2023

A Qualitative Analysis of Treatment Providers' Understanding and Assessment of Trauma and Autism

Leah Hanson
University of Denver

A Qualitative Analysis of Treatment Providers' Understanding and Assessment of Trauma and Autism

Abstract

Patients with autism spectrum disorder (ASD) are particularly vulnerable to traumatic experiences and further development of posttraumatic stress disorder (PTSD). Underlying traumatic stress is commonly missed and remained untreated in the autism population. In a previous pilot study, Hanson and Richards (2021) gathered providers' understandings on trauma and autism The current study is a further, systemic content analysis on archival data from Hanson and Richard's pilot study. Results from the current content analysis of the responses to Question 1 (How do you assess for trauma in your patients?) revealed that providers assess patients' trauma primarily by interviewing caregiver and patients, as well as by behavioral observations. Responses to Question 2 (What is your definition of trauma?) indicated that some providers define trauma based on the DSM-V-TR PTSD diagnostic criteria. Finally, results about Question 3 (What would you like to learn, if anything, about trauma as it relates to the neurodiverse population?) revealed that providers are interested in learning more about trauma in general and assessment and treatment tools specific for individuals with autism. Conclusions from the current study include that there is a need for provider education on trauma and autism, as well as development of standardized trauma assessment measures and treatments normed on patients diagnosed with autism. Implications for future research and practice are discussed.

Document Type

Doctoral Research Paper

Degree Name

Psy.D.

Department

Graduate School of Professional Psychology

First Advisor

Scarlett Choi

Second Advisor

Kelly Elliot

Third Advisor

Suzanne Richards

Keywords

Autism spectrum disorder, Neurodevelopmental disorders, Trauma, Trauma assessment, Psychoeducation, Post traumatic stress disorder (PTSD), Multidisciplinary treatment, Autism

Subject Categories

Clinical Psychology | Other Psychology | Psychology | Social and Behavioral Sciences

A QUALITATIVE ANALYSIS OF TREATMENT PROVIDERS' UNDERSTANDING AND ASSESSMENT OF TRAUMA AND AUTISM

A DOCTORAL PAPER
PRESENTED TO THE FACULTY OF THE
GRADUATE SCHOOL OF PROFESSIONAL PSYCHOLOGY
OFFICE OF GRADUATE EDUCATION
UNIVERSITY OF DENVER

IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
DOCTOR OF PSYCHOLOGY

BY
LEAH HANSON, MA
7/24/2023

APPROVED:

Scarlett Choi, Ph.D., Chair

_____
Kelly Elliot, Ph.D.

_____
Suzanne Richards, Ph.D.

Acknowledgments

First and foremost, I would like to thank my family for being there for me every step of the way. Their love and support helped me cross the finish line. They encouraged me whenever I thought I couldn't. Without them, this wouldn't be possible (this includes the fur kids). I love my family so much. I also want to thank my chair, Dr. Scarlett Choi, for believing in me and supporting me along this stressful journey. Her guidance, flexibility, and patience are what I needed to push through. I am lucky to have had Dr. Choi as my doc paper chair. Similarly, I thank Dr. Kelly Elliot for being such a wonderful co-chair. I appreciate her tremendous flexibility and support to make sure I could do it. I also would like to thank one of my closest friends and colleagues from GSPP, Dr. Lyndsey Keyte. Thanks for being such an awesome friend ever since I met you in our Family Systems class. We have shared a lot of good and tough times together while getting through the program. Next, a special thank you to Childserve for allowing us to conduct this research project in 2021. You have also helped me grow personally and professionally throughout the years. I am grateful for the opportunity to work at a place that serves children with special needs and their families. My colleagues at Childserve have rooted me along, and I will always have a special place in my heart for them. One colleague I would like to especially thank is Dr. Suzanne Richards. Since I started as your supervisee in 2020, you have been a special (and much needed) part of my journey. I hope to someday become as well-rounded of a clinician as you are. Finally, this is dedicated to all my supervisors who have rallied behind me—Thank you!

Abstract

Patients with autism spectrum disorder (ASD) are particularly vulnerable to traumatic experiences and further development of posttraumatic stress disorder (PTSD). Underlying traumatic stress is commonly missed and remained untreated in the autism population. In a previous pilot study, Hanson and Richards (2021) gathered providers' understandings on trauma and autism The current study is a further, systemic content analysis on archival data from Hanson and Richard's pilot study. Results from the current content analysis of the responses to Question 1 (How do you assess for trauma in your patients?) revealed that providers assess patients' trauma primarily by interviewing caregiver and patients, as well as by behavioral observations. Responses to Question 2 (What is your definition of trauma?) indicated that some providers define trauma based on the DSM-V-TR PTSD diagnostic criteria. Finally, results about Question 3 (What would you like to learn, if anything, about trauma as it relates to the neurodiverse population?) revealed that providers are interested in learning more about trauma in general and assessment and treatment tools specific for individuals with autism. Conclusions from the current study include that there is a need for provider education on trauma and autism, as well as development of standardized trauma assessment measures and treatments normed on patients diagnosed with autism. Implications for future research and practice are discussed.

A Qualitative Analysis of Providers' Understanding of Trauma and Autism

Investigators in the field, such as Hoover and Kaufman (2018) have written extensively concerning the harmful consequences of traumatic stress left untreated in the autism population. Yet, this is often absent due to the provider's and caregiver's lack of understanding in the way trauma presents in individuals diagnosed with autism spectrum disorder (ASD) as compared to individuals without ASD. Understanding traumatic events in the lives of individuals with neurodevelopmental disorders is important in comprehensive assessment and treatment. Untreated trauma in this population has led to a critical health crisis today. Worsened symptomology, an increase in health complications, and a high rate of deaths by suicide are some of these examples.

Nationally there are apparent gaps in the quality of healthcare for individuals diagnosed with autism, particularly in trauma care. Maddox and colleagues (2021) discovered such a problem in mental health care designed for individuals with autism. Kildahl and Jørstad (2021) explored negative consequences of unidentified and untreated trauma in a patient with autism. Their stress response did not improve over time. Furthermore, the provider's lack of recognition of their trauma was potentially traumatizing. Without appropriate assessment tools providers are unable to identify and treat trauma in autistic populations. Assessment tools are important in providing quality trauma care for individuals with ASD.

Symptoms of trauma may go unrecognized in people with autism because certain symptoms of trauma are also commonly associated with ASD. Symptoms such as aggression, concentration difficulties, social isolation, increased relational difficulties, regression in daily living skills, and an increase in the levels of repetitive or stereotypic behavior, it is very possible professionals may assess trauma responses as a part of the autism diagnosis. Therefore, it is

important providers know about symptom overlap and differentiation between trauma and autism when working with people diagnosed with autism (Allely & Faccini, 2019). It seems that because providers are focused on autism itself, co-occurring conditions are frequently missed.

Stack and colleagues (2019) noted biopsychosocial risk factors for PTSD in patients with autism. For example, unlike neurotypical peers, individuals diagnosed with ASD pose unique vulnerabilities. These individuals have neurobiological conditions and social communication deficits which can lead to the development of trauma responses to stressors that are considered general and everyday experiences for people without autism. For example, unexpected changes, fire drills, dentist appointments, sensory overwhelm, etc. Neurobiological conditions and social communication difficulties can be understood in terms of a person with autism's coping strategies, language processing, and tendencies to perseverate. Assessment understanding and treatment can better support individuals with autism and trauma to recover more effectively from stressors and avoid developing post-traumatic stress disorder (PTSD).

Without standardization of trauma-related measures based on subject norms, mental health providers are not likely to assess their patients with autism for trauma. For example, a recent study (Kerns et al., 2015) found that while 75% of a provider sample believed identification of trauma-related symptoms was needed, only 10% universally screened for it in their neurodiverse patients. In support of this, Rumball and colleagues (2020) also found that currently only 10% of U.S. treatment providers routinely screen, assess for, or treat trauma-related symptoms. In addition, Ng-Cordell and colleagues (2022) found that individuals with autism experience unique traumas, such as being diagnosed with autism, autism treatments, etc. cannot be detected by trauma assessment measures currently being used. Standardized assessment measures and further education for providers could help to resolve this issue.

Without a consensus on how to identify PTSD in individuals with ASD, it is challenging to develop standardized assessment measures and evidence-based treatments for this population. According to Kildahl and colleagues (2020), it is best practice to have multiples assessment tools and multiple informants to appropriately diagnose individuals diagnosed with autism with PTSD. Educating providers on this topic as well as developing effective assessment tools is needed.

Given the gaps found in the literature, Hanson and Richards (2021) developed a pilot study to explored providers' knowledge and perceptions of trauma and autism. Specifically, they conducted a survey with seven open-ended questions after a thorough review of relevant literature and scholarly articles on autism and trauma. They collected narrative responses from the survey that was distributed electronically and completed by fellow providers in a multidisciplinary care facility that serves children with neurodevelopmental disorders and families. Treatment providers were asked to report on the types of traumas their parents have, how they learn about their patient's trauma, their views on trauma, and what they want to learn more about trauma and autism. Survey responses allowed the researchers to learn and identify areas of growth in respondent's knowledge of trauma and more specifically trauma assessment. The data collected was then integrated into a presentation the researchers gave at an annual national autism conference. Additionally, the data was used in a psychoeducational presentation given to fellow healthcare workers within their agency in hopes to improve their effectiveness of trauma-responsive care with patients diagnosed with autism.

While Hanson and Richard's (2021) pilot study contributed to the field by developing a staff training, they did not conduct any further analysis of the data. This poses a significant limitation in their study and therefore served as a starting point for future studies. The current study aims to take Hanson and Richard's (2021) study one step further by conducting a systemic

review of part of their data that directly focus on the providers' perspective and practices on trauma assessment for their patients. The results from this study will aim to improve provider's knowledge of trauma and autism, and the quality of trauma-responsive care for patients with autism. Additionally, the data may help promote future developments of standardized trauma assessment tools and procedures unique to children and adolescents with autism, as none exist to this day.

Method

Sample

Participants from the pilot study (Hanson & Richards, 2021) were treatment providers at Childserve, a healthcare facility for children and families with neurodevelopmental conditions. A total of 56 respondents completed the survey. This included 15 speech therapists, 10 occupational therapists, 11 childcare providers, five mental health therapists, one respite provider, four case managers, seven ABA therapists, and three physical therapists.

For the current study, written responses to each of the three questions were reviewed separately and subject to content analysis. Out of a total of 56 respondents, 43, 38, and 36 respondents completed Questions 1, 2, and 3, respectively. That is, 13, 18, and 20 participants did not complete Questions 1, 2, and 3, respectively. As shown in Table 1, participant characteristics are limited to discipline, and no other demographics were gathered to maintain anonymity.

Written responses for each question were then organized by respondent numbers in Xcel documents. The word length for responses ranged from 2 to 58 for Question 1, 7 to 42 for Question 2, and 2 to 50 words for Question 3.

Data Collection

Permission for the pilot study to be conducted was obtained from the Childserve human resources (HR) department. After the researchers were granted HR's approval, a survey of seven open-ended questions listed was composed in an MS Word document and sent for final approval and distribution by the organization's HR department. The electronic survey was distributed by the Childserve HR department to employed providers. They provided written responses to questions regarding 1) their discipline, 2) their patient's traumas, 3) how they assess for trauma, 4) observable changes in patients following trauma, 5) how they define trauma, 6) the source they learn the most from about patient traumas, 7) and what they would like to learn more about regarding trauma and autism. Providers completed surveys without incentive and within a seven-week time frame. Then, the HR department collected the responses and inputted them all into an organized Xcel document. The document of the anonymous responses was then provided to the researchers.

For the current study, we consulted with the IRB on whether IRB approval was needed to analyze archival data and they indicated the current study did not require IRB approval.

Data Analysis

The first step was to break down each response into semantic units to extract initial themes. The 43, 38, and 36 responses to Questions 1, 2, and 3 were broken down into a total of 97, 52, and 71 semantic units, respectively. After reviewing the units for each question, the two researchers created a list of common themes to develop a coding system for analysis. They started with reviewing the first 15% of the semantic units to extract initial themes for each question. Next, the primary investigator continued to analyze the remaining semantic units (85%) by either coding them using the initial themes or identifying new themes. The investigators

collaboratively reviewed and modified the coding sets until they were satisfied with unit coding and theme names.

Through this process, a total of 10 themes were identified for Question 1, seven themes for Question 2, and seven for Question 3. Each semantic unit for each question was then coded by themes that paired best with keywords that appeared in the unit's contents. For the next step, the two researchers sorted the units by the code number (i.e., theme) to review the content consistency among all units listed for each theme. During this process, units that appeared mismatched or less relevant were re-coded using a more relatable theme. After finalizing the coding, we achieved a total number of units for each theme to quantify theme occurrence. Finally, the investigators discussed broader categories for each question to sort themes into. They derived five categories for Question 1, three for Question 2, and three for Question 3. See Table 2 for theme and category names, and unit totals respectively.

Results

Through the analysis process, we analyzed responses to the following three questions: 1. How do you assess your clients for trauma? 2. What is your definition of trauma? and 3. What would you like to learn, if anything, about trauma and the neurodiverse population? In this section, results for each theme and category for the three questions will be presented in more detail.

Question 1. How do you assess your clients for trauma?

A total of 10 themes were extracted from the written responses, which were then grouped into a total of five categories: *1. Interview, 2. Observation 3. Assessment Protocols, 4. Consultation,* and *5. No Assessment.* This means that providers learn about their clients' trauma through direct methods such as interviews (category 1), indirect methods such as observations

(category 2), formal assessment procedures (category 3), and consultation and referral (category 4). Some providers, however, reported that they do not assess clients' trauma and thus have difficulties in learning about their clients' trauma (category 5). Below are detailed descriptions of each of these five categories.

Category 1. Interview

A total of 34 semantic units are included in the Interview category. The total number of themes included in the Interview category is two that relate to ways in which the providers learned about their patient's trauma through verbal reports. These themes include Caregiver Reports and Patient Reports. Theme 1, the Caregiver report, consists of 22 units related to providers who learn about their patient's trauma through discussions and interviews with parents and caregivers of patients. Theme 2, Patient report consists of 12 units associated with providers who typically hear directly about traumas from their patients while interacting with them.

The following are sample responses with coded themes for the Interview category:

- We mainly rely on parent reports of life experiences upon intake. (Theme 1: Caregiver report)
- Specifically ask their caregivers for information about the traumatic event. (Theme 1: Caregiver Report)
- Depending on the client and situation, ask the client about the event. (Theme 2: Patient report)

Category 2. Observation

The second category consists of a single theme, Observation. A total of 28 semantic units are included in this category and theme. Theme 3, Observation included responses from the

providers who reported relying on patients' behaviors, moods, and changes in their presentations for the indication of trauma in patients.

The following are sample responses in the Observation category:

- Pay attention to bruises, marks, etc. (Theme 3: Observation)
- Being aware of behavioral changes over time, atypical adverse responses to things/situations that may be d/t traumatic experiences. (Theme 3: Observation)

Category 3. Assessment Protocols

The third category, Assessment Protocols, consists of 13 semantic units and, a total of two themes representing providers who reported learning about their patient's traumas with standard assessment processes that are followed within their specific discipline: Document Review and Standardized/formalized assessment. Theme 4, Document Review, has a total of seven units related to providers who learn about patients' trauma through their charts and initial paperwork completed during the intake process. A total of six semantic units were coded for Theme 5, Standardized/formalized assessment. This theme indicates providers who complete standardized assessments and procedures as a part of their patient's treatment. Some providers mentioned specific assessments used (i.e., comprehensive mental health assessment; Motivational Interviewing (MI); the Child Dissociative Checklist (CDC); The Child and Adolescent Trauma Screen (CATS); etc.).

The following are sample responses with coded themes for the Assessment protocols category:

- Comprehensive Mental Health Assessment Child Dissociative Checklist CATS. (Theme 5: Standardized/Formalized assessment)

- We try to cover as much as we can through our Child & Family Assessment Form at intake. (Theme 4: Document Review)

Category 4. Consultation

A total of eight semantic units make up the Consultation category. Two themes were extracted from this category related to obtaining clinical data on patients' trauma through consultation and referral for assessment. Theme 6, Professional Consultation consists of five units related to providers who learn their patient's traumas when consulting with fellow interdisciplinary team members within the agency. In addition, some units through care coordination discussions with outside professionals (i.e., school staff, mental health providers, psychiatrists, pediatricians, etc.). Theme 7, Referral for assessment consists of only three units associated with providers who reported that they cannot formally assess their clients for trauma for unidentified reasons but do refer to other providers who can.

- RBT's (Registered Behavior Technicians) cannot assess for trauma. We rely on reports from other stakeholders. (Theme 8: Referral for Assessment)
- Asking questions of individual or interdisciplinary teams. (Theme 7: Professional Consultation).

Category 5. No Assessment

Finally, the No Assessment category represents providers' responses about being unable to assess and learn about trauma in their patients. A total of 46 semantic units are included in this category. The semantic units are coded for each of the four themes within this category based on the stated reasons for not conducting an assessment. That is, no assessment due to lack of knowledge, no assessment tools available, and, finally, for unknown reasons. Theme 8, Lack of knowledge, consists of three semantic units related to providers who are unable to learn about

and assess their patient's trauma because of limited training and competence in trauma and trauma assessment. Theme 9, No assessment tools, consists of three units associated with providers who have not learned about traumas from their patients due to limitations within their area or practice or tools needed to assess their patients for trauma are not provided by their agency. Theme 10, No assessment for unknown reason has a total of three units related to providers who reported they, for unidentified reasons, do not assess for trauma in their patients and therefore have not learned about trauma in any of their patients.

The following are sample responses with coded themes for the No Assessment category:

- We don't have assessment tools for trauma screening. (Theme 9: No assessment tools)
- I do not assess for trauma. (Theme 10: Does not assess for unknown reason)
- I do not have the knowledge to do this. (Theme 8: Lack of knowledge)

Additionally, it is important to note that some providers reported that they do not assess for trauma but expressed a desire to learn more about trauma assessment. Some providers also highlighted the importance of rapport building as a gateway for learning and identifying trauma in their patients.

Question 2. How do you define trauma?

A total of seven themes were extracted and then grouped into a total of three categories: *1. Emotional Stress, 2. Outcome, 3. Subjectivity*. Most providers view and understand trauma through a clinical lens. That is, their definitions of trauma include textbook PTSD features and diagnostic criteria, such as emotional stress (category 1) and clinical outcomes (category 2) of trauma. Interestingly, few providers view trauma through a client/person-focused lens and define trauma in terms of patient subjectivity and experience (category 3). This conceptualization style is commonly used in person-centered therapy and relational-based interventions (e.g.,

intersubjective psychodynamic therapy). Below are detailed descriptions of each of these three categories.

Category 1. Emotional Stress

A total of 32 semantic units belong to the Emotional Stress category. A total of three themes are included in this category that relate to providers who define trauma based on emotional stress. These themes include Severe Distress, Chronic Distress, and General Distress. Theme 1, Severe Distress, consists of four units related to provider definitions of trauma that reference acute severity. Theme 2, Chronic Distress, consists of nine units associated with providers who define trauma by chronic severity. Theme 3, General Distress, includes 19 units related to the provider's trauma definitions that refer to basic, general stress.

The following are sample responses with coded themes for the Emotional Stress category:

- Deeply affects a person, causing significant distress. (Theme 1: Severe Distress)
- Causing a lasting and impactful stress response. (Theme 2: Chronic Distress)
- An emotional response to a negative situation. (Theme 3: General Distress)

Category 2. Outcome

A total of 15 semantic units are included in the Outcome category. This category includes three themes that relate to providers who reference potential outcomes and side effects of trauma. These themes include Physiological impact, Re-experiencing, and Functional impairments in multiple life domains. Theme 4, Physiological impact, consists of seven units related to the provider's definition of trauma that reference brain and body effects of trauma. That is alterations in mood and cognition, impaired nervous system, somatic complaints, etc. Theme 5, Re-experiencing, consists of only two units related to providers who include PTSD symptoms,

such as re-experiencing and trauma triggers in their definition. Finally, Theme 6, Functional impairments in multiple life domains, consists of six units associated with provider trauma definitions referencing poor adaptive functioning skills, a decline in daily living, and major problems in multiple life domains because of trauma.

The following are sample responses with coded themes for the Outcome category:

- And/or physical effects on a child's development and well-being. (Theme 4: Physiological impact)
- Can be re-triggered by similar experiences. (Theme 5: Re-experiencing)
- Negatively impacting a person severely enough to change the way they function in certain contexts. (Theme 6: Functional impairments)

Category 3. Subjectivity

The third category consists of a single theme, Subjectivity. A total of four semantic units belong to this category and theme. This theme includes providers who define trauma that is subjective to their patient; meaning that if an event is perceived as traumatizing from their patient's perspective, then providers also consider these events as traumas.

The following are sample responses in this category:

- Is found traumatic by the child. (Theme 7: Subjectivity)
- An event that is traumatizing for an individual – traumatizing meaning that they have a reaction that is highly negative. (Theme 7: Subjectivity)

Question 3. What would you like to learn, if anything, regarding trauma and the neurodiverse population?

A total of nine themes were extracted and then grouped into a total of three categories: *1. Assessment Skills, 2. Treatment Skills,* and *3. Information about Trauma*. There was a

considerable amount of shared learning topics endorsed by providers including how to assess for trauma (category 1) and treat trauma in individuals with autism (category 2), as well as learning more about trauma-informed care and parent psychoeducation (category 3).

Category 1. Assessment Skills

A total of 14 semantic units are included in the Assessment Skills category. A total of two themes belong to this category related to trauma assessment. Theme 1, Initial detection of signs consists of three units associated with providers who want to learn how to better detect trauma signs, symptomology, and unique clinical presentations in patients with autism. Theme 2, Assessment Strategies consists of 11 units associated with providers who want to learn about trauma-specific assessment tools and procedures standardized on individuals diagnosed with autism.

The following are sample responses with coded themes for the Assessment Skills category:

- How to identify that trauma may be occurring. (Theme 1: Initial detections of signs)
- Evidence-based assessments. (Theme 2: Assessment strategies)

Category 2. Treatment Skills

For the Treatment Skills category, a total of seven units are included. Two themes were extracted from this category, related to learning how to treat their neurodiverse patients for trauma. Theme 3, Treatment unique to people with autism consists of three units and relates to the provider's interest in effective, and evidence-based treatment for this population, as well as ways to modify current treatment modalities for the autism population. Finally, Theme 4. Immediacy intervention has a total of four units related to providers who would like de-

escalation strategies and responses to patient's trauma responses, such as re-experiencing symptoms, in-session.

The following are sample responses with coded themes for the Treatment Skills category:

- I would say I would want to learn ways to modify current interventions. (Theme 3: Treatment unique to the autism population)
- Best ways to treat. (Theme 3: Treatment unique to the autism population)
- How to better support them if/when they become triggered. (Theme 4: Immediacy intervention)

Category 3. Information about Trauma

A total of 17 semantic units are included in the Information category. Four themes were extracted from this category related to providers' requests to learn general information about trauma, information specific to autism, and ways to educate parents on trauma. A small number of providers expressed a general interest in learning and did specify topics. Theme 5, General Information about trauma for the providers consists of six units associated with providers who would like to learn more about trauma-informed care. Theme 6, Information specific to the Autism Population has a total of five units related to providers who inquired about general education on trauma unique to individuals diagnosed with autism. Theme 7, Trauma Psychoeducation for caregivers consists of three units including providers who stated they would appreciate learning about how to educate patient's parents and caregivers on trauma. Finally, Theme 8, Unspecified also consists of only three units associated with providers who did not specify what they would like to learn and providers who expressed high interest to learn as much as possible about this topic to best serve their patients.

The following are sample responses with coded themes for the Information about Trauma category:

- More education about different types of traumas. (Theme 5: General information about trauma)
- I want to learn more about how trauma can be different for the neurodevelopmental population. (Theme 6: Information about trauma specific to the autism population)
- How to define trauma so families understand it more and it's a less "taboo" term. (Theme 7: Trauma Psychoeducation for Caregivers)
- Strategies to give to caregivers or the school team to utilize with the client to help prevent more trauma. (Theme 7: Trauma Psychoeducation for Caregivers)
- Any additional information would be appreciated. Theme 8: Unspecified)

Additionally, some providers mentioned they did not know what they wanted to learn more about regarding trauma and neurodiverse populations.

Discussion

This study aimed to gather current understandings of trauma and trauma-informed practices used amongst multidisciplinary providers who treat children with neurodevelopmental conditions and their families. The data analyzed in this study was previously collected during a pilot study by Hanson & Richards (2021). They used an electronic survey to obtain providers' responses to seven open-ended questions designed by the researchers. Responses allowed investigators from the pilot study to gain a glimpse of where providers' current knowledge and first-hand experiences with trauma in their patients diagnosed with autism.

The researchers for the current study selected three questions for analysis that were relevant to their interests in assessment and training development. Researchers. They selected

and analyzed the following: How do you assess clients for trauma? What is your definition of trauma? and What would you like to learn, if anything, about trauma and the neurodiverse population? A systemic content analysis was conducted to provide investigators with a more thorough review of the data. Overall, the results exhibited specific strengths and weaknesses within the providers' care.

The first question (How do you assess clients for trauma?) aimed to gather insights into how providers were currently assessing patients for trauma. Positively, it was found that providers conduct trauma assessment in one way or another. That is, over 90% of providers apparently have made efforts to learn about patient traumas. Providers reported they use assessment tools, strategies, or other ways of learning about their patients' traumas. The remaining 10% of providers reported that they do not assess patients for trauma because they either do not know how to or they do not have the tools to do so. This contrasts what Kerns and colleagues (2015) discovered, which was only 10% of providers screen their patients with autism for trauma symptoms.

Varied assessment procedures were mentioned within the participants' responses: clinical interviews, behavioral observations, standardized testing, case consultation, record review, and referral requests. Results showed that providers primarily assess patients for trauma during clinical interviews with caregivers and patients. More providers learn from parent interviews than with patients. Structured clinical interviews are considered the gold-standard for evidenced based assessment procedures. Although multi-informant methods are best practice for child assessment (Bailey et al., 2023), providers should exercise caution when using parent report of their children's traumatic experiences. Research has shown parent reports on their child's trauma and trauma symptoms are not always accurate and consistent with the child's

report or presentation (Kerns et al., 2015). In other words, what the parent indicated was currently going on for the child was not demonstrated or identified by the child. Hoover and Kaufman (2018) found that parents with trauma impact how they perceive their child's traumatic experiences.

Bailey and colleagues (2023) examined 132 children of ages 6 to 13 and their parents about their agreement rates on child posttraumatic stress symptoms. Their findings were that children's self-report of their own trauma symptoms had higher accuracy rates than parent report. Additionally, parents with higher levels of active posttraumatic stress symptoms reported more trauma symptoms in their children than parents with lower levels of symptoms. This was completed with a neurotypical population sample. The providers in the current study rely on parent reports, who are often involved with their children's trauma, making their reports less reliable.

Another key finding for Question 1 is the second most used method of trauma assessment is through provider observations. Providers reported they have typically identified possible trauma in their patients based on any notable behaviors in session and physical appearances that would indicate recent abuse. Traumatic and acute stress disorders are classified as psychological and mood conditions. Thus, assessing and treating these disorders require patient reports on their internal experiences that are not clearly observable to others (Rumball et al., 2020). Since neurodiverse populations may struggle to articulate and report their emotional distress, it is most helpful for providers to monitor for any behaviors that may indicate internal distress in their patients. Therefore, it makes sense that at least 30% of the providers in the current sample also found their observations of patients with autism to be helpful for detecting any emotional problems.

Interestingly, results for Question 2 (How do you define trauma?) also highlight the key role emotional distress has on trauma. Around 62% of providers referenced emotional distress when defining trauma. There is clinical understanding that trauma is the etiological cause for psychological and emotional impairments (American Psychological Association, 2022). Providers in the current study demonstrated an understanding that emotional distress does not always equate to trauma. Some providers specified that trauma-based emotional distress is severe and chronic. Although this is helpful, it also can keep providers from acknowledging underlying trauma in patients diagnosed with autism.

Individuals with autism can struggle with emotional insight and describing their internal experiences to others. This makes it difficult for them to report internal trauma reactions to their providers (Ng-cordell et al., 2022; Stack & Lucheyshyn 2019). For example, they may not report their distress altogether or give general reports that minimize their distress. Therefore, providers should keep in mind that traumatic stress reactions may not always be described as chronic or debilitating by patients with autism, and may dismiss their traumas because they did not seem chronic or severe enough to be treated.

Finally, responses to Question 2 revealed gaps in provider knowledge. First, less than 1% of providers mentioned re-experiencing symptoms within their definition of trauma. Research has shown that a notable and identifiable sign of trauma in patients with autism is evidence of re-experiencing symptoms of posttraumatic-stress disorder (Hoover & Romero, 2019). As explained by Allely and Faccini (2019), neurobiological vulnerabilities associated with autism spectrum disorder (ASD) place individuals with ASD at a higher rate for re-experiencing symptoms of trauma. The consequences of repetitive and perseverative thought processes in autism make these individuals more prone to repetitively think about and replay

terrifying experiences as if they were re-experiencing them. It is imperative for providers to remain curious about situations their patients perseverate on and investigate the function of their perseveration.

Coincidentally, the second gap in provider knowledge found for Question 2 was the importance of trauma subjectivity. This was the least common theme found in providers' definition of trauma. An important point made by Kerns and colleagues (2022) is that there is a high variability between traumatic experiences and coping abilities of individuals with an autism diagnosis and individuals without an autism diagnosis. A lack of provider knowledge about non-traditional traumas unique to individuals with autism limits them from being diagnosed and treated for trauma (Stack & Lucheyshyn, 2019). This again underscores the need for provider training and awareness of trauma in individuals with autism.

Results for Question 3 (What would you like to learn, if anything, about trauma related to the neurodiverse population?) revealed three major categories of learning topics reported by providers: assessment, treatment, and general information about trauma. Providers expressed the most interest in learning more about general information about trauma, including trauma-informed care, psychoeducation for parents, and trauma information specific to individuals diagnosed with autism. Positively, assessment was the second most reported learning topic by providers. They acknowledge a lack of knowledge about assessment tools and strategies to use with patients diagnosed with autism. This pattern is consistent with the previous literature that highlights the need for more standardized assessment measures normed and used on neurodiverse populations (Kerns et al., 2022). Without standardized assessment tools unique to this population, underlying trauma will continue to be missed and left untreated.

Strength, Limitations, and Implications

Taken together, our results demonstrate that providers integrate other forms of assessment within their work due to a universal lack of assessment tools and procedures for patients with autism. Providers are relying on parent interviews and their behavioral observations of patients to identify the presence of trauma. Additionally, gaps in provider knowledge on trauma unique to the autism population were apparent, particularly in understanding trauma subjectivity and monitoring for re-experiencing symptoms of trauma in individuals with autism.

Our findings not only correspond with the literature, but it also helps contribute to the field by adding more insight into provider understandings and experiences with trauma and their patients with autism. Few studies have been done on providers. The information from this study gathered serves as a great starting point for developing professional and psychoeducational training on autism and trauma. Specifically, our findings call for more training developed for providers on trauma specific to the autism population and effective assessment strategies and treatments tailored to patients with autism.

Although results from this study clearly support the needs and conclusions drawn from previous studies, there are some limitations that could be addressed in future research. The first major limitation relates to the sample of providers who participated in the study. While a robust number of providers participated and represented multiple disciplines, there were an overwhelming number of ABA therapists compared to other participating disciplines. Future studies should limit their sample to providers from mental health, psychology, and psychiatry disciplines. Second, another limitation of the current study was the use of a survey with open-ended questions without follow-up interviews to further inquire providers about their responses and to seek clarification on confusing response. A study that includes both a survey and interviews with participants would be considerably more helpful when gathering provider

insight. Finally, this study only contributes qualitative information and findings to the field. This poses a risk to highly subjective data. As such, future quantitative studies are encouraged to be conducted on providers' understandings of autism and trauma. This will help measure providers' knowledge and frequency of assessment.

Despite these limitations, this study has enhanced our understanding of provider insight and experiences working with patients with autism in multiple disciplines. The findings were presented at the national autism conference to spread awareness of autism and trauma, as well as encourage others to further study this topic. The results allowed us to identify areas of strength and gaps for future staff training on trauma and autism. Most importantly, the findings continue to reinforce the need for developing trauma assessments and measures that are standardized for people with neurodevelopmental conditions. Furthermore, this study shed light on how trauma is defined in the healthcare field. Certain perspectives could be drawn from how providers defined trauma, such as considering trauma based on diagnostic criteria and limiting trauma to extreme experiences and outcomes. This calls for further teaching and clarification on the subjectivity of trauma and understanding the trauma spectrum to prompt inclusivity of unique stressors of individuals with autism. We hope our study will encourage further investigation and contribution of this important area, particularly on trauma assessment with the autism population. We also hope our study will instill curiosity and motivation in others to read and learn more about trauma and autism, as well as introduce others to this topic.

Conclusion

Traumatic stress often goes unrecognized and untreated for individuals diagnosed with autism. Many patients with autism do not receive adequate care and relief because their mental health symptoms are written off as features of autism. Unrecognized and untreated mental health

problems in the autistic population have contributed to the growing mental health crisis (Maddox et al., 2021; Hoover & Kaufman, 2018). Research has highlighted a lack of understanding in the healthcare field and a need for clinical tools tailored to patients with autism. The field calls for more investigation and development assessments for autism and trauma. The aim of this study was to into trauma assessment and provider understanding on trauma and autism. The findings illustrated by our study underscore the need for trauma assessment measures and provider education on trauma and autism. Without available assessment tools for patients with autism, providers rely heavily on parent interviews and behavioral observations, which may be less reliable sources of information. Parent's own trauma experiences, as well as misidentifying behavioral symptoms impact the reliability of clinical observation and interview. Our findings are not exhaustive and are a starting point for future studies. Future studies should sample providers from psychology and mental health disciplines, as well as a quantitative data to illustrate provider knowledge and use of assessment. Awareness of our study and its findings may help to improve the care neurodiverse individuals receive, by encouraging further investigation and development of standardized trauma testing and treatment for this population.

References

Allely, C. S., & Faccini, L. (2019). The importance of considering trauma in individuals with autism spectrum disorder: considerations and clinical recommendations. *Journal of Forensic Practice*, *22*(1), 23–28. https://doi.org/10.1108/jfp-11-2019-0049

American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders, text revision DSM-5-TR.* (5th ed.). American Psychiatric Association.

Bailey, M., Meiser-Stedman, R., Hiller, R., Haag, K., Lobo, S., & Halligan, S. L. (2023). Child posttraumatic stress symptoms in an acute injury sample: patterns of associations among child report, parent report, and child heart rate parameters. *Journal of traumatic stress*, *36*(2), 333–345. https://doi.org/10.1002/jts.22913

Dodds, R. L. (2020). An exploratory review of the associations between adverse experiences and autism. *Journal of Aggression, Maltreatment & Trauma*, 1–20. https://doi.org/10.1080/10926771.2020.1783736

Haag, K., Hiller, R., Peyk, P., Michael, T., Meiser-Stedman, R., Fearon, P., Ehlers, A., & Halligan, S. L. (2019). A longitudinal examination of heart-rate and heart rate variability as risk markers for child posttraumatic stress symptoms in an acute injury sample. *Journal of Abnormal Child Psychology*, *47*(11), 1811–1820. https://doi.org/10.1007/s10802-019-00553-2

Hanson, L.H., & Richards, S.K (2021, June 12-13). *Understanding the role of traumatic events in the neurodiverse population* [Virtual paper presentation]. Milestones Annual National Conference, Cleveland, Ohio.

Hoover, D. W., & Kaufman, J. (2018). Adverse childhood experiences in children with autism spectrum disorder. *Current Opinion in Psychiatry*, *31*(2), 128–132. https://doi.org/10.1097/yco.0000000000000390

Hoover, D. W., & Romero, E. (2019). The Interactive Trauma Scale: A Web-Based Measure for Children with Autism. Journal of autism and developmental disorders, 49(4), 1686–1692.

Kerns, C. M., Newschaffer, C. J., & Berkowitz, S. J. (2015). Traumatic childhood events and autism spectrum disorder. *Journal of Autism and Developmental Disorders*, *45*(11), 3475–3486. https://doi.org/10.1007/s10803-015-2392-y

Kerns, C. M., Lankenau, S., Shattuck, P. T., Robins, D. L., Newschaffer, C. J., & Berkowitz, S. J. (2022). Exploring potential sources of childhood trauma: A qualitative study with autistic adults and caregivers. *Autism*, 136236132110706. https://doi.org/10.1177/13623613211070637

Kildahl, A. N., & Jørstad, I. (2021). Post-traumatic stress disorder symptom manifestations in an autistic man with severe intellectual disability following coercion and scalding. *Journal of Intellectual & Developmental Disability*, 1–5. https://doi.org/10.3109/13668250.2021.1995930

Kildahl, A. N., Oddli, H. W., & Helverschou, S. B. (2020). Potentially traumatic experiences and behavioural symptoms in adults with autism and intellectual disability referred for psychiatric assessment. *Research in Developmental Disabilities*, *107*, 103788. https://doi.org/10.1016/j.ridd.2020.103788

Maddox, B. B., Dickson, K. S., Stadnick, N. A., Mandell, D. S., & Brookman-Frazee, L. (2021). Mental health services for autistic individuals across the lifespan: recent advances and current gaps. *Current Psychiatry Reports*, *23*(10). https://doi.org/10.1007/s11920-021-01278-0

Ng-Cordell, E., Wardell, V., Stewardson, C., & Kerns, C. M. (2022). Anxiety and trauma-related disorders in children on the autism spectrum. *Current Psychiatry Reports*, *24*(3), 171–180. https://doi.org/10.1007/s11920-022-01331-6

Rumball, F., Happé, F., & Grey, N. (2020). Experience of trauma and ptsd symptoms in autistic adults: risk of ptsd development following dsm -5 and non-dsm -5 traumatic life events. *Autism Research*, *13*(12). https://doi.org/10.1002/aur.2306

Stack, A., & Lucyshyn, J. (2019). Autism Spectrum Disorder and the Experience of Traumatic Events: Review of the Current Literature to Inform Modifications to a Treatment Model for Children with Autism. *Journal of autism and developmental disorders*, *49*(4), 1613–1625. https://doi.org/10.1007/s10803-018-3854-9

Table 1

*Providers' Characteristics and Response Rates Per Question (*N=*56)*

Respondents	Question 1	Question 2	Question 3
Speech therapists	12	11	10
Occupational therapists	10	9	9
Case managers	4	4	3
Physical therapists	2	2	2
Childcare providers	5	2	2
ABA therapists	5	6	6
Respite providers	1	0	0
Mental health therapists	2	2	2
Other [a]	2	2	2
Total	43	38	36
Did not complete [b]	13	18	20

Note. Question 1: How do you assess your clients for trauma? Question 2: How do you define trauma? Question 3: What would you like to learn more about, if anything, regarding trauma and the neurodiverse population?

[a] 'Other' providers include disciplines who do not work directly or clinically with patients (e.g., case managers).

[b] Reported number of providers who did not provide a written response to this question.

Table 2

Categories and Themes for Questions 1-3

Question	Category	Theme
1. How did you assess your clients for trauma?	1. Interview (34)	1. Caregiver Report (22)
		2. Patient Report (12)
	2. Observation (28)	3. Observation (28)
	3. Assessment Protocols (13)	4. Document Review (7)
		5. Standardized/Formalized Assessment (6)
	4. Consultation (8)	6. Professional Consultation (5)
		7. Referral for Assessment (3)
	5. No Assessment (9)	8. Lack of Knowledge (3)
		9. No Available Tools (3)
		10. No Assessment for Unknown Reason (3)
2. How do you define trauma?	1. Emotional Stress (32)	1. Severe Distress (4)
		2. Chronic Distress (9)
		3. Unspecified Distress (19)
	2. Outcome (15)	4. Physiological Impact (7)
		5. Re-Experiencing (2)
		6. Functional Impairments (6)
	3. Subjectivity (4)	7. Subjectivity (4)
3. What would you like to learn, if anything, regarding trauma and the neurodevelopmental population?	1. Assessment Skills (14)	1. Initial Detection of Signs (3)
		2. Assessment Strategies (11)
	2. Treatment Skills (7)	3. Treatment Unique to the Autism Population (3)
		4. Immediacy Intervention (4)
	3. Information about Trauma (17)	5. General Information about Trauma (6)
		6. Information about Trauma Specific to the Autism Population (5)
		7. Trauma Psychoeducation for Caregivers (3)
		8. Unspecified (3)

Note. Numbers in parentheses indicate the frequency of the semantic units coded with each of the themes or categories.