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University of Northern Colorado
Greeley, Colorado

IMPLEMENTING PRACTICE WITH CHILDREN AFFECTED BY TRAUMA IN THE FIELD
OF SPEECH-LANGUAGE PATHOLOGY

An Honors Capstone
Submitted in Partial
Fulfillment for Graduation with Honors Distinction and
the Degree of Bachelor of Science

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College of Natural and Health Sciences

MAY 2024

IMPLEMENTING APPROPRIATE PRACTICE WITH CHILDREN AFFECTED BY
TRAUMA IN THE FIELD OF SPEECH-LANGUAGE PATHOLOGY

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Abstract

There is currently a lack of research in the field of Speech-Language Pathology regarding the understanding and implementation of appropriate practice when working with children who have experienced a variety of forms of trauma, including maltreatment. Previous research has shown a significant correlation between trauma exposure and speech and language deficiencies, so children who fall in this group are often involved in speech-language pathology services. Therefore, it is essential that clinicians in this field obtain a better understanding of how to implement appropriate trauma-informed care. This research poses the question, “What is the relationship between childhood maltreatment and the development of speech and language skills, and how can SLPs best design their practice when working with children affected by trauma including maltreatment?” The purpose of this research is to obtain a better understanding of how children who have experienced trauma can receive the most appropriate and beneficial services in the field of Speech-Language Pathology, due to the prevalence of trauma history in children as it relates to speech and language development. Research has been conducted through qualitative processes including virtual interviews with Speech-Language Pathologists. Responses have been compiled and interpreted using thematic analysis to create a product of all of the information obtained from each participant and determine an effective answer to this question. Potential limitations to this study may include small sample size, minimal variation in years of participant experience and location, and short duration of interviews.

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Introduction

The field of Speech-Language Pathology involves a broad range of clients of all ages, who face a multitude of different communication and swallowing disorders. Children make up a considerable amount of clients in this field, many of which come from different backgrounds and varying experiences. In recent years, there has been increasing interest in the relationship between the speech and language development of children, and instances of maltreatment and traumatic experiences. While there has been a widespread understanding and sufficient research of the negative development, health and behavioral outcomes of children who have experienced trauma (Rupert & Bartlett, 2022), emerging research seeks to determine how exposure to trauma and maltreatment specifically impacts communication development in children. Many children who experience speech and language difficulties at a young age will be involved with speech-language pathology services. Therefore, considering the body of evidence that has been accessed, it is likely that Speech-Language Pathologists work with children who have experienced maltreatment and exposure to trauma, therefore contributing to the need for services. Despite the current knowledge and research regarding this potential correlation, “there is little information available regarding how to translate trauma-informed knowledge into SLP practice” (Rupert & Bartlett, 2022). More knowledge must be obtained through research in order to build a stronger inventory of information regarding this topic, which is why I chose this area to research further. The question I seek to answer through my research is, “What is the relationship between childhood maltreatment and the development of speech and language skills, and how can SLPs best design their practice when working with children affected by trauma including maltreatment?” It is crucial for Speech-Language Pathologists to understand the relationship between childhood maltreatment and the development of speech and language skills, and how

implementing trauma-informed knowledge can drive the practice when working with children that fall into this category. This is important because understanding this relationship enables SLPs to implement practices to most appropriately and effectively benefit children who have been affected by trauma exposure and maltreatment. The purpose of my research is to obtain a better understanding of how children who have experienced trauma can receive the most appropriate and beneficial services in the field of Speech-Language Pathology, due to the prevalence of trauma history in children as it relates to speech and language development.

Review of Related Literature

In order to understand how to implement appropriate trauma-informed care into the practice of speech-language pathology, it is essential to understand the basis of the occurrence of trauma exposure and how research has sought to determine its relationship with the communication development and skills of children. Much of the previous research regarding this correlation refers to such experiences using the term “maltreatment”. Maltreatment is defined by the World Health Organization to include “all forms of physical and emotional ill-treatment, sexual abuse, neglect, and exploitation that results in actual or potential harm to the child's health, development or dignity” (Snow, 2009). This term encompasses many forms of adverse experiences that seemingly pose an impact on the speech & language development of children. Many children who have been exposed to maltreatment have been removed from such situations, and placed in out-of-home care. These systems may include residential care, family group homes, and independent living, but it is more likely that children removed from their biological homes as a result of maltreatment will be placed in foster care or kinship care (Byrne, et al. 2018). Byrne et. al. (2018) also reports that children under the age of 9 years comprise over half of all children involved in out of home care. The number of children in out-of-home care is on

the rise in many countries, including a 20% increase between the years of 2010 and 2014 in Australia. Since history of maltreatment and trauma exposure is so prevalent in out of home care situations, it is crucial to recognize and consider the growing number of children within these systems as it relates to the development of their communication skills.

Despite a current lack of information to guide Speech-Language Pathologists in providing appropriate care and service for children who have experienced trauma exposure including maltreatment, considerable research has been implemented regarding its impact on speech and language development. A study was conducted by Eigsti & Cicchetti (2004) to evaluate if preschool-aged children who have experienced maltreatment present delays and deficits in syntactic complexity compared to non-maltreated children. Participants included 19 maltreated preschool-aged children and 14 non-maltreated preschool-aged children along with each of their mothers, all of which came from similar socioeconomic backgrounds. Each mother-child dyad participated in a free play session, which was then transcribed and scored for the presence of morphosyntactic forms in child speech and for specific sentence structures in maternal speech. Syntax was measured by assessing speech using the Index of Productive Syntax. Findings indicated that the maltreated and non-maltreated groups differed significantly, and maltreated children demonstrated primarily below-average syntactic complexity and vocabulary skills. Maltreated children demonstrated “less complex language and with a less advanced knowledge of vocabulary” (Eigsti & Cicchetti, 2004). Qualitative differences in characteristics of maternal utterances between the two groups were also derived. During play sessions, maltreating mothers were less talkative with their children, producing fewer types of utterances, regardless of their own language abilities. The study concluded that child maltreatment is associated with language delay in both vocabulary and production of syntactic

structures. (Eigsti & Cicchetti, 2004). It is important to recognize not only the result of low performance by maltreated children, but also the evidence regarding limited interaction from maltreating mothers. It is widely understood that we acquire language through modeling, and sufficient talkativeness and communication from parent to child often promotes communication development. If children are raised by maltreating parents that neglect communicating with them often, it makes sense that their own expressive language skills will be weaker, as they are provided with an insufficient example of communication. The discussion within this text identified the maltreated children as indicating the need for speech-language evaluations (Eigsti & Cicchetti, 2004).

In addition to the vocabulary and syntax skills of children who have experienced trauma including maltreatment, there has been research to support its correlation with several other aspects of language, including the social and pragmatic skills of developing children. A study conducted by Lum et. al (2018) explored this area, by posing the question, “what is the extent to which maltreatment history and the characteristics of out-of-home care correlate with the language skills of maltreated children?” (Lum, et al., 2018). Participants in this study included 82 maltreated children between 5 and 12 years of age, including 40 females and 42 males. All of these children had at least one substantiated case of physical abuse, sexual abuse, emotional abuse and/or neglect as indicated by government records. They all were residing with state-designated carers in out-of-home-care. In this study, participants were administered a series of standardized tests assessing language skills, social skills, and general intellectual functioning, including the Clinical Evaluation of Language Fundamentals-4th Edition, Australian Standardisation (CELF-4), social skills improvement system’s (SSIS) rating scales, and Raven’s coloured progressive matrices (RCPM). Tests were individually given to each child in a single

session that lasted around 50-60 minutes. Findings of this study found that the sample of maltreated children performed significantly below the normative mean on both tests on language and social skills. The study reports that at the group level, language and social skills are poor in maltreated children, yet gains in language skills may be made through the out-of-home-care environment. This connects to the notion that experiencing a neglectful environment may stunt childrens' development of language, including social skills. Therefore, residing in an out-of-home care environment where children are experiencing adequate healthy interactions and communication may lead to growth in these delayed areas.

Pierce et. al. (2022) conducted a study examining the association between Adverse Childhood Experiences (ACEs) and youth social skills, considering emotional maturity, communication skills, intentionality, and social competence in regards to social skills. The sample for this study consisted of urban-born youth, 44% female and 66% male, with a mean age of 15 years. The racial/ethnic breakdown of participants includes 37% non-Hispanic White, 25% non-Hispanic Black, 28% Hispanic, and 10% 'Other'. Seventy-nine percent of these youth had experienced an adverse childhood experience by age 5. This was a longitudinal study completed in several waves from birth through adolescence. Data collection began with interviews with parents shortly after birth. Follow up interviews were completed after 1, 3, 5, 9, and 15 years, with mothers, fathers, primary caregivers, as well as the focal child in later waves. Social skills were measured using 10 questions asked to the focal child at 15 years, using the Express Subscale of the Adaptive Social Behavior Inventory (ASBI) which was designed to measure children's social competence. ACEs were measured using the Parent-Child Conflict Tactics Scale, used to determine physical and emotional abuse and neglect. Results of the study found that as the number of Adverse Childhood Experiences increased, deficits in social skills also

increased. On the other hand, increased parental monitoring, punishment and closeness were associated with increased social skills. The findings also reported that the timing and duration of ACE exposure led to more significantly decreased social skills.

Another study related to the correlation between maltreatment and social skills took a slightly different approach by examining the idea of suggestibility in relation to the social skills of this population. This study was conducted by Benedan et.al. (2018), and questioned the influence of neglect on intelligence, language, and social skills of children. This study consisted of a sample of neglected children, and a sample of non-neglected children. The neglected sample included 75 children aged between 5 and 12 years, all of which had experienced neglect from one or both biological parents, and were then placed in out- of-home care. The non-neglected group included 75 age and gender matched children, who had not experienced neglect from either parent. Two different sub-studies were conducted throughout this process. In study 1, the Gudjonsson Suggestibility Scale (GSS-2), a standardized measure of suggestibility was administered. According to the American Psychological Association, suggestibility refers to “the inclination to readily adopt the ideas, beliefs, attitudes, or actions of others”. Study 2 included the administration of a battery of standardized tests that measured general intellectual functioning and language ability. Throughout the administration of both studies, Benedan et. al. (2018) found that neglected children were more likely to yield to leading questions. This effect could not be attributed to intelligence, language ability, problem behaviors, age of neglect onset, or time spent in out-of-home care. Suggestibility was positively correlated with communicative skill, assertion and engagement. This study offers a slightly different take on the research question by bringing in the idea of suggestibility, which is different from other previously reviewed research. The article states that while some of the findings may seem counterintuitive,

they might actually suggest that maltreated children had strengths in these areas because they learned to comply with adults around them to protect themselves or foster belonging.

Other studies have offered evidence regarding a potential link between trauma exposure and narrative language skills in children. One study conducted by Snow et. al. (2020) hypothesized that “children with histories of maltreatment will display narrative language skills that are significantly below age-expected norms, narrative and core language skills will be positively correlated, and narrative language skills will be associated with measures of socioeconomic disadvantage” (Snow et al, 2020). Participants included 83 children (40 males, 43 females) aged 5-12 years from English speaking home backgrounds, representing all three Out Of Home Care placement types, including foster care, kinship care, and residential care. These children were evaluated using the Test of Narrative Language and the Clinical Evaluation of Language Fundamentals (CELF-4) Core Language Score. Results indicated that 42% of children scored below average on the Narrative Language Index Ability Index. The same percentage scored at/above age levels on narrative comprehension. Household income & socioeconomic disadvantage was not significantly associated with narrative language skills. It is also noted that, “Children who are victims of maltreatment should be considered at-risk for compromised expressive narrative ability” (Snow et al., 2020). Understanding this relationship is relevant in regard to the field of Speech-Language Pathology as children with deficits in narrative language skills may be working with Speech-Language Pathologists, who must understand the most appropriate care and practice to implement. This relationship is prevalent in other areas as well. According to Snow et. al. (2020), findings of this study “have significant implications for the way in which police and human services personnel are trained to conduct investigative interviews with children who are suspected to have been maltreated”. Further research about

children living in out of home care following maltreatment that present delays in narrative language abilities is needed to identify ways that forensic interview protocols can support the expressive language skills of these children and allow access to justice and fairness in legal processes. Additional knowledge in this area can also support the implementation of appropriate services for these children.

Considering the results of previous research providing evidence to support the correlation between trauma exposure including maltreatment and speech and language deficiencies, it is essential that Speech-Language Pathologists understand this information as it is greatly relevant to the practice. Speech-Language Pathologists must be knowledgeable about the effects of trauma exposure and its prevalence in speech and language development in order to provide the most appropriate and effective services to children that fall into this category. A study was conducted by Rupert & Bartlett (2022) to determine if Speech-Language Pathologists have adequate knowledge, beliefs, training, and current practices regarding developmental trauma and attachment. Ninety-seven SLP practitioners who work primarily with children from birth to age 6 years in Canada participated in this study, to which an online survey was administered, eliciting both qualitative and quantitative data. Most participants reported that they “did not receive training regarding developmental trauma and attachment” and their explanations of these topics “revealed a somewhat narrow conceptualization” (Rupert & Bartlett, 2022). It was determined from this data that Speech-Language Pathologists adapt their practice when they are aware that children they are working with have experienced trauma, yet they lack training with respect to trauma and attachment. These results have implications for SLPs and the systems/organizations they work for, as well as the children and families they work with. According to Rupert & Bartlett (2022), “SLP practitioners should understand how trauma can impact development and

how it presents in early childhood and the protective factors in a child's life. Those who lack comprehensive understanding of trauma & attachment will miss many opportunities for prevention, identification, and providing trauma-informed care" (Rupert & Bartlett, 2022).

Therefore, it is essential that Speech-Language Pathologists are trained to understand the concept of trauma and how it can impact the speech and language skills of children, so that they can provide the most appropriate and effective care for clients within this category. In recent times, there has been growth in the research and education of Speech-Language Pathologists on this matter. Rupert & Bartlett (2022) report that, "there is emerging discussion and practice guidance from some SLP professional associations and regulatory bodies that supports additional learning. For example, the American Speech Language-Hearing Association (ASHA) facilitates discussion forums on childhood trauma and maltreatment, where interest amongst the SLP community is clear. However, there still persists a lack of guidance regarding how the practice should actually be altered in such circumstances.

Significant evidence regarding a correlation between maltreatment and speech and language impairment has been established through research. Research has also shown a lack of knowledge across the field of Speech-Language Pathology in regards to trauma-informed practices, and the importance of improvement in this area. It is crucial that Speech-Language Pathologists are adequately trained and educated to work with children affected by maltreatment to provide the most appropriate and effective services. My research aims to determine the most appropriate and effective treatment practices when working with children who have been exposed to trauma including maltreatment in the field of speech-language pathology, and the effectiveness of these strategies and interventions. Other areas of research to consider include parental neglect and its negative impact on language development as this concept still requires further research to explain the presence of this relationship.

Methodology

Data was collected through qualitative interview processes to obtain information about Speech-Language Pathologists' views on the relationship between trauma and speech and language development, the idea of trauma-informed practice, their personal experiences, and recommendations for practitioners within the field in regard to this subject. Five Speech-Language Pathologists were contacted through email or text, and three agreed to participate in the study. All subjects were contacted through mutual connections with the researcher, and all reside in the state of Colorado. Each participant is involved in a different setting within the field, including elementary schools, private practice, and early intervention, but all work in pediatrics. All participants were officially recruited through a formal email invitation, to which they responded with a signed consent form covering all details of the study including the purpose of the study, method of data collection, estimated length of interview, notices of recording and transcription for analysis, and confidentiality information. One-on-one structured interviews were collected virtually through Zoom, which were audio and video recorded using the "record meeting" feature on the platform. All interviews were conducted between November 2023 and December 2023. To start each interview, the researcher reiterated information included on the consent form regarding the purpose of the study, data collection method, recording of the interview, and confidentiality information to obtain verbal consent. Then, participants were asked a number of open and closed-ended questions including the following:

- 1) What do you currently know about the relationship between trauma/maltreatment and speech/language skills?
- 2) Have you been educated or trained in regard to working with clients who have been exposed to trauma or maltreatment?

- 3) Do you think SLPs lack knowledge in this area? If so, how?
- 4) Are you informed about trauma exposure when working with a new client?
- 5) If so, do you alter your practice considering their experience? If you do, how?
- 6) If not, do you think this would impact your interaction/treatment of clients in this group?
- 7) What challenges may come with working with trauma-exposed clients?
- 8) How do you think SLPs can best design their practice when working with clients in this group?
- 9) Do you think trauma-informed care is important in this field? Why or why not?

Each interview lasted between 15 and 20 minutes. Follow-up questions were included as necessary to obtain a sufficient answer to each question. Lastly, the researcher provided an opportunity to add any additional information, or questions about the study.

Each Zoom meeting was audio and video recorded using the software, and transcribed by hand. Data was reviewed and analyzed to identify themes and commonalities among answers, as well as differing responses and variation.

Results

Three virtual interviews were conducted via Zoom with Speech-Language Pathologists. Each interviewee works in a different setting, with various additional prior work experience with different populations. All participants have at least 20 years of experience as an SLP in the field, but all varied slightly in exact number of years. Demographic and experiential data of participants is displayed in the table below (Table 1).

Table 1: Participant Demographic & Experience Data

Participant/Interview Number	Workplace Setting	Previous workplace/population experience	Years of experience
#1	Elementary school	High school Children in poverty	20-25 years
#2	Private practice	Elementary schools	30+
#3	Early intervention	Medicaid clients	20-25 years

Interviews revealed many commonalities and overarching themes between participants' responses, as identified in Table 2 below. Each theme is described in more detail in the following paragraphs.

Table 2: Overarching themes that emerged from interviews with Speech-Language Pathologists

Identified Overarching Themes
1. Speech-Language Pathologists indicated background knowledge in regard to a link between trauma/maltreatment and speech/language skills.
2. Participants did not receive trauma-informed education as a part of undergraduate or graduate school training.
3. All participants agreed that SLPs tend to lack knowledge in regard to the link between trauma/maltreatment and speech/language skills as well as trauma-informed practice in the field.
4. SLPs do not usually receive extensive information regarding clients' potential trauma-exposure, but it varies based on the setting and condition.
5. Gathering information along with building trust & rapport with clients were commonly reported strategies for proceeding with clients with trauma history.
6. Mixed responses were given about potential challenges that may present when working with trauma-exposed clients.
7. All participants agreed that trauma-informed care is important within the field.

Theme 1: Speech-Language Pathologists indicated background knowledge in regard to a link between trauma/maltreatment and speech/language skills.

Each interviewee indicated some degree of knowledge and experience in regard to background information about the relationship between trauma including maltreatment and speech & language skills. There was variation in the extent and context of this information, but each participant provided knowledge based on their own personal experiences.

Responses demonstrated knowledge of the many avenues of development which traumatic experiences including maltreatment can have an impact.

“I know that trauma and maltreatment can impact all parts of a person, and, if development is happening during that critical moment it absolutely can have an impact. I absolutely know that it has an impact, it can affect development, it can affect social-emotional, which when our social-emotional is not good, and we’re not feeling safe or good, potentially our development is not going to go the way that we would like it to.”

(Interview 1)

Participants also described prior knowledge from studies regarding this relationship, and seeing this connection in action throughout various settings and populations, including children in poverty and families from lower socioeconomic statuses.

“I know that many, I would say at least a third, I’ve read that statistic, of children who are referred to us for speech and language delays, have experienced some sort of

maltreatment. I spent my career, before I came here, with children of poverty. In that case, it was far more than a third. I would say almost to a child, language delay, not as much as speech delay, was linked to some sort of either direct or indirect trauma that came from being a child of poverty.” (Interview 2)

“I have worked in the birth to 3 program for a good 20-25 years, and initially a lot of my clients were Medicaid clients, so who came from the lower economic situation, and so I think that there definitely was a strong tie between what was going on in the home and some delay with speech and language skills and majority of my kiddos were late talkers.” (Interview 3)

Interview #3 also indicated additional perceived impact on speech and language skills in these lower socioeconomic populations due to lack of resources, education, and access to intervention that can come with this status.

Theme 2: Participants did not receive trauma-informed education as a part of undergraduate or graduate school training.

There was variation between each participant in regard to their personal exposure to trauma-informed training and practices. However, while some participants received training outside of their required education, none were educated on trauma-informed care while in undergraduate or graduate school.

“They didn’t really talk about trauma when I was in grad school.” (Interview 1)

“It was not part of my grad school training or undergrad.” (Interview 1)

Some participants described additional trauma-informed training that they received from external sources such as courses, and through experience within the field.

“Through the years, I’ve learned from my families and from additional training, at least knowledge and awareness and some strategies. I’ve taken a few courses knowing that it’s important, and really realized it through a couple of families where it really was impacting my students, and learning from other professionals how important it is to have a knowledge base, so I have had some coursework and professional development to understand it better.” (Interview 1)

Participant #2 described an instance of direct training within a trauma-informed school setting, which other SLPs interviewed with a school-based history did not experience.

“I worked at a high school and we were definitely a trauma-informed school with trauma-informed practices that we were trained on. It was a whole school training, and it was videos, and it was a national trauma-informed school and therapy kind of focus.”
(Interview 2).

Theme 3: All participants agreed that SLPs tend to lack knowledge in regard to the link between trauma/maltreatment and speech/language skills as well as trauma-informed practice in the field.

There was a general consensus between all participants that SLPs tend to lack knowledge about this topic.

“I would say definitely; we I feel like in this profession are not trained how to deal with it. We get our training and our skills as speech therapists, but when it comes to those mental health issues I feel like if we're not addressing that, the speech and language takes the backseat.” (Interview 3)

However, multiple participants expressed that this is an emerging topic within the field, which has become more prevalent in recent years, indicating potential for a growing knowledge base.

“it’s really come to the forefront a lot more, in my opinion at least in my own exposure, in the last five years.” (Interview 2)

“I think potentially there is a lack of understanding of how trauma can impact it. However, I will say that I’m hearing more about it from ASHA, so they’re definitely putting it out there. I’ve seen numerous pieces in ASHA publications, or just emails, or just required trainings.” (Interview 1)

Participant 1 expressed that the perceived lack of knowledge may be due to the setting of work and population.

“I would tend to say yes, especially working here, we’ve got excellent SLPs, but we are with a population where I don’t think there is as much trauma exposure, where it was more than norm where I was before.” (Interview 2)

Theme 4: SLPs do not usually receive extensive information regarding clients’ potential trauma exposure, but it varies based on the setting and condition.

Depending on the setting as well as the instance of exposure, the extent to which SLPs are informed about trauma exposure varies, but is not usually extensive. SLPs reported that the information given depends on the family’s comfortability and willingness to share. When asked if trauma exposure is communicated upon starting services with a new client, Participant 1 reported that...

“Sometimes it is, and sometimes it’s not. Depending on the setting you’re in, and also depending on the families willingness to talk about it. I think sometimes families know how important it is for everybody to be aware about it, and some families are still going through a process of understanding their child and how it may impact their child, or they’re not comfortable talking about it because they are more private.” (Interview 1)

However, responses also indicated that often information can come out indirectly through communication and on the basis of trusting relationships.

“As we get to know each other, potentially conversations open, and hopefully we can ask open-ended questions or they feel comfortable talking a little bit more about history, and what things that may be going on.” (Interview 1).

SLPs reported being informed of trauma-exposure through intake forms, emails, and through open communication with families. Participant 2 discussed a structured form of trauma information in a trauma-informed school setting.

“We implemented a program where they send a “handle with care” email if a child had been exposed to a traumatic event. They wouldn’t give us any details of the event and we were taught to not ask questions, but they would let us know.” (Interview 2)

Participant 3 also expressed SLPs typically are not that given detailed information, and this information is not usually updated regularly,

“In my birth to three program I do not get that information. I feel like I get more information from the families in the schools, but it's very rare to get detailed information. Typically, their social workers get a background, but a lot of times that's also not updated regularly. I think unfortunately we're probably one of the last to know of situations like that.” (Interview 3)

Theme 5: Gathering information along with building trust & rapport with clients were commonly reported strategies for proceeding with clients with trauma history.

Participants reported many different strategies for working with and appropriately benefiting children affected by trauma including maltreatment, however, open communication and building of trust and rapport were most commonly identified by participants as effective. The importance of supporting and building a relationship with not only the client, but the whole family was highlighted by multiple participants.

“Asking open ended questions as we work with parents, keeping an open mind, and I think just taking time to build the relationship and the trust with any student and family, that’s critical, even if there wasn’t trauma in the past, I think we really need to take that time.” (Interview 1)

“It’s really about meeting the needs of the whole family and supporting everyone.”
(Interview 3)

Participants also noted the importance of taking additional time to get to know the client with trauma exposure, and allowing client-centered strategies to allow for building of a relationship based on rapport and trust.

I had an hour-long evaluation time scheduled for today and I spent half an hour getting to know him, letting him move about the room, and showing me the things that he brought, so that would be different. With a kid that hadn’t had that trauma exposure or I

hadn't been informed, I would maybe spend 5-10 minutes gaining rapport." (Interview 2)

Other strategies noted for working with clients with trauma exposure included being mindful about sensory components, collaborating with other professionals, finding resources to support the child and family, and understanding how all factors of the client's life and conditions go hand-in-hand.

"Knowing that there's been trauma or anything in the past, we might want to tread lightly with various things. Understanding that maybe sensory systems are really different, that's a really common one. I really do think that sensory piece is one of the biggest parts of it." (Interview 1)

"I think it's really important to remember that there are other professionals and providers potentially working with this child, and ready to team with them, to have those open conversations, offering it to families. I think that's a really important part of our practice on a number of levels, especially when we have kiddos that are potentially seeing other providers or professionals, we want to be seen as a teammate with them, so that we're ready to collaborate and communicate." (Interview 1)

"I think first and foremost it's just finding as many resources as possible for the family and that may have nothing to do with speech. It's important to be really mindful that it all goes hand in hand. if a child isn't eating or sleeping and if they don't have that

attachment, nothing else is going to fall into place.” (Interview 3)

Theme 6: Mixed responses were given about potential challenges that may present when working with trauma-exposed clients.

All interview participants reported different challenges that may present as a result of working with clients who have been exposed to trauma. Challenges can definitely vary based on factors such as the traumatic event itself, age of the child, and how the event impacted the child.

Attachment and connection with both families and SLPs were mentioned several times as potential challenges, as SLPs can often be a source of adult connection and support for the child.

“Potentially building that trust, potentially behaviors and sensory regulation during sessions, developmental delays that are caused by that, or maybe some resistance to wanting to participate, or also attachment to parents.” (Interview 1)

“Their sometimes inability, or difficulty coming to school, to attending, and a lot of times, they want the adult connection more than they might want intervention, and so trying to balance that is a challenge.” (Interview 2)

“I had a couple of occasions where I was a trusted person at school, so in some instances, you become the contact person, and then of course in a school you’re bringing in the mental health team to support that process and really getting that student the help

they need.” (Interview 1)

Theme 7: All participants agreed that trauma-informed care is important within the field.

While each participant presented with different experiences, strategies, and opinions in regard to supporting children affected by trauma including maltreatment in speech-language pathology, all participants expressed a belief that trauma-informed care is important in the field.

“Yes, absolutely. What we do is whole-child. Whether it’s small speech articulation, or global developmental delays, social communication, any of those things, in every kiddo, we’ve gotta look at the whole child and how it’s impacting. Brain development doesn’t happen in little increments, it happens in a very integrative way, and our experiences are going to potentially impact it. If we are only looking at one part of a kiddo, potentially we’re missing things and we’re not going to make as much progress. Certainly trauma affects kids and families in ways that we may not even understand sometimes.” (Interview 1)

“Yes, because of the impact to speech and language development, particularly language development, I do think it’s very important, because language has been impacted because of the trauma. I think so often too, a child who has come from an environment of trauma, they haven’t received the rich language models, and the care that they need, and the direction that they need to develop language appropriately, so there’s often a lot of gaps to fill in.” (Interview 2)

“Definitely. It's not an option to say it's not my job, especially if we're seeing these kiddos or having relationships with the parents more so than our social workers would who may only come into the picture every 3 years to update that. I think building those relationships with our families and getting them to trust, and being the speech therapist is also being their friend. Just being an educator to them, I just feel like all that goes hand in hand.” (Interview 3)

Discussion

Previous literature has revealed a positive correlation between trauma exposure and speech and language deficiencies, so children who fall in this population are often referred to be involved in speech-language pathology services. Therefore, it is essential that clinicians in this field have an understanding of this relationship, as well as how to implement appropriate trauma-informed care. However, there is currently a lack of research in the field of Speech-Language Pathology regarding the understanding and implementation of appropriate practice when working with children who have experienced a variety of forms of trauma, including maltreatment.

This research reveals many details surrounding Speech-Language Pathologists' knowledge and views on the presence of the impact of trauma including maltreatment on speech and language skills, as well as trauma-informed practice and the implementation of trauma-informed skills within their respective practice. Overarching themes were identified to organize the data and interpret commonalities in responses. Speech-Language Pathologists' knowledge regarding the information collected in the literature review, including the relationship between

trauma including maltreatment and the development of speech and language skills reflected a presence to some degree. However, participants agreed upon a widespread lack of knowledge among Speech-Language Pathologists in this area based upon required education and training. SLPs acknowledged a growing knowledge base and awareness of this topic in recent years, pointing to potential improvements within the field. Among participants' workplace and setting, the extent to which they are informed about traumatic experiences varies, but extensive information is not usually given. This also varies based on the situation at hand and the family's willingness to share.

Many strategies were reported for implementing appropriate practice for children affected by traumatic experiences including maltreatment, with an emphasis on strategies such as building trust, rapport, and a safe, secure environment. Other strategies reported were providing resources to the child and the entire family, treading lightly with sensory components, and working collaboratively with other professionals involved. All participants agreed upon a shared understanding of the importance of trauma-informed education and practice within the field of speech-language pathology.

Study Strengths & Limitations

This study provides a thorough analysis of previous literature regarding the link between trauma including maltreatment and compromised speech and language skills. Many articles that were accessed reflect recent research and current information. In preparation for this study, participants were selected across a broad range of workplace settings and targeted age groups. Responses reflected a balance of commonalities and themes, as well as variation based on differing experiences. This study was conducted on a topic that is rising within the field of

research, but still requires a great contribution of further information and discussion.

However, many limitations are present in this research that could expand this study to encompass a broader range of information. This study was only conducted with 3 participants, all of which had similar years of experience in the field, and all residing in the state of Colorado. Interviewing professionals with varying experience may result in more variety in answers, based on the evolution of education and training as the topic of trauma-informed care in this field becomes more relevant. Speech-Language-Pathologists in varying locations may present with differing education, training, and experiences. Additionally, interviews were rather brief, and lasted between 15 and 20 minutes. Interviews were mostly structured, with minimal follow-up questions. Some interview questions were closed-ended and did not elicit as much information as open-ended questions. More representative and higher quantities of information could be gathered with longer, less structured interviews with more participants from different backgrounds.

Applications to Practice

The information gathered through this research can be applied to practice in the field of speech-language pathology by emphasizing the importance for SLPs to understand the relationship between trauma exposure and speech and language skills, and suggesting techniques for treating children who have been affected by trauma. This study can help to create a shared understanding of the importance of this issue, and encourage further research for application of trauma-informed care within the field. SLPs can benefit from this research by obtaining increased awareness of the importance of trauma-informed care, utilizing the techniques suggested by participants, and potentially utilizing this information towards advocacy.

Conclusion

The aim of this study was to obtain a better understanding of how children who have experienced trauma can receive the most appropriate and beneficial services in the field of Speech-Language Pathology, due to the prevalence of trauma history in children as it relates to speech and language development. Background research revealed information about the relationship between trauma including maltreatment and speech & language deficiencies. Qualitative virtual interviews conducted with Speech-Language Pathologists revealed themes reflecting commonalities in responses, such as similar background knowledge regarding the link between trauma exposure and speech & language skills, limited amounts of trauma-informed training, and techniques for appropriately treating children who have been affected by trauma. Potential study limitations include small sample size, minimal variation in years of participant experience and location, and short duration of interviews. The information gathered through this study can be applied to practice in the field of speech-language pathology by emphasizing the importance of trauma-informed education and suggestions for practice. Further research can expand on information in regard to this issue and provide more details about how trauma-informed care can actually be implemented in a realistic and appropriate way.

Appendix A

IRB Approval



Date: 11/02/2023
 Principal Investigator: Avery Liley
 Committee Action: **IRB EXEMPT DETERMINATION – New Protocol**
 Action Date: 11/02/2023
 Protocol Number: 2309052161
 Protocol Title: Implementing Appropriate Practice with Children Affected by Trauma in the Field of Speech-Language Pathology
 Expiration Date:

The University of Northern Colorado Institutional Review Board has reviewed your protocol and determined your project to be exempt under 45 CFR 46.104(d)(702) for research involving

Category 2 (2018): EDUCATIONAL TESTS, SURVEYS, INTERVIEWS, OR OBSERVATIONS OF PUBLIC BEHAVIOR. Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by 45 CFR 46.111(a)(7).

You may begin conducting your research as outlined in your protocol. Your study does not require further review from the IRB, unless changes need to be made to your approved protocol.

As the Principal Investigator (PI), you are still responsible for contacting the UNC IRB office if and when:



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- You wish to deviate from the described protocol and would like to formally submit a modification request. Prior IRB approval must be obtained before any changes can be implemented (except to eliminate an immediate hazard to research participants).
- You make changes to the research personnel working on this study (add or drop research staff on this protocol).
- At the end of the study or before you leave The University of Northern Colorado and are no longer a student or employee, to request your protocol be closed. *You cannot continue to reference UNC on any documents (including the informed consent form) or conduct the study under the auspices of UNC if you are no longer a student/employee of this university.
- You have received or have been made aware of any complaints, problems, or adverse events that are related or possibly related to participation in the research.

If you have any questions, please contact the Interim IRB Administrator, Chris Saxton, at 970-702-5427 or via e-mail at chris.saxton@unco.edu. Additional information concerning the requirements for the protection of human subjects may be found at the Office of Human Research Protection website - <http://hhs.gov/ohrp/> and <https://www.unco.edu/research/research-integrity-and-compliance/institutional-review-board/>.

Sincerely,
Michael Aldridge
Interim IRB Administrator

University of Northern Colorado: FWA00000784

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