behaviors is fundamental for them to be systematically taught, generalized, and monitored, ensuring their authentic and effective integration into ABA. This perspective significantly contributes to refining the definition and construction of processes for identifying problems and solutions in practice, strengthening the social validity of compassion.

The implications for clinical practice are profound. Behavior analysts who incorporate compassionate skills tend to build stronger therapeutic bonds, which translates into greater family engagement and, consequently, better outcomes for clients with ASD. As pointed out by *Taylor, LeBlanc, and Nosik (2018)*, skills such as empathy, compassion, and relationship building can positively influence family satisfaction, treatment adherence, and clinical outcomes. The absence of these skills, on the other hand, can generate friction and difficulties in the therapeutic process (Denegri et al., 2023). The concern expressed by *Penney et al. (2023)* about increasing friction with consumers and the need to partner with them, helping them achieve important goals for them, underscores the urgency of intrinsically compassionate ABA.

The need for continuous training and supervision emerges as a recurring theme. *Zayac et al. (2021)*, in their research on the qualities of exemplary behavior analysts, identified that, in addition to technical skills, interpersonal and social aspects of care are crucial. They quantified and analyzed qualities that include being empathetic, caring, and compassionate, as well as characteristics associated with building positive relationships (kind, patient, positive, and encouraging). This reinforces the idea that ABA training needs to go beyond the traditional curriculum, incorporating modules dedicated to communication skills, active listening, and compassionate care. The 2020 update to the BACB® Code of Conduct, which includes the principle of "treating others with dignity, compassion, and respect," solidifies this demand, making the development of these skills an ethical and professional issue.

The discussion would not be complete without addressing the gaps and challenges. Despite the increased interest, the literature still lacks robust research with experimental designs that evaluate the direct impact of compassion on intervention outcomes (Denegri et al., 2023). Furthermore, the operationalization and measurement of compassionate skills in behavioral terms need to be refined, as *Nohelty et al. (2024)* rightly noted. The development of assessment instruments such as the *Parent Partnership Questionnaire (PPQ)*, by *Marchese et al. (2023)*, is an important step in this direction, but much remains to be done to create valid and reliable measures.

The reviewed studies, including *Friedman et al. (2024)* and *D'Agostino et al. (2023)*, consistently point to the need for specific training programs and instruments that can measure these skills. The creation of a training model that combines the rigor of BST with the flexibility of ACT, as suggested by *Pingo et al. (2020)*, and that incorporates feedback and active listening, seems to be the most promising path.

Ethical Implications: The integration of compassion into ABA raises important ethical questions. How to balance ABA's directiveness with respect for client autonomy, ensuring that compassionate care does not degenerate into paternalism (Subramani, 2020)? It is crucial to ensure that compassion is applied in a way that empowers individuals, rather than imposing solutions based on professional assumptions. Informed consent must always be obtained and respected, and active listening to the client's and their family's preferences and goals should be the main guide for intervention. Ethics in ABA, therefore, is not just about compliance with rules, but about sensitivity and respect for the lived experiences of each individual. The "ethical mindset" that *Sher et al. (2024)* talk about requires continuous reflection on how practices are conducted.

In summary, the evolution of ABA to include compassion is a reflection of its maturity as a science and its adaptability to contemporary social demands. By embracing and operationalizing compassion, ABA strengthens itself, becoming more relevant, more human, and more effective in promoting the well-being of the individuals it serves. The path ahead involves deepening empirical research, refining training methods, and ensuring that compassion is intrinsically woven into the ethical and practical fabric of every behavior analyst.

6 CONCLUSION

This scoping review offered an in-depth analysis of recent literature on compassion skills in ABA practice. The results are clear: there is high agreement among authors on the undeniable relevance of interpersonal relationships and the urgent need to incorporate specific training in compassionate care within the field of ABA. This conclusion reflects a maturation of the science, which recognizes the interdependence between technical-scientific rigor and the human dimension of care.

The analysis of the included studies demonstrated that the integration of compassionate practices is not merely an ideal, but a concrete strategy with the potential to significantly strengthen the effectiveness of behavioral interventions and, crucially, to improve the quality of care provided to clients, especially in the context of ASD. Skills such as empathy development, mindfulness practices, and emotional self-regulation emerge as fundamental pillars for behavior analysts seeking a more responsive, collaborative, and ethical practice.

However, the review also revealed significant gaps in the literature that warrant urgent attention. The main gap lies in the lack of a more robust operationalization and behavioral measurement of compassionate skills in the specific context of ABA. For compassion to be fully integrated as a dimension of ABA, it is imperative that it be defined in observable,

measurable terms, and amenable to behavioral intervention. Furthermore, the scarcity of empirical studies with rigorous experimental designs, capable of evaluating the direct impact of compassion on treatment outcomes, points to a clear direction for future investigations.

This chapter substantially contributes to the field by synthesizing existing knowledge, highlighting the growing importance of compassion in ABA practice, and, most importantly, by providing a solid foundation for future research. We believe that the intentional and systematic incorporation of compassionate skills can significantly enrich the ABA approach, promoting a more humanized, socially validated, and deeply oriented practice toward individual well-being.

Based on the findings of this review, the following recommendations are proposed for the advancement of ABA practice and research:

- **Development of Specific Training Programs:** It is essential to create and implement training programs specifically aimed at cultivating compassionate skills in behavior analysts, using evidence-based methodologies such as Behavioral Skills Training (BST) and incorporating elements of Acceptance and Commitment Therapy (ACT) and mindfulness.
- **Conducting Rigorous Empirical Research:** Encourage and fund research that employs experimental and quasi-experimental designs to evaluate the direct and measurable impact of compassionate practices on the outcomes of ABA-based interventions, with a focus on end consumers (clients and their families/caregivers).
- **Creation of Validated Assessment Instruments:** Develop and validate assessment instruments that can reliably measure compassionate skills in the context of ABA, allowing for clear operationalization and monitoring of the development of these competencies.
- **Incorporation into Training Curricula:** Integrate comprehensive modules on compassion, empathy, active listening, and other interpersonal skills into undergraduate and graduate curricula in Behavior Analysis, preparing future professionals for a more holistic and humanized practice.
- **Implementation and Dissemination Studies:** Investigate the best strategies for implementing and disseminating compassion training in different cultural and organizational contexts, ensuring that these practices are accessible and culturally responsive.

We conclude that the integration of compassion into ABA practice represents a promising area for the continuous advancement of the field. By embracing this dimension, ABA not only aligns with the growing demands for more human and person-centered care

but also enhances its capacity to generate lasting and significant behavioral changes. Future research should focus on operationalizing these concepts and evaluating their effectiveness in real clinical contexts, paving the way for an even more compassionate and impactful ABA.

REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. <https://doi.org/10.1080/1364557032000119616>
- Austin, A., & Fiske, K. (2023). Evaluating compassionate supervisory practices and burnout among ABA staff. *Behavior Analysis in Practice*. <https://doi.org/10.7282/t3-3j0k-h805>
- Barcelos, K. S., Martins, M. F. A., Betone, G. A. B., & Ferruzzi, E. H. (2020). Contribuições da Análise do Comportamento Aplicada para indivíduos com Transtorno do Espectro do Autismo: Uma revisão. *Brazilian Journal of Development*, 6(6), 37276–37291. <https://doi.org/10.34117/bjdv6n6-310>
- Benitez, P., Paulino, V. C., Oliveira-Junior, A. P., Domeniconi, C., & Omote, S. (2021). Atitudes sociais de agentes educacionais em relação à inclusão e à formação em Análise do Comportamento Aplicada. *Revista Brasileira de Educação*, 27, Article e0125. <https://doi.org/10.1590/1980-54702021v27e0125>
- Bowman, K. S., Suarez, V. D., & Weiss, M. J. (2021). Standards for interprofessional collaboration in the treatment of individuals with autism. *Behavior Analysis in Practice*, 14(4), 1191–1208. <https://doi.org/10.1007/s40617-021-00560-0>
- Canon, L. F., & Gould, E. R. (2021). A preliminary analysis of the effects of clicker training and verbal instructions on the acquisition of relationship-building skills in two applied behavior analysis practitioners. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-021-00555-x>
- Chung, K. M., Chung, E., & Lee, H. (2023). Behavioral interventions for autism spectrum disorder: A brief review and guidelines with a specific focus on Applied Behavior Analysis. *Korean Practice Guideline for Autism Spectrum Disorder*. <https://doi.org/10.5765/jkacap.230019>
- D'Agostino, S. R., Dueñas, A. D., Douglas, S. N., & Meadan, H. (2023). Exploring perceptions and use of compassionate care with early interventionists and caregivers: A mixed methods investigation. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-023-00831-y>
- Denegri, S., Cymbal, D., & Catrone, R. (2023). A multilevel framework for compassionate care in ABA: Approaches to cultivate a nurturing system. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-023-00831-y>

- Doubrawa, D., & Menezes, K. A. S. (2023). Importância do diagnóstico precoce do autismo: Uma revisão de literatura. *Brazilian Journal of Development*, 9(6), 19884–19892. <https://doi.org/10.34117/bjdv9n6-077>
- Fiebig, J. H., Gould, E. R., Ming, S., & Watson, R. A. (2020). An invitation to act on the value of self-care: Being a whole person in all that you do. *Behavior Analysis in Practice*, 13(3), 559–567. <https://doi.org/10.1007/s40617-020-00442-x>
- Friedman, Z. L., El Roy, D., Kerwin, E., Tirry, G., & Broff, A. (2024). Improved soft-skill competencies of ABA professionals following training and coaching: A feasibility study. *Behavior and Social Issues*. <https://doi.org/10.1007/s42822-024-00156-7>
- Gatzunis, K. S., Weiss, M. J., Ala'i-Rosales, S., Fahmie, T. A., & Syed, N. Y. (2023). Using behavioral skills training to teach functional assessment interviewing, cultural responsiveness, and empathic and compassionate care to students of applied behavior analysis. *Behavior Analysis in Practice*, 1–27. <https://doi.org/10.1007/s40617-023-00794-0>
- Gitimoghaddam, M., Chichkine, N., McArthur, L., et al. (2022). Applied behavior analysis in children and youth with autism spectrum disorders: A scoping review. *Perspectives on Behavior Science*, 45, 521–557. <https://doi.org/10.1007/s40614-022-00338-x>
- Gu, J., Baer, R., Cavanagh, K., Kuyken, W., & Strauss, C. (2020). Development and psychometric properties of the Sussex-Oxford Compassion Scales (SOCS). *Assessment*, 27(1), 3–20. <https://doi.org/10.1177/1073191119860911>
- Henderson, T. B., Ludden, B. J., & Romero, R. (2023). The ethical obligations, barriers, and solutions for interprofessional collaboration in the treatment of autistic individuals. *Behavior Analysis in Practice*, 16(4), 963–976. <https://doi.org/10.1007/s40617-023-00787-z>
- Hess, A., Garcia, Y., Gould, E., & Catagnus, R. (2022). Enhancing supervisory relationships with values and committed action training. *Journal of Contextual Behavioral Science*, 26, 241–252. <https://doi.org/10.1016/j.jcbs.2022.10.009>
- Hilli, Y., & Sandvik, A. H. (2020). A Nordic model for learning compassionate care in clinical education. *Nurse Education Today*, 90, Article 104454.
- Jemal, K., Hailu, D., Mekonnen, M., Tesfa, B., Bekele, K., & Kinati, T. (2021). The importance of compassion and respectful care for the health workforce: A mixed-methods study. *Journal of Public Health*, 1–12.
- Kirby, M. S., Spencer, T. D., & Spiker, S. T. (2022). Humble behaviorism redux. *Behavior and Social Issues*. <https://doi.org/10.1007/s42822-022-00092-4>
- Kulasinghe, K., Whittingham, K., Mitchell, A. F., & Boyd, R. N. (2021). Psychological interventions targeting mental health and the mother-child relationship in autism: Systematic review and meta-analysis. *Developmental Medicine & Child Neurology*. <https://doi.org/10.1111/dmcn.15432>
- LeBlanc, L. A., Lazo-Pearson, J. F., Pollard, J. S., & Unumb, L. S. (2020). The role of compassion and ethics in decision making regarding access to applied behavior analysis

services during the COVID-19 crisis: A response to Cox, Plavnick, and Brodhead. *Behavior Analysis in Practice*, 13, 604–608. <https://doi.org/10.1007/s40617-020-00446-7>

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*. <https://doi.org/10.1186/1748-5908-5-69>

Liao, H. C., Huang, C. Y., & Wang, Y. H. (2022). Development and psychometric testing of a scale measuring caring behaviors for healthcare students and providers. *Medical Education Online*, 27(1). <https://doi.org/10.1080/10872981.2022.2066496>

Marchese, N. V., & Weiss, M. J. (2023). Supporting behavior analysts in providing compassionate care: The development of the Parent Partnership Questionnaire (PPQ). *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-023-00827-8>

Marshall, K. B., Bowman, K. S., Tereshko, L., Suarez, V. D., Schreck, K. A., Zane, T., & Leaf, J. B. (2023). Behavior analysts' use of treatments for individuals with autism: Trends within the field. *Behavior Analysis in Practice*, 16(4), 1061–1084. <https://doi.org/10.1007/s40617-023-00776-2>

Mattos, S. M., Cestari, V. R. F., & Moreira, T. M. M. (2023). Protocolo de revisão de escopo: Aperfeiçoamento do guia PRISMA-ScR. *Revista de Enfermagem*, 12, Article e3062. <https://doi.org/10.26694/reufpi.v12i1.3062>

Medeiros, N. B., Santos, F. R. C., Gomes, D. S., Sousa, L. N., & Carvalho, A. L. N. (2021). O papel da autocompaixão na regulação emocional: Revisão de literatura. *Revista de Psicologia Unesp*, 20(2). <https://doi.org/10.5935/1984-9044.20210018>

Melton, B., O'Connell-Sussman, E., Lord, J., & Weiss, M. J. (2023). Empathy and compassion as the radical behaviorist views it: A conceptual analysis. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-023-00783-3>

Mourad, O., Hossam, H., Zbysz, F., & Ahmed, E. (2016). Rayyan - A web and mobile app for systematic reviews. *Systematic Reviews*, 5, Article 210. <https://doi.org/10.1186/s13643-016-0384-4>

Nohelty, K., Novack, M. N., Robinson, R. A., et al. (2024). Compassionate care training for behavior analysts to support caregiver collaboration. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-024-00920-6>

Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan—a web and mobile app for systematic reviews. *Systematic Reviews*, 5(1), Article 210. <https://doi.org/10.1186/s13643-016-0384-4>

Penney, A. M., Bateman, K. J., Veverka, Y., Lua, A., & Schwartz, I. S. (2023). Compassion: The eighth dimension of applied behavior analysis. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-023-00888-9>

Peters, M., Marnie, C., Tricco, A., Pollock, D., Munn, Z., Alexander, L., McInerney, P., Godfrey, C., & Khalil, H. (2020). JBI manual for evidence synthesis. JBI. <https://doi.org/10.46658/JBIMES-24-09>

- Pingo, J., Dixon, M. R., & Paliliunas, D. (2020). An examination of the intervention-enhancing effect of acceptance and commitment therapy–based training on direct service professionals' performance in the workplace. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-018-00275-9>
- Plattner, C., & Anderson, C. (2023). Therapeutic relationships in applied behavior analysis: Current status and future directions. *Behavior Analysis in Practice*, 16(4), 1222–1230. <https://doi.org/10.1007/s40617-023-00819-8>
- Pavlova, A., Wang, C., Boggiss, A. L., O'Callaghan, A., & Consedine, N. S. (2022). Predictors of physician compassion, empathy, and related constructs: A systematic review. *Journal of General Internal Medicine*, 37(4), 900–911. <https://doi.org/10.1007/s11606-021-07055-2>
- Rodriguez, K. A., Tarbox, J., & Tarbox, C. (2023). Compassion in autism services: A preliminary framework for applied behavior analysis. *Behavior Analysis in Practice*, 16, 1034–1046. <https://doi.org/10.1007/s40617-023-00816-x>
- 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, 1135–1143. <https://doi.org/10.1007/s40617-021-00563-x>
- Rohrer, J. L., & Weiss, M. J. (2023). Teaching compassion skills to students of behavior analysis: A preliminary investigation. *Behavior Analysis in Practice*, 16(3), 763–782. <https://doi.org/10.1007/s40617-022-00748-y>
- Sher, M. R., Johnson, P., Straub, E., Lao, A., Alzahrani, D., & McCallum, E. (2024). Teaching compassionate-based behaviors across communication partners to students of applied behavior analysis: A preliminary investigation of comparative effectiveness. *Discover Education*. <https://doi.org/10.1007/s44217-024-00198-4>
- Silbaugh, B. C. (2023). Discussion and conceptual analysis of four group contingencies for behavioral process improvement in an ABA service delivery quality framework. *Behavior Analysis in Practice*, 16(2), 421–436. <https://doi.org/10.1007/s40617-022-00750-4>
- Sousa, D. L. D., Silva, A. L., Ramos, C. M. O., & Melo, C. F. (2020). Análise do Comportamento Aplicada: A percepção de pais e profissionais acerca do tratamento em crianças com Espectro Autista. *Contextos Clínicos*, 13(1). <https://doi.org/10.4013/ctc.2020.131.06>
- Snodgrass, M. R., Chung, M. Y., Kretzer, J. M., & Biggs, E. (2021). Rigorous assessment of social validity: A scoping review of a 40-year conversation. *Remedial and Special Education*. <https://doi.org/10.1177/07419325211017295>
- Subramani, S. (2020). The social construction of incompetency: Moving beyond embedded paternalismo toward the practice of respect. *Health Care Analysis*, 28(3), 249–265.
- 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, 654–666. <https://doi.org/10.1007/s40617-018-00289-3>

- Tavares, J. J., Figueiredo, S. N., Villar, A. G. L., & Oliveira, M. B. (2020). Filhos autistas e os fatores de insegurança da mãe quanto ao seu futuro. *Brazilian Journal of Health Review*, 3(5), 12736–12753. <https://doi.org/10.34119/bjhrv3n5-112>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., et al. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*. <https://doi.org/10.7326/M18-0850>
- Williams, L., & Garcia, M. (2022). Mixed methods in compassionate care research. *International Journal of Mixed Methods Research*, 10(1), 78–92.
- Zayac, R. M., Van Stratton, J. E., Ratkos, T., et al. (2021). A preliminary assessment of the qualities and behaviors of exemplary practitioners: Perspectives from U.S.-based behavior analysts. *Behavior Analysis in Practice*, 14, 342–351. <https://doi.org/10.1007/s40617-020-00522-y>