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The Effects of Early Language Deprivation on Deaf Adults' Interpersonal Relationships

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Walden University
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Abstract

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MS, Walden University, 2017

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Proposal Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Psychology

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Abstract

Within the United States, 90 to 95% of Deaf individuals are born to hearing parents who have little to no experience with deafness, Deaf culture or the Deaf community. Due to a multitude of factors, these individuals typically grow up with limited access to a complete language until they reach kindergarten or later. Additionally, American Sign Language (ASL)-based resources are rare or non-existent in most areas of mainstream living. Using a phenomenological method of inquiry, the study illuminated the lived experiences of early language deprivation for Deaf American adults in relation to their ability to cope with deaf-specific trauma during adulthood. Using Sullivan's interpersonal theory of personality, the study attempted to shed light on the lived experiences of Deaf trauma survivors who suffered early language deprivation. It also helped to determine what role early interpersonal relationships play in developing coping skills during adulthood. Five Deaf American adults who grew up with hearing parents or guardians were interviewed in a one-to-one, structured interview over Zoom and Zoom chat. Thematic coding and bracketing was then utilized to code the research data. The study revealed superordinate themes of stress, support, and coping. The target population was found to deeply rely on their social connections or interpersonal relationships as a means coping with traumatic situations, stress, and anxiety. The results of this study could provide positive social change to community health organizations, schools and Deaf activist groups with evidence supporting greater access to ASL based resources for Deaf or hard-of-hearing individuals.

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Dedication

I would like to dedicate this dissertation to Judith A. Meighan and Doris J. Last.

Acknowledgments

I would like to thank my husband for his immense support in my dissertation journey. Without him, I would never have made it through all the late nights, tears, and hard work. He truly is the best. I would like to acknowledge my daughter, Maggie, and my son, Teddy. Remember that you are only limited by the ceilings you set for yourself. I would like to thank my father and mother. They have always encouraged me to go beyond what I thought was possible for myself.

Last, I would like to thank Dr. Rarick and Dr. Glidewell for their guidance throughout my doctoral degree and dissertation journey. They are an inspiration, both professionally and as educators.

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Chapter 1: Introduction to the Study

Introduction

Early interpersonal relationships, such as those between a mother and child, are pivotal to a child's development. These early relationships can be positive in that they can help to push the child forward in terms of language acquisition, acceptance, and self-reliance (Park & Yoon, 2018). For a majority of individuals, communication and language acquisition begin at birth (Skotara et al., 2012). However, for some individuals, such as those who are born deaf or hard-of-hearing, language acquisition can occur as late as 12-years-old (Hall, 2017). Based on the current literature, there is very little information pertaining to the experiences of Deaf American adults who have lived through early language deprivation, and how it impacts their ability to cope with deaf-specific traumas in adulthood (Anderson et al., 2008).

Research related to early language deprivation and interpersonal relationships in deaf and hard-of-hearing individuals is needed for multiple reasons. First, it increases the current body of knowledge. Second, it helps to justify the need for greater access to ASL based resources. Last, it has the potential to illuminate areas within physical and mental health where greater support is needed for deaf and hard-of-hearing individuals.

In this chapter, I provide an overview of the research problem and purpose for the study. I will also provide background information and define terms that are relative to the subject. Last, I will briefly discuss the scope and any limitations that may impact the way that the study is viewed or interpreted. It is my hope that the research will provide a greater understanding of the problems that presently exist for the target population and encourage a positive social change.

Background

In the United States, “90 to 95 percent of deaf children are born to hearing parents who have little or no experience with deafness, Deaf culture or the Deaf community” (Anderson et al., 2016). Of these children, a majority will grow up with little to no language intervention until they begin kindergarten at the age of five (Skotara et al., 2012). As a result, the children who are not fully immersed in language from birth are at a higher risk of developmental delays (Bailes et al. 2009; Hall, 2017). Additionally, they may experience difficulties in school and at home.

To differentiate individuals who identify as culturally Deaf, the ‘D’ in Deaf will be capitalized. Culturally Deaf individuals can include those who are profoundly deaf, as well as individuals who have a limited range of hearing. When discussing individuals who do not identify as culturally Deaf or with the Deaf community the ‘d’ in deaf will be lowercase. When the term deaf is used, it is referring to individuals who have profound or complete hearing loss in one or both ears. Individuals who are deaf may not have access or a desire to join the Deaf community (WHO, 2021). This difference is significant as it delineates between describing someone’s cultural identity and describing a physical trait.

Based on the current literature, there is very little information pertaining to the experiences of Deaf American adults who have lived through early language deprivation, and how it impacts their ability to cope with these deaf-specific traumas in adulthood (Anderson et al., 2008). Additionally, there is an increased need to understand the help-seeking and coping behaviors for deaf-specific trauma survivors (Anderson et al., 2017; Anderson et al., 2016). Gaining more insight into these lived experiences is valuable in that they could illuminate any deficits in access to American Sign Language (ASL) based resources. Additionally, it would help provide clarity surrounding deficits in medical or mental health providers who are familiar with ASL, Deaf culture, and the Deaf community. In this chapter, I will be discussing the purpose of the study, conceptual frameworks, and the overall significance of the research. I will also be illuminating any limitations and the scope of the study.

Problem Statement

Deaf individuals and the Deaf community have a significant problem with a lack of accessible, ASL based resources. It is common for hearing parents of deaf children to have difficulty accessing resources related to learning ASL or about the Deaf community (CDC, 2007; Fernandes & Meyers, 2010). As adults, deaf individuals are subjected to a lack of access to signing health providers, schools, and basic resources taken for granted by the hearing majority population (Anderson et al., 2016). When having to cope with the deaf-specific traumas associated with being deaf raised in a hearing world, there are no available trauma assessments scales or empirically-based treatments available to deaf individuals (Anderson et al., 2016). This means that deaf trauma survivors who seek mental healthcare are not able to be treated with evidence-based methods. By learning about the experiences of Deaf trauma survivors, areas for improved, culturally appropriate, and language accessible resources can be illuminated.

On a global scale, this research could help cause positive social change through helping global governments to understand the struggles of deaf individuals growing up deaf in a hearing world. On a community scale, this research could go out to community health organizations, schools, and Deaf activist groups in order to help make ASL resources more accessible to Deaf or hard-of-hearing families. On an individual level, this research could help to improve the lives of deaf individuals by revealing the injustices of audism.

Purpose of the Study

The purpose of my phenomenological study was to understand the lived experiences of early language deprivation for Deaf American adults and how it impacts their ability to cope with deaf-specific trauma. Using an interpersonal lens, I focused on how Deaf adults' early relationships made during their experience of early language deprivation have shaped their development of trauma support networks during adulthood.

Research Questions

The purpose of the following research questions is to better understand the experiences of Deaf American adults related to communication with their primary families while growing up, and their latter ability to cope with traumatic events.

RQ1: What are the lived experiences of Deaf trauma survivors who suffered early language deprivation?

RQ2: What role do early interpersonal relationships play in the development of trauma coping skills for Deaf adults?

Theoretical Framework

First proposed by Sullivan in 1953, the interpersonal theory of personality posits that personality is developed through repeat interactions with other individuals. This theory also suggests that individuals can simultaneously affect one another's behavior during these interactions (Horowitz et al., 1991; Sharfstein, 1998; Sullivan, 1953). Over time, these interactions influence the development of one's personality. In some cases, repetitive interactions can lead to disordered behavior development. A more detailed explanation of Sullivan's (1953) interpersonal theory of personality can be found in Chapter 2.

The interpersonal theory of personality relates to the research questions in that it helps to provide a lens for the study. Deaf children often have strained relationships with their immediate families due to communication barriers between the child and the other family members (Barbosa et al., 2016). Without evidence-based trauma assessments or treatments, deaf individuals are forced to find other, non-professional means of coping with trauma. The interpersonal theory of personality provides a basis from which to understand the experiences of deaf trauma survivors and their various methods of coping during adulthood.

Nature of the Study

I used a phenomenological, qualitative method of inquiry. This research tradition is the most appropriate for my study because I examine a particular phenomenon, early language deprivation, through one-to-one, conversational interviews. In doing so, it was my hope to find deeper meaning within their experiences and reveal areas for further study (Creswell, 2013). My target population was the sociocultural Deaf population. In total, I intended to interview between five and 12 participants to reach saturation of information (Creswell, 1998). Data were gathered through one-to-one interviews over Zoom in-meeting chat. Data were transcribed by hand and then organized in NVivo. I coded the data for different themes and ideas. Through the use of thematic coding and bracketing, I worked to find any commonalities in experiences between the participants of the study.

Definitions

Children of Deaf adults (CODA): Children who were raised in the Deaf community and have at least one Deaf parent.

Critical neurodevelopmental period: A span of time between birth and five years of age in which language processing pathways are formed (Hall et al., 2017).

Culturally Deaf: A social-cultural identity that describes individuals who are deaf, hard-of-hearing, or children of Deaf adults (CODA) who are members of the Deaf community.

deaf: Denoted by the lowercase ‘d,’ this term refers to an individual who is profoundly deaf in one or both ears and does not identify with the cultural Deaf community (WHO, 2021).

Deaf-specific trauma: A trauma that is directly related to the experience of being d/Deaf. This type of trauma can include communication deprivation with one’s parents or siblings and experiencing difficulty receiving care at a hospital during a health-related emergency (Sirch et al., 2017).

Dinner table syndrome: Describing when a deaf or hard-of-hearing individual is left out or excluded from conversations that occur in common daily situations (Hall et al., 2017; Hauser et al., 2010).

Early language deprivation: A phenomenon that occurs when an individual is not exposed to a complete language during the critical neurodevelopmental period (Hall et al., 2017).

Help-seeking behaviors: “Any action of energetically seeking help from the health care services or from trusted people in the community and includes understanding, guidance, treatment and general support when feeling in trouble or encountering stressful circumstances” (Umubyeyi, 2016, p. 83).

Manualism: A method of education that focuses exclusively on using sign language as a way to communicate and educate deaf individuals (Padden, 1999; Van Drenth, 2003).

Oralism: A methodology that was designed to teach deaf and hard-of-hearing children to rely exclusively on speaking, lip reading, and mouth shapes (Ellis, 2014).

Profoundly deaf: Described by the World Health Organization (2021) as the physical condition of complete or profound hearing loss “in one or both ears at the 81 dB or greater hearing threshold” (para. 1).

Assumptions

The first assumption made was that any research bias will be resolved prior to the completion of the data analysis. I acknolwedge that multiple realities exist in qualitative research: that of the researcher, the participant, and the reader (Given, 2008). However, in qualitative research, the subjective reality that must remain the focus is that of the participant. The second assumption was that participants are giving a truthful account of their experiences pertaining to each question that is asked. Part of this assumption encompassed that participants have a genuine interest in participating in the study. The participants did not benefit from participating in the study through financial or academic means. Thus, it is assumed that their motivation to participate was self-driven and genuine in nature. Another assumption was that the inclusion criteria chosen for this study are accurate. After completing an exhaustive literature review, it was assumed that the participants of the study all had similar experiences related to the phenomenon in question. Last, I assumed that participants eventually learned to speak a language fluently.

Scope and Delimitations

The sociocultural Deaf population can include individuals who are profoundly deaf or hard-of-hearing and self-identify with the Deaf community. The Deaf population is unique in that it experiences phenomena directly related to being Deaf in a hearing world. To better understand their experiences, participants had to be members of the Deaf community. Participants were required to be at least 18 years of age and should have grown up with hearing parents or guardians. Because the study was limited to Deaf individuals who grew up with hearing parents or guardians, the data did not necessarily reflect Deaf individuals who grew up with Deaf parents. Additionally, this study focused on the experiences of language deprivation and interpersonal relationships early in life. It did not encompass the experiences of d/Deaf adults who have never reached fluency in a language.

Limitations

There were some limitations to the proposed study. First, the interviews were primarily conducted in written English. Within the Deaf community the accepted primary language is American Sign Language (ASL). This could have created some validity issues within the data because some concepts may not have translated directly between ASL and written English. To mitigate this issue, I used member checks to ensure that the data gathered are as accurate as possible (Saunders et al., 2017). Second, interviews were conducted virtually via Zoom. This could have limited possible participants who did not have access to the internet or a computer.

Significance

This study has the potential to illuminate areas in the fields of psychology and public health where a large majority of the deaf individuals may require greater support. Increased access to ASL-based resources for families of deaf children is necessary to provide the greatest chance for a deaf child to acquire a complete language. By learning about the lived experiences of Deaf Americans and their interpersonal relationships in early childhood, it is possible to draw connections between those early experiences and coping behaviors in adulthood.

On a community scale, the results of this study could be given to schools, local government, and community health centers. The data that were gathered could act as a means of scholarly support validating the need for greater access to ASL based resources, interpreters, and health providers. On an individual level, this research could help to improve the lives of d/Deaf individuals through revealing the injustices of audism.

Conclusion

Within the United States, early language deprivation is a phenomenon that is most prevalent among deaf and hard-of-hearing individuals who have hearing parents (Anderson et al., 2016). Understanding how this experience impacts d/Deaf individuals as adults is imperative to improving access deficits for this population from the start. Through this study, it was my hope to provide further evidence of the need for greater access to ASL based resources in mental health and healthcare settings. I also hoped to illuminate additional areas for study with the goal of creating a positive social change.

Chapter 2: Literature Review

Introduction

Approximately 90 to 95 percent of deaf children in the United States are born to hearing parents who have little or no experience with deafness or Deaf culture (Anderson et al., 2016). Additionally, deaf individuals may experience traumas that are unique to being a deaf individual raised in a hearing world (Anderson et al., 2016). Some of these traumas can include no or limited communication with parents, no or limited communication access at the hospital, and witnessing parental grief when deafness is diagnosed. The purpose of this study was to understand the lived experiences of early language deprivation for Deaf American adults and how it impacted their ability to cope with deaf-specific trauma. Chapter 2 includes the literature search strategy that was used to conduct research on the topic. It also includes the theoretical foundation from which the literature review was conducted.

Literature Search Strategy

The library databases included in this literature search are the following: PsycINFO, PsycARTICLES, SAGE Journals, ProQuest, PubMed, Oxford University Research Archive, Google Scholar, and Walden Dissertations. The keywords that were used while searching through these databases include *deaf, trauma, language deprivation syndrome, language development,* and *sign language*. All searches were limited to a six-year span.

Theoretical Foundation

The interpersonal theory of personality was first proposed by Sullivan (1953) as a way of describing the development of disordered behaviors. This theory posits that individuals can simultaneously impact one another's behaviors during an interaction (Horowitz et al., 1991; Sharfstein, 1998; Sullivan, 1953). Over time, these interactions influence the development of one's personality. In some cases, repetitive interactions that create anxiety within the individual can lead to disordered behavior development.

Horowitz et al. (1991) used the interpersonal theory of personality to categorize interpersonal behaviors into two major dimensions: power and affiliation. Power is described on a scale from submissive to dominant, whereas affiliation describes behaviors on a scale from hostile to friendly. In one study, Deaf participants reported being punished as children by caretakers for using American sign language (ASL) (Anderson et al., 2016). In this instance, the caretakers' behaviors could be described as hostile dominant as the caretaker is withholding interpersonal interaction as a form of punishment. In this instance, the participant would typically present with the complimentary submissive behavior. The hostile dominant behavior could create anxiety and tension for the Deaf individual. To avoid the interactions that caused anxiety, disordered behaviors may develop. Ultimately, withholding interpersonal interactions as a form of punishment was found to negatively impact contextual learning and pragmatic behavior development in the individual taking on the submissive role (Zaidman-Zait & Dotan, 2017).

The interpersonal theory of personality provides a rationale for linking interpersonal behaviors and personality development. This theory relates to my research questions in that it provides context for understanding the development of trauma coping skills and early interpersonal relationships in Deaf adults. By understanding this connection, one can illuminate areas for further study or creating positive social change.

Review of the Literature

Early Language Deprivation

Early language deprivation is a phenomenon that occurs when an individual is not exposed to a complete language during the critical neurodevelopmental period in which language processing pathways are formed (Hall et al., 2017). According to one study conducted by Henner et al. (2016), acquisition of a complete language should occur from birth. However, in populations where language deprivation is prevalent, it is recommended that children are exposed to a complete language in an academic context by the age of five-years-old.

From a neurological perspective, one study examined the effects of early language deprivation on language pathway development (Cheng et al., 2019). Through a quantitative method of inquiry, researchers found that individuals who experienced early language deprivation had altered white matter within the brain impacting their left dorsal pathway when compared to the control group. In this case, the control group consisted of individuals who were exposed to either spoken English or ASL from birth. One of the main purposes of the left dorsal pathway is to help facilitate language and speech. Researchers found that regardless of the language modality, both visual-oral and sensory-motor acquisition from birth resulted in the same neurodevelopment of the left dorsal pathway (Cheng et al., 2019). This finding was important because it negates the popular belief that learning a language via sensory-motor acquisition would harm the brain's ability to process auditory language (Henner et al., 2016).

Many medical professionals were concerned that if a deaf or hard-of-hearing child was taught sign language prior to having a cochlear implant placed that he or she would be unable to fluently learn spoken English (Davidson et al., 2014; Henner et al., 2016). However, Cheng et al. (2019) determined that learning a complete language through sensory-motor or visual-oral input made no difference in terms of left dorsal pathway development when acquired during the critical neurodevelopmental period. Conversely, when a complete language is not acquired until after the critical neurodevelopmental period, analogical reasoning skills, syntactical language, and activation within language areas of the brain are negatively impacted (Cheng et al., 2019; Henner et al., 2016).

Cheng et al. (2019) also recommended that future research focus on how the experience of early language deprivation impacts neural outcomes. For example, the authors implied that different experiences of early language deprivation could have an impact on the development of language pathways within the brain. Age of language acquisition, family support, and trauma related to early language deprivation, could all be possible experience-based variables that factor into one's development (Cheng et al., 2019).

Language deprivation is very rare in most populations; however, the Deaf population is one exception. Only five to 10 percent of deaf individuals are born to Deaf parents (Anderson et al., 2016). This small group within the greater Deaf population is significant because these individuals are the most likely to grow up fully immersed in a complete language, ASL, from birth. In terms of development, this group of individuals will develop a left dorsal pathway that looks identical to that of hearing children who were born to hearing parents (typical development) because of this exposure (Cheng et al., 2019; Skotara et al., 2012). A Deaf child who is born to Deaf parents will develop analogical reasoning skills, use syntactical language appropriately, and progress in school at the same rate as his or her typical development peers (Hall et al., Dye, 2018; Humphries et al., 2016).

The remaining 90 to 95 percent of this population is subjected to varying points of entry in terms of language acquisition (Anderson et al., 2016; Cheng et al., 2019; Henner et al., 2016). For some deaf or hard-of-hearing individuals, they may not be exposed to a complete language until they receive a cochlear implant at the age of three (Humphries et al., 2012). For others, kindergarten will be their first exposure to language. In some cases, Deaf individuals have not been exposed to a complete language until the age of 12 or later resulting in significant language dysfluency (Hall, 2017; Hall et al., 2017; Hernandez & Li, 2007). For these individuals, there are significant differences in connectivity within speech areas of the brain. Deaf children born to hearing parents have been found to struggle with contextual learning and pragmatic behavior development (Zaidman-Zait & Dotan, 2017). Lastly, these individuals may never preform academically at the level of their peers who had been immersed in a complete language from birth.

Communication

The decision as to how best to provide access to language for deaf and hard-of-hearing children is widely debated among parents of deaf children, the Deaf community, researchers, and medical professionals (Napoli et al., 2015; Sugar & Goldberg, 2015; Szagun & Stumpter, 2012). Prior to the birth of technology-based hearing devices such as cochlear implants or hearing aids, two methodologies for educating and communicating with deaf and hard-of-hearing children dominated the field: manualism and oralism.

Manualism

Manualism focuses on exclusively using sign language as a way to communicate and educate deaf individuals (Padden, 1999; Van Drenth, 2003). Manualism was first used in France during the 1700's. Early versions of manualism combined regional French signs with a one-handed alphabet to fingerspell words in the French language. Later, a man by the name of Thomas Hopkins Gallaudet would visit the French school where this method was first used and bring the concept back to be used in the United States (Van Drenth, 2003). Gallaudet opened a school for the deaf in Martha's Vinyard in 1817. Since, Gallaudet has been credited with developing the modern version of ASL, a combination of the regional Martha's Vinyard signs that his students used with French sign language. Manualism and ASL were widely used for deaf education until the 1860's.

Oralism

Oralism is a pedagogical methodology that was designed to teach deaf and hard-of-hearing children to rely exclusively on speaking, lip reading, and mouth shapes (Ellis, 2014). Some researchers believe that it may have been used in other countries as early as the 1500’s (Padden, 1999). However, oralism did not become popular within the United States until the 1860’s (Ellis, 2014; O’Connell, 2018).

Some studies have revealed a tumultuous past related to oralism being used in schools for the deaf (Ayim, 1997; Ellis, 2014; O’Connell, 2018). One qualitative study interviewed deaf alumni from a Catholic, faith-based, boarding school for the deaf in Ireland (O’Connell, 2018). According to the individuals who were interviewed, it was commonplace for students at this school to be punished when caught signing. Additionally, as punishment, the students who were caught would either be hit on the hands with a ruler or forced to go to confessional and use speech to confess their sins. In this instance, the sin that they were forced to confess to was using sign language when it was considered forbidden by the school. O’Connell (2018) states that this practice was a way of encouraging deaf children to use speech. The author also states that this practice worked as a way to gain compliance from the children. The school enforced the notion that signing was ‘bad’ and required one to confess his or her wrongdoing. However, through a spoken confession, the individual was absolved of their wrongdoing. Thus, English would be considered to be “good” (O’Connell, 2018).

One argument for oralism’s discouragement of sign language was the belief that teaching sign language to a deaf child would interfere with his or her ability to successfully acquire spoken language (Cheng et al., 2019; Ellis, 2014; O’Connell, 2018). However, recent empirical evidence has found that acquiring a complete visual language during the critical neurodevelopmental period does not interfere with the acquisition of an auditory language (Davidson et al., 2014; Hall, 2017; Henner et al., 2016).

The literature surrounding the transition from the use of manualism to oralism reveals many politicisms and inequities (Padden, 1999; Van Drenth, 2003). Prior to the United States' civil war, males dominated teaching positions in both public schools and schools for the deaf (Van Drenth, 2003). Males were typically paid more than females, sometimes as much as twice the average female salary. Around the same period, it was thought to be more socially acceptable for the deaf children of upper-class, wealthy families to be able to lip read and speak clearly (Ellis, 2014). With a rise in pupils being sent to boarding schools for the deaf and the ongoing American civil war, more women were being hired to teach deaf children. Women could be paid less than their male counterparts and were ultimately expected to teach a higher number of children per class. Shortly after the rise in female professors within the United States, Alexander Graham Bell made an announcement at a leading international conference that oralism was the superior method for educating deaf children (Van Drenth, 2003). This moment was significant in that it marks the mass transition from manualism to oralism in schools for the deaf. It was not until the late 1900's that other methods of deaf education and communication became popular (Davidson et al., 2014; Hall, 2017; Humphries et al., 2012).

Modern Communication Methods

Modern methods, primarily derived from oralism and manualism, of communicating with deaf and hard-of-hearing children include cued speech, American sign language, listening and spoken language (LSL), or a combination of multiple methods (Napoli et al., 2015). Studies show that hearing families are frequently choosing to use the LSL method, which is most used with individuals who have cochlear implants (Napoli et al., 2015; Sugar & Goldberg, 2015). This method focuses on teaching individuals how to listen and decode the input that they are receiving from a cochlear implant or other technological device. This method is advocated for by the A.G. Bell Association for the Deaf and Hard-of Hearing and is closely related to the older method of oralism. For some families of deaf children, this method is considered to be very successful. However, the research reveals that technology-based interventions as a standalone means of gaining access to auditory language is not enough to insure sufficient language acquisition or fluency (Hall, 2017). Researchers have found that the success rate of language fluency in individuals who use cochlear implants as a standalone method for accessing auditory language is highly inconsistent (Davidson et al., 2014; Hall, 2017; Skotara et al., 2012). This suggests that there are other variables that may be impacting an individual's language acquisition.

Relationships

A child's language development is largely impacted by the social and developmental choices made by his or her parents or guardians (Hall et al., 2017). For a deaf child, access to a spoken language versus a visual language can make a significant difference in terms of language fluency and his or her overall fund of knowledge (McKee et al., 2015; Hauser et al., 2010). Additionally, the literature discusses relationships with one's parents, grandparents, and siblings as significant factors contributing to a deaf child's language acquisition and behavior (Barbosa et al., 2016; Bowen, 2016; Park & Yoon, 2018).

Early Relationships

One of the most significant relationships within the literature was between the mother and the deaf child (Park & Yoon, 2018). The mother was repeatedly described as the primary educator and protector of the deaf child (Barbosa et al., 2016; Park & Yoon, 2018). While developmental and language-based choices were often shared between both the father and mother, the mother was seen as primarily responsible for carrying out educating and providing access to language to the child when not at school. In many situations, this relationship can be a positive one that helps to propel the child forward in terms of language acquisition, acceptance, and self-reliance. In other situations, the mother/child relationship can be extremely limiting to the deaf child.

In one example, the level of stress that the mother felt in relation to her child impacted her attachment and involvement with the child (Park & Yoon, 2018). If the mother felt a high level of stress in relation to the deaf child or his or her diagnosis of deafness, she was more likely to have a weaker attachment with her child. The weaker the bond, the less likely the mother was to be involved in educating and communicating with her child. Similarly, this was found to be true among mothers of children with disabilities (Hosseinkhanzadeh et al., 2014). Deaf children were found to have more significant behavioral problems and difficulty in school when their parents were unwilling or unable to provide them with the appropriate access to a complete language during the critical neurodevelopmental period.

In situations where the mother was unable or unwilling to educate the deaf child, the role of educator often falls on the grandparents (Barbosa et al., 2016). Grandparents typically take on the role of assistants to the parents of the deaf child. When there is congruence between the parent and grandparents in terms of what is being taught, the deaf child will often feel more confident in that what he or she is experiencing is true. However, when the role of educator is not able to be filled by the mother, the grandparents will often step in to fill the role of educator for the deaf child (Barbosa et al., 2016).

Dinner Table Syndrome

Typical development children can learn from the conversations and passive information that they receive in everyday settings, such as at school or home. For the majority of deaf individuals, however, they will experience a phenomenon called “dinner table syndrome.” This term is used to describe when a deaf individual is left out or excluded from conversations that occur in common daily situations (Hall et al., 2017; Hauser et al., 2010). Where a typical development child is able to learn from passive information, deaf children who are born to hearing parents are forced to rely on other family members or peers to directly relay the information to them.

For example, a child may be sitting at home with his or her siblings when one of the siblings asks if anyone would like to have his or her extra piece of candy. A typical development child might experience this situation, take in any passive information, and learn how to appropriately respond based on how his or her older siblings behave. However, for a child who is deaf, he or she often has a different experience of the same scenario (McKee et al., 2015). The deaf child may not have been looking at his or her sibling when the question was asked and missed the interaction completely. Another common outcome of this scenario would be for the deaf child to be disregarded by their family members when asking what was said. It is suggested that deaf children in hearing families often lack the regular exposure to language and passive information that would help to develop more complex language, an understanding of commonly accepted social norms, healthy responses to emotions, and more as a result of dinner table syndrome (Hauser et al., 2010; Humphries et al., 2016).

Deaf Specific Trauma

The Deaf population has been found to experience trauma throughout their lifetime at a rate that is two times higher than their hearing peers (Anderson & Leigh, 2011; Anderson et al., 2017). Through various qualitative studies, researchers found that common traumas experienced in the Deaf community included intimate-partner violence, communication abuse, and traumas that were specific to living as a Deaf individual in a hearing-based world (Anderson et al., 2016; Anderson et al., 2017; Sagone, 2017). Some of these deaf-specific traumas can include communication deprivation with one’s parents or siblings and experiencing difficulty receiving care at a hospital during a health-related emergency (Sirch et al., 2017).

Health related Emergencies

Several studies have analyzed the experiences of Deaf individuals while being treated in in-patient settings at hospitals across the United States (Øhre et al., 2015; Sheehan, 2000; Sirch et al., 2017). These studies revealed that Deaf individuals experienced an increased sense of vulnerability when going to the hospital. A significant source of stress has been shown to revolve around a lack of understanding and needs not being met with the appropriate reciprocal care (Sirch et al., 2017). While Deaf participants have identified that they do not expect all healthcare workers to learn ASL, they do expect them to have a basic understanding of deafness and culturally competent care (Sheehan, 2000; Sirch et al., 2017).

One qualitative study by Sirch et al. (2017), discussed a participant's experience stating that the participant went to the emergency room with his hearing mother. The nursing staff would not allow the participant's mother to come with him even though she had identified the participant as being deaf to the nursing staff. The participant reported that he sat in triage for several hours because no one told the new nurse at the shift change that he was deaf. When the participant came up to inquire about when he would be seen, the nurse asked him why he did not come up when she had called his name earlier. Because of the increased sense of vulnerability when in a hospital setting and the lack of culturally competent care, Deaf individuals have typically preferred to go to the hospital with another person as a source of advocacy and support (Sirch et al., 2017). In this situation, the participant was not experiencing a life-threatening situation; however, many deaf individuals remain in fear of what could happen if they end up in this situation with a potentially life-threatening health problem.

The Americans with Disabilities Act (ADA) requires that all deaf individuals be provided with reasonable accommodations (ADA, 2003). While it may be appropriate for a nurse to write down on a slip of paper that they will be conducting routine lab work for a deaf patient to read there are some situations where an ASL interpreter is necessary. In situations such as when the individual's reason for coming to the hospital, medical history or consent is being obtained, the hospital should provide the individual with an interpreter (Sheehan, 2000). This right should be extended to family members if they are a primary caretaker of the patient; although, it is still common for situations to exist where adequate accommodations are not provided. Deaf individuals are often forced to provide their own interpreter, such as a hearing family member, when going to the hospital. In some situations, no accommodations are provided at all (Øhre et al., 2015; Sheehan, 2000; Sirch et al., 2017). In situations where no accommodations are provided, the deaf individual is unable to be an active participant in his or her medical decision making.

Help-seeking

While typical development individuals are more likely to seek out formal treatment after the experience of a traumatic event, Deaf individuals rely heavily on the Deaf community and Deaf role models for informal support (Anderson et al., 2017). Researchers believe that this behavior could be attributed to several factors (Anderson et al., 2017; Øhre et al., 2015). First, historically, many schools for the deaf were and remain residential. Children spend most of their time with their peers who also share a common language. As deaf children grow up in residential schools, they develop a bond with their peers rather than their parents or guardians at home. These bonds eventually develop into adulthood. In some cases, they have expanded into regionally specific subgroups within the Deaf community (Øhre et al., 2015).

Conversely, for children who remain in the home with their hearing families, communication is severely limited or non-existent (Anderson et al., 2017; Øhre et al., 2015). Whether purposefully or by accident, many deaf children who are born into hearing families do not have the same opportunities to discuss negative experiences like their hearing peers. In some instances, deaf individuals have expressed that they never knew the benefits or had the experience of discussing potentially traumatic events or situations with other individuals (Øhre et al., 2015). Thus, they are left to find their own ways to cope with trauma.

Conclusion

Throughout the literature review, communication, relationships, and trauma were reoccurring, overarching themes interwoven in the research. Studies revealed that a large majority of deaf and hard-of-hearing individuals are subjected to varying levels of early language deprivation (Hall, 2017; Hall et al., 2017; Hall et al., 2018). In addition to physiological changes, when a complete language is not acquired until after the critical neurodevelopmental period, analogical reasoning skills, syntactical language, and activation within language areas of the brain become negatively affected (Cheng et al., 2019; Henner et al., 2016). Naturally, the ability to communicate has become a very important platform for the Deaf community as well as deaf and hard-of-hearing individuals who do not associate with the Deaf community. The ability to communicate through a complete language allows for greater success in school and more self-sufficiency throughout life (Humphries et al., 2016; Sagone, 2017; Skotara et al., 2012). Conversely, when language access is restricted, whether accidentally or purposefully, traumas related to being deaf in a hearing world can begin to arise (Anderson et al., 2017).

Anderson et al. (2016) suggests that future research should be conducted surrounding the Deaf population and trauma survivors. Of the current research available, most of the studies were conducted with extremely limited sample sizes or were restricted to a rural area (Anderson et al., 2016; Anderson et al., 2017). Because samples were so limited, little is currently known related to experiences with early language and the ramifications of those experiences later in life (Cheng et al., 2019; Hall et al., 2018). Additionally, more information is needed pertaining to the phenomenon of early language deprivation (Hall et al., 2017).

The present study fills in the gap related to the early language experiences of the Deaf population and trauma survivorship. Using an interpersonal lens, I focused on how Deaf adults' early relationships, such as those with their parents, siblings or guardians, and their experience of early language deprivation have shaped their development of trauma support networks in adulthood. Gaining more insight into these lived experiences is valuable in that it helps to illuminate deficits in access to American Sign Language (ASL) based resources, and medical or mental health providers who are familiar with ASL, Deaf culture, and the Deaf community.

Chapter 3: Research Method

Introduction

This study was conducted using a phenomenological method of inquiry. According to Creswell and Poth (2018), the purpose of a using a phenomenological approach is to gather the lived experiences of individuals surrounding a particular phenomenon. “[Phenomenological] study requires valuing the evidence of everyday life; it is through the close examination and reflection of this life that its meaningfulness and significance is made known” (Eatough & Smith, 2017, p.23).

Early language deprivation is a phenomenon that is not frequently experienced in the United States (Hall et al., 2017). However, due to a variety of factors, Deaf individuals experience this phenomenon at a rate that is much higher than other sociocultural groups. The purpose of this study was to understand the lived experiences of early language deprivation and how interpersonal relationships have impacted the development of trauma coping skills in Deaf American Adults. Within this chapter, I explain the overall research design and rationale for my study. I also discuss the population and method of participant selection. Lastly, I will be discussing ethical considerations for conducting the study.

Research Design and Rationale

The research questions were designed to explore Deaf American adults’ experiences involving communication with their primary families while growing up, and their later ability to cope with traumatic events. The questions are the following:

RQ1: What are the lived experiences of Deaf trauma survivors who suffered early language deprivation?

RQ2: What role do early interpersonal relationships play in the development of trauma coping skills for Deaf adults?

Using the lens of the interpersonal theory of personality, the central phenomenon that is examined is the experience of early language deprivation. Early language deprivation occurs when an individual is not exposed to an accessible and complete language during the critical neurodevelopmental period (Hall et al., 2017). The interpersonal theory of personality suggests that interactions between two people, such as a parent and a deaf or hard-of-hearing child, will eventually influence the development of one's personality (Sullivan, 1953). The current body of literature is very limited in terms of information surrounding the connection between language deprivation and interpersonal relationships for individuals who are deaf or hard-of-hearing. Earlier studies, such as one conducted by Anderson et al. (2016) and Barbosa et al. (2016), utilized a qualitative method of inquiry. Anderson et al. (2016) recommended further research be conducted involving the Deaf population, larger sample sizes, and qualitative methods. The reason for this was that there was some difficulty understanding the experiences of this population and narrowing down which variables were important to study further.

Moving forward in the study, I used a phenomenological, qualitative method of inquiry. This research tradition is the most appropriate for my study because I examine a particular phenomenon, early language deprivation, through one-to-one, conversational interviews. In doing so, it was my goal to find deeper meaning within their experiences and reveal areas for further study (Creswell, 2013).

Role of the Researcher

According to Sutton and Austin (2015), the role of the researcher in qualitative research is to understand a participant's subjective experience of a particular situation or phenomenon. This includes understanding collective thoughts and feelings within the participant group. The researcher should act as a safeguard from potential harm as a result of participating in the research.

I have designed and written the research questions, and I also conducted the conversational interviews via Zoom video conferencing software and analyzed the data. Then, I coded the data and sorted it using the NVivo software. I have no personal or professional relationships with my participant group. I initially established contact with the organizations that work directly with the Deaf population; however, my contacts at these organizations were not participants of the study. One recognized potential for a power differential is in the researcher-participant dynamic. As the person that conducted the interview, I could have been perceived as having power over the participant. To address this potential power differential, I included a statement within my informed consent document that let the participant know that they are not required to participate or complete the interview. Participants were notified that they could stop the interview at any time. Additionally, I allowed participants to review the transcripts of their interview. Participants were able to evaluate the transcript and provide any changes to responses or further clarification. I also acknowledge the potential for researcher bias to be present, as

I have friends within the Deaf community and have volunteered for non-profits that directly benefit local Deaf individuals. Researcher bias was mitigated through the use of respondent validation and bracketing (Birt et al., 2016).

Methodology

Participant Selection Logic

The population that I studied was the sociocultural Deaf population. This group could include individuals who were both deaf or hard-of-hearing but self-identify with the cultural Deaf community. To gather information-rich data, I used purposeful selection. According to Reybold et al. (2012), purposeful selection is an extremely valuable selection method in qualitative research as it allows the researcher to directly access individuals who have experiences or meet criteria that fit the purpose of the study. Other methods of participant selection, such as random sampling, did not make sense in this case.

To be selected for participation in my study, the participant must have met the following criteria. First, the individual must have been at least eighteen years old. Second, they should have been deaf or culturally Deaf. Third, participants needed to be fluent in written English. Last, participants must have experienced early language or communication barriers with their parents or guardians when they were young. Those who were interested in participating in my study filled out a brief questionnaire. If they met the criteria above, then I contacted them directly to schedule a time to conduct the interview via Zoom.

For this study, I estimated that I would need between five and 12 participants to reach saturation. According to Creswell (1998), qualitative researchers should have between five and 25 participants. Morse (1994) stated that qualitative phenomenological studies require only six participants. If saturation was not reached between five and 12 participants, then I would have reevaluated and interviewed additional participants.

In order to identify participants, I contacted non-profit organizations that work directly with the Deaf population. I provided them with a digital flyer that the organizations could send to their members that linked to a brief questionnaire if they were interested in participating. This questionnaire verified that the interested individuals met all the required criteria listed above. If the participants met the criteria, then I contacted them directly by email to schedule an interview.

Instrumentation

The primary data collection instrument that was used to gather data was a structured interview. Interviews were conducted through the Zoom in-meeting chat. The questions were all developed by me. I transcribe the data and used NVivo to help organize the information. Then, I coded the data for different themes and ideas. Using thematic coding and bracketing, I was able to find the commonalities in experiences between participants. Last, I used a second coder to insure intercoder reliability. The second coder that I used was an individual who holds a Doctor of Medicine degree and is familiar with qualitative research methods.

Researcher Developed Instruments

The questions that were asked during the interview were based on literature relevant to social relationships with parents or guardians and evaluating coping methods in times of mental stress (please see Appendix A). Appendix A provides a list of all the questions that were asked during the structured interviews. By creating questions based on established literature, the overall validity of the questions used in the interview increases (Huberman et al., 2002).

To answer research question one, what are the lived experiences of Deaf trauma survivors who suffered early language deprivation, I asked the following questions.

- What are the main stressors experienced by Deaf individuals?
- What are common stressors for Deaf individuals who have grown up with hearing parents or guardians?
- How common is it for you to hear about Deaf individuals with similar experiences as Casey having supportive relationships with their family of origin (e.g. parents/guardians, siblings, etc…)?
- If comfortable, could you talk about your present relationship with your family of origin?
- Could you discuss your relationship with your family of origin as a child?

For research questions two, what role do early interpersonal relationships play in the development of trauma coping skills for Deaf adults, I asked the following:

- How do Deaf individuals with similar experiences as Casey cope with their stress?

- If you feel comfortable, could you talk about how you cope with stress?
- How did you cope with stress as a child?
- Who do you go to for support or advice in a stressful situation?
- Do you feel that your experiences with your family of origin have impacted the way that you deal with stressful events today?
- If so, how do those experiences impact the way that you deal with stressful events today?
- If not, could you explain why you feel that those experiences have not impacted the way that you deal with stressful events today?

Procedures for Recruitment, Participation, and Data Collection

I applied to the Walden Internal Review Board (IRB) for approval to move forward with my study. Once approval was granted, I contacted facilitators at non-profit and Deaf focused organizations to obtain permission to recruit from their respective member pools. Individuals who were interested in participating in my study completed a brief questionnaire (see Appendix B). If the individual met the requirements for the study, they were contacted to schedule an interview. Prior to the date of the participant's interview, he or she was sent a consent form via email. I also used an email address that was specifically created for the purpose of this study. If the participant agreed to the consent form, they were asked to respond back to the email with the words "I consent." I was the one that conducted the structured interviews over the Zoom in-meeting chat feature. At the start of the interview, I gave the participant a short profile describing a fictitious Deaf American (see Appendix C).

A potential problem that was discussed in other studies was that individuals in the Deaf community are often concerned about privacy of information (Anderson et al., 2017; Sirch et al., 2017). Additionally, Deaf individuals are sometimes worried that due to the close-knit nature of the Deaf community, someone may guess their identity based on the information that is provided in the interview. To help mitigate this concern I used a profile of a fictitious Deaf American that had a similar background to the research population that was being targeted. The individual described in the profile was gender neutral. This individual was referred to in some questions that were being asked during the interview. The purpose of this was to allow the participant to speak from their own experiences while still maintaining personal confidentiality.

After the profile was read, the structured interviews began. All interviews were recorded and transcribed. I interviewed each participant one time. Each interview was estimated to take one hour to complete. I had anticipated that it would take me about three months to complete enough interviews to reach saturation. To limit translational errors, I communicated through the in-meeting chat.

In the event that recruitment resulted in too few participants, I had planned to contact the administrators of various Deaf and hard-of-hearing Facebook groups. Through these administrators, I was going to ask for permission to recruit from their member pools. I planned to use the same digital flyers sent to the facilitators at the non-profit and Deaf focused organizations. Additionally, I implemented a snowball sampling method for recruiting additional participants.

Participants were able to exit the study at any time. At the start of the interview, I reminded all participants that they can choose to stop the interview at any time without penalty. Participants that completed the interview were provided with an opportunity to voice any questions or concerns that they may have had. Within one month of the interview, participants were sent a copy of the transcription from their respective interviews. The participants were able to review the transcription for accuracy. If the participants felt that something needed to be changed, they could reply back to the email with those changes. By allowing the participants to review their transcripts after the interview, they were participating in member checking.

Data Analysis Plan

Through my study, I used the collected data to understand how early interpersonal relationships in the setting of early language deprivation impacted the development of trauma coping skills for Deaf adults. I had two research questions that the data were used to answer. All data were transcribed and imported into the NVivo software for coding. Initially, I separated each interview by the question that was asked. By initially separating the data by interview question, I was able to connect data to specific research questions.

I also used thematic coding and bracketing as a means for coding my research data (Nowell et al., 2017). While coding the data, I was looking for commonalities and overarching themes within the text. To avoid personal biases impacting the way that I coded the data, I used bracketing. Bracketing help me to strip away various layers of symbolism until only the experience or piece of data was left in its most raw form (Tufford et al., 2010). If a discrepant case was found within the data, I highlighted the discrepancy in my coding. Data discrepancies can be important to answering research questions or discovering further avenues for coding.

Issues of Trustworthiness

To establish internal validity, I attempted to reach saturation of data. Saturation is reached when it is no longer necessary to collect or analyze new data (Saunders et al., 2017). This occurs when no new themes are found within the data. I also implemented member checks after the data were collected, transcribed, and analyzed. Member checks helped to ensure that the analysis of the information collected was accurate to the participants’ experiences.

External validity was established through transferability. Established transferability occurs when something can be generalized to other populations or cases (Leung, 2015). Through the outline of my data collection process and procedures, other researchers could use this study and apply the plan to other populations.

An audit trail was be used to help establish dependability. According to Given (2008), an audit trail is the documentation of all parts of the research conducted. Audit trails can be very useful in qualitative research as they help the researcher provide support regarding decisions that were made. Qualitative research goes through many iterations. Keeping a clear process document related to decision making in research provides dependability.

Reflexivity, a concept which requires a researcher to be both subjective and objective, was used to establish confirmability (Dodgson, 2019; Lichtman, 2011). Some researchers have argued that this is one of the most important strategies to implement in qualitative research. The reason for this is that the researcher must remain self-aware of their biases at every step of the data collection and analysis process. Intercoder reliability was used in tandem with reflexivity to ensure that biases were not missed in the coding and analysis process.

Ethical Procedures

Ethical procedures and treatment of participants is of the upmost importance in scholarly research. I started by applying for Walden IRB approval to collect data at various Deaf focused organizations and non-profits. Approval was granted from the Walden IRB, and then I reached out to facilitators to gain access to their member pools. If individuals wanted to participate in my study, they were able to reach out to me through the completion of a brief questionnaire (see Appendix B). At the start of the questionnaire, the participants were told that the purpose of the study was to learn more about how early relationships have impacted the lives of Deaf individuals in adulthood. All participants were provided with an informed consent. Participants were instructed to indicate that they have electronically received the informed consent form and are voluntarily participating in the study. All participants were informed that they could choose to stop the interview at any time without any repercussions. This message was repeated a second time at the start of the interview. Participants were notified that they would receive a transcription of the interview about a month after the interview. Once received, they were able to respond with any changes or further clarification to any of the data.

Participants received a small compensation in the form of a five-dollar gift card to Starbucks. At the start of the interview, the gift card was electronically sent to the participant. They were notified that their participation in the study was not necessary in order to receive the gift card. They could choose to stop the interview at any time and still keep the gift card. This was all outlined within the participant informed consent form as well for the participant to read.

The risk for psychological or physical harm was low. Because the interview discussed a participant’s coping skills for dealing with trauma, there was a potential for psychological stress. If participants experienced stress I provided them with the number to a 24-hour hotline for mental health. Additionally, I provided a link to the National Institute of Mental Health (NIMH) live chat as communicating over the telephone may not be accessible to this population. If a participant wanted to file a complaint, I provided all participants with the contact information for Walden’s IRB.

Due to the nature of the Deaf population, confidentiality is very important. Interview data were kept in a password-protected file on my personal computer. This computer is also password-protected. The only other individual that had access to the data was my second coder. However, all names were replaced with a numerical code that only I have access to. I also created an email address that was used only for this study. After the completion of the study, I removed all identifying information from the email account. I also removed all identifying information from the Zoom account at the conclusion of the study. The data that I have collected will be kept for a total of 10 years.

Conclusion

Within this chapter I outlined procedures for participant selection, data collection, analysis, and ethical considerations. I described the plans for ensuring validity and reliability of the data. Last, I designed research questions with the purpose of understanding how early interpersonal relationships impact Deaf American adults' ability to develop coping skills in adulthood. It is my hope that the information gathered in this study can eventually be applied to real life and create a positive social change for the Deaf American population.

Chapter 4: Results

Introduction

The purpose of this study was to understand the experiences of early language deprivation and how those experiences impacted Deaf, American adults' ability to cope with trauma. The first research question focused on the experiences of Deaf trauma survivors who suffered early language deprivation. The second research question focused on understanding the role that early interpersonal relationships play in the development of trauma coping skills for Deaf adults. This chapter is separated into three major sections: data collection, analysis, and results. In the data collections section, I will provide a description of the participants and any variations that were present. Next, the data analysis section includes a description of the different themes and codes that were established. Discrepancies and how they were factored into the overall analysis are included. Last, the results section addresses the research questions and provides support for each of the findings.

Setting

On August 11th, 2021, I was authorized by the Walden IRB to move forward with data collection (approval #08-11-21-0627378). The approval was set to expire on August 10th, 2022. At the time of approval, the COVID-19 pandemic was prevalent across the globe, requiring mass shutdowns and government mandated quarantines. To prevent unnecessary exposure, I had decided to interview participants through Zoom in-meeting chat. Moving forward I will be referring to Zoom in-meeting chat as 'chat.' Participants were encouraged to select locations that were private and allowed them to remain undistracted throughout the duration of the interview. Due to the government mandated quarantines and shutdowns that were occurring within the United States, participants may have been impacted by the effects of living through a global pandemic. As a result, these events may have influenced participants in their responses or their experience at the time of the study.

Demographics

Demographic information is noted in Table 1 below. Participants were required to be at least 18 years of age, d/Deaf or hard-of-hearing, live within the United States, and have grown up with at least one hearing caregiver. The characteristics relevant to the research were the participant's primary caregiver's hearing status, their secondary caregiver's hearing status (if applicable), and the relationship of the caregivers to the participant.

Table 1

Participant Demographics

Participant	Primary Caregiver's Relationship to Participant	Primary Caregiver's Hearing Status	Secondary Caregiver's Relationship to Participant (if Applicable)	Secondary Caregiver's Hearing Status (if applicable)
P1	Mother	Hearing	N/A	N/A
P2	Mother	Hearing	N/A	N/A
P3	Grandmother	Hearing	Mother	deaf
P4	Mother	Hearing	N/A	N/A
P5	Mother	Hearing	Grandmother	Hearing

Data Collection

In total, 10 people responded to my recruitment fliers. Seven of the participants were invited to participate in the interview. Three individuals did not meet the inclusion criteria. Two of the individuals that were invited did not want to complete the consent process. Five individuals met the inclusion criteria and were successfully interviewed for the study. In Chapter 3, I had noted that I planned to interview anywhere from five to 12 participants; however, I felt that I reached saturation of data at five. No additional participants were needed.

Location, Duration, and Frequency

While conducting the interviews, I was secluded in my private office at home with the door shut. Participants were encouraged to find a place that was quiet where they could be alone and were able to focus on the interview. All interviews were conducted remotely via chat. This allowed for further privacy and comfort for both me and the participants.

I had initially estimated that it would take me 3 months or 12 weeks to recruit participants and complete interviews. I ended up spending a total of 18 weeks recruiting and collecting data. Individuals responded to the recruitment fliers throughout the 18-week period rather than all at one time.

Participants were advised to allow about one hour for the interview. Each interview took an average of 59 minutes to complete. Interviews ranged in length from 40 minutes to 75 minutes. Because the interview was completed via chat, I attribute this time variation to the participants' individual reading and typing speeds. The interview protocol that was developed was used for all the interviews (see Appendix A.) The interviews were semistructed in nature, allowing for follow-up questions to be asked where appropriate.

Data Recording

Data were recorded via written text for all five participants. One participant also responded to some questions verbally in addition to chat. At the time of the interview, the participant stated that they were more comfortable with having the option to either speak or type out their responses to questions. This participant stated that depending on the length of their response, they were worried that they would be too slow to type out their entire response. As a result, they wanted to have the option to tell me their answer verbally if needed. The use of the Zoom platform made it possible to accommodate the participant's needs during the interview. I exclusively used the chat to ask all interview questions.

Variations and Unusual Circumstances

There were two variations to the data collection as outlined in chapter three. First, I had planned to collect all data exclusively through chat. However, one participant needed an accommodation as noted above. That person provided responses to interview questions via both chat and verbal response. The second variation was that I was not always able to get the participants' cleaned transcript returned to them for review within the 30-day timeline; however, the participants had immediate access to the raw chat transcripts. All participants were encouraged to let me know at any time if there were any responses that they wanted changed or removed. No participants expressed dissatisfaction or wanted their interviews to be changed.

Data Analysis

To analyze data, interpretive phenomenological analysis (IPA) was employed (Eatough & Smith, 2017). All interviews were completed over chat except for one, which was completed with both Zoom and Zoom in-meeting chat. The data were transcribed, and transcripts were reviewed by both the participant and me for accuracy. Next, I cleaned all the transcripts of any identifying information. After I went through the process of data analysis, I had my second coder follow the same data analysis process. Once complete superordinate themes and subthemes were compared for further confirmation of accuracy. I used both Microsoft Word and Microsoft Excel to assist with organizing my data during the data analysis process.

The first step that I took was reviewing all the transcripts and any initial notes that I took during the individual interviews. I made sure to pay special attention to patterns in the transcripts where the participants would transition to providing more meaningful descriptions of their experiences rather than a generalized response. I highlighted these sections for later review.

Next, I made several notes about the use of language and descriptions provided by the participants. According to Eatough and Smith (2017), the participants should be considered experts in their experiences rather than mere respondents. For this reason, I made note of the specific language that was used to describe and make sense of their experiences. This allowed me to compile a detailed and content-rich list of notes for each of the different interviews. The third step that I took was to review all my detailed notes and begin to analyze some of the commonalities between the different interviews. I looked at things like context and common language usage. As I analyzed the data in combination with my own interpretations, I found that common themes began to emerge (see Table 2.)

Table 2

Superordinate and Subthemes

Support	Stress	Coping
Community	Communication	Dual Identity
Family	Technology	Interpersonal Support
	Family	Intrapersonal Support

The first superordinate theme is support. This theme describes the external help or assistance received by the participant throughout their life. It does not encompass aspects of self-help behaviors that may be found to provide supportive benefits to the individual. Within this theme are three subthemes: Community and family. The second superordinate theme was stress. The purpose of this superordinate theme was to describe the main sources of significant stress experienced in the participant's lives. The term 'stress' was specifically used by participants 48 times over the course of the interviews. The superordinate theme of anxiety included two subthemes: Communication, technology, and family. Last, the third superordinate theme was coping. This theme describes the coping methods used by participants to deal with highly stressful situations. Subthemes of this superordinate theme included dual identity, interpersonal support, and intrapersonal support.

Credibility and Transferability

During the data collection phase, I attempted to maintain credibility through member checks as well as internal validity and transferability. Member checks helped to ensure that the information collected was accurate to each participants' experiences. Participants received a copy of their interview transcripts and were asked to follow up if there were any changes or additions that they would like to make. Depending on the participants' responses, requests for clarification of meaning were made.

According to Saunders et al. (2017), internal validity is established when the data has been fully saturated, and no new themes are found. During the data analysis process, I went through multiple rounds of thematic coding and bracketing until I reached my final superordinate and subthemes. Saturation of data was established after interviewing five participants.

In qualitative research transferability is another way to establish validity of the research. Leung (2015) stated that transferability occurs when something can be generalized or applied to other populations, locations, contexts or cases. I was able to reach saturation with a population that was located across the United States. Therefore, the data is generalizable to all d/Deaf American adults who were raised by hearing parents or guardians.

Dependability

To establish dependability, an audit trail was kept throughout the research process. Qualitative research is known to go through multiple iterations to find the primary meaning. The audit trail acts as a source of support or rationale as to why certain decisions were made along the way.

Confirmability

To maintain confirmability, I utilized both reflexivity and intercoder reliability. Reflexivity is a concept that requires the researcher to be both subjective and objective during data collection and analysis (Dodgson, 2019; Lichtman, 2011). This means that the researcher must remain self-aware of their biases at each step of the research. I kept notes of any biases that came up during collection, coding, and analysis.

Next, I had a second coder assist me with intercoder reliability. We both coded the data using thematic coding and bracketing and then compared our notes to assure that biases were not missed in the coding and analysis process. Using intercoder reliability in tandem with reflexivity helped me to establish confirmability within my study.

Results

The purpose of the study was two-fold. First, I wanted to get a better understanding of my participants' experiences with early language deprivation. Second, I wanted to understand how their early relationships with their parents and guardians impacted the way they dealt with trauma and stress later in life. My research questions were as follows:

RQ1: What are the lived experiences of Deaf trauma survivors who suffered early language deprivation?

RQ2: What role do early interpersonal relationships play in the development of trauma coping skills for Deaf adults?

To collect the data, I followed an interview protocol (appendix A) in which I asked the same set of questions during each interview. While analyzing the data, the emerging themes appeared to align with my research questions. The superordinate themes were support, stress, and coping. The support and stress themes reveal the experiences of the participants. Collectively, all themes further helped to answer research question related to the role early interpersonal relationships in developing coping skills. In this section, I will be organizing the results by superordinate theme followed by subsequent subthemes.

Superordinate Theme 1: Stress

During the interviews, the participants were asked varying questions to learn more about traumas experienced during their lifetime. Participants discussed these traumas with the terms ‘stress’ and ‘anxiety.’ The term stress was directly used 48 times by participants. This term also had an overall weighted percentage of 0.63% when analyzing all words used by participants.

Many of the participants had similar experiences when it came to stressful situations. These experiences were often centered around three main areas: communication access, family related issues, and problems related to technology or the lack thereof. These experiences were grouped into sub-themes with the overarching theme being stress.

Subtheme 1.1: Communication

Stress related to problems with communication was discussed in all participant interviews. Overall, it appeared a total of 11 different times within the data. The participants tended to discuss communication issues in terms of ‘missing out,’ or the social repercussions of misjudging a situation because they misunderstood what was being said. Participant 001 shared, “I miss so many things that my brain now considers background noise and my relationships have suffered due to anxiety of not being able to communicate.” Participant 003 reported

> It was very difficult to get to a place and make friends because I knew I couldn’t communicate with them and they didn’t know how to communicate with me. Trying to read lips caused me stress .... So did my teachers. I wanted not to be behind, and it was difficult to keep up.

Participant 004 summarized the general sentiment of what the other participants were saying in stating, “Social Anxiety from not hearing a conversation. Judging it incorrectly. Missing out 99% of what was being said.”

Subtheme 1.2: Technology

During the interviews, many of the participants described stressors related to technology or the lack thereof. Being able to communicate in the hearing world is important to daily living. Participants acknowledged current assistive technologies but noted that many did not work as they should or were not regularly available for use. Participant 004 shared, “Even with my hearing aid, I am deaf.” Participant 004 also mentioned

> We have no chatbot technology for us when we go into Panda Express. Can’t even order a meal. Only the hearing world has a chatbot white square thing. Sometimes even our hearing aid breaks so we just starve after we get off work.

Participant 005 discussed some of their concerns related to being able to get prescription refills. Without the assistance of their partner, who is hearing, to translate for them, it was not possible for them to participate in telehealth session during the COVID quarantines. They stated, “When I need to get my prescription filled I can’t do telemedicine. I have to have my partner there. So we have to schedule it in the evening, they may or may not be there.” They explain this further by sharing, “So I don’t do facetime really, because for some reason I have a hard time personally reading lips and hearing, because I need the sound right there for me for some reason.”

Subtheme 1.3: Family

All participants discussed family in their interviews; however, some spoke about family as a source of support while others discussed them as a source of stress. The focus of this subtheme is on the stressors caused by the participants’ families. Family related stressors appeared in the data nine times. Participant 001 shared some of their concerns related to family. “Sorry I feel terrible and have no one else to share this with. My mother is getting old now but it affects us too. I am very close to my mom. She is currently living with me and it is easy to have her around.”

Some participants had positive relationships with their family members, such as participant 001; however, situations surrounding those family members were the source of stress. Others, such as participants 002 and 005, felt that their parents were the direct source of stress. Participant 002 reports, “We can mostly tolerate each other, and I’m trying to help out around the house. She’s very critical of almost every single thing I do. And she can get pretty mean.” Participant 005 shared

> It was like they didn't have a deaf child as much as they could possibly. I was mainstreamed from Kindgergarten until I graduated. My dad was the first person to ever make fun of me by calling me names. He would call me Deafo. Until the one kid made fun of me in 5th grade, the only person that ever made fun of me was my dad.

Superordinate Theme 2: Support

In addition to being asked about experiences related to stress and trauma, participants were also asked questions related to sources of support. Participants indicated that they most frequently experienced support throughout their life in the form of family and community. These three themes became the subthemes of the support superordinate theme.

Subtheme 2.1: Family

Support in relation to family was mentioned eight times across all interviews. Many of the participants talked about significant support related to family assisting with communication. Participant 001 reported, "[My mother] took some classes, watched videos, read books, and interacted with the deaf community. She is here now with me." Participant 002 stated

> Grandma used a series of gestures she figured out on her own, and my mom uses a series of gestures she developed on her own when she can't think of the word for something. I know only a little ASL, unfortunately.

Participant 003 mentioned, “She helped me with my homework and socializing. She helped me communicate with other children. She helped me play with them,” when referencing the support that she received from her grandmother.

Participants 002 and 005 also discussed receiving support from their siblings. However, the support was not related to assistance with communication, but rather generalized support. Participant 002 reported, “Really good. I can talk to them, they can talk to me. We agree about a lot” when referencing their relationship with their siblings. Participant 005 said, “That was in my, almost in my 30’s. He started accepting that I was deaf. Then he started, it was really hard for him, but he started being more supportive of being deaf.”

Subtheme 2.2: Community

The term community was mentioned 11 times during the interviews with an overall weighted term percentage of 0.14% as compared to all other words used during the interviews. Finding support through the community was a topic that seemed to be important to many of the participants. Participants often described the support that they received through the community as validating and understanding. Participant 001 shared, “Sign language I find it really liberating. I’m lucky to have a core group of friends who know me well and understand my deafness.” Participant 003 stated, “They are people out there who just don’t go by how you hear and talk, but rather like you as a person you are.”

Superordinate Theme 3: Coping

The last superordinate theme that appeared from the data analysis was coping. This theme helps to answer the second research questions, which asks how early interpersonal relationships impact coping skills as adults. The subthemes that emerged from the data were interpersonal support, intrapersonal support, and dual identities.

Subtheme 3.1: Intrapersonal

Participants largely used a variety of coping mechanisms to deal with trauma and stress. Some of these coping mechanisms were intrapersonal; meaning that it was a coping mechanism that they derived independently of others. For many participants, their intrapersonal coping mechanisms were positive, such as taking a walk, a bath, or reading a book to help relieve the stress. Participant 001 discussed using “Daily meditation, relaxing and exercise” when they were feeling stressed. Participant 003 shared, “Exercise. went for a walk with my daughters. Feel the nature.” Last, participant 004 stated

> A lot of us use visual means to keep us motivated to ignore stress/stressors and each can be different based on how our brain was formed (like making us preferring a scene from a video game that makes us happy or physical activity) and its sound or dreams that are messages from the deep that affect us most.

For other participants they reported using high-risk coping mechanisms to cope. Participant 002 said, “I did some drugs about it, I guess, and fucked up a lot of relationships. Time and distance from the trauma seemed to help the most.”

Subtheme 3.2: Interpersonal

All but one participant described seeking social support as a means of coping. There were 13 references to interpersonal coping mechanisms within the data. Participant 004 stated

> Alot of times deafs end up with children and or jobs, but we remain a tight knit community even when it comes to having kids. Most deafs go to other deafs they know will keep quiet before they go to family as the community is always very small and tight knit.

Participant 001 stated, “I cope having moved in with my mother. I go out to do grocery shopping so she can do the taking and hearing.”

Subtheme 3.3: Dual Identity

The third subtheme that emerged from the data was that of participants describing aspects of having a dual identity. Because they were raised outside of the Deaf community, many participants felt that they had to act a certain way in the hearing world and another way around Deaf peers. This behavior is similar to that of code switching, which can often be seen in individuals of different minorities that interact with individuals of a majority group. Participant 003 shared, “Choosing not to fall behind when it comes to hearing. Choosing to blend into Society in general (with the General Public) and in many ways we should not have to do that.” Participant 004 stated

> Some of us are Deaf and partially deaf, then there are some of us, where we live in both worlds… Only way we deafs can alleviate stress is either by joining the

> hearing world or finding others with our exact condition in the deaf world while pretending to not be deaf.

Participant 005 stated

> I would miss out on a lot or I would make people think I was dumb or air headed. Or just didn't pay attention, I would let people think that about me. Especially after I was hiding that I was deaf.

Addressing the Research Questions

The data collected from the five interviews provided a wealth of rich data that shed light on the experiences of the participants and many d/Deaf individuals within the United States. The superordinate themes that emerged during analysis and their subsequent subthemes provided information to answer the research questions: What are the lived experiences of Deaf trauma survivors who suffered early language deprivation? And what role do early interpersonal relationships play in the development of trauma coping skills for Deaf adults?

What I found was that my target population deeply relies on their social connections or interpersonal relationships as a means coping with traumatic situations, stress, and anxiety. One participant noted that d/Deaf individuals often go to other Deaf peers for help or support before they will go to their family. Many participants noted that within their chosen communities, those individuals truly saw them for who they are as opposed to their preconceived notions about d/Deaf individuals. When participants were met with hostile relationships, such as those of an unsupportive parent, participants' views of what was causing them stress and how they dealt with it would change.

In the next chapter I will be discussing the results of my analysis in greater detail as it relates to the theoretical foundation and prior findings as outlined in the literature review.

Chapter 5: Discussion

The purpose of this study was to understand the experiences of d/Deaf, American adults surrounding the phenomenon of early language deprivation and how those experiences impacted their ability to cope with trauma during adulthood. Using an interpersonal lens, I focused on how d/Deaf adults' early relationships, such as those with their parents, siblings or guardians, and their experience of early language deprivation have shaped their development of trauma support networks in adulthood. Gaining more insight into these lived experiences is valuable in that it helps to provide support for greater access to appropriate, language accessible resources for d/Deaf and hard-of-hearing individuals.

The data analysis in Chapter 4 revealed the role of early interpersonal relationships as it relates to how d/Deaf individuals cope with stress and traumas during adulthood. Discussed in greater detail in Chapter 4, I found that my target population is extremely reliant on their interpersonal relationships when it comes to coping with traumatic situations, stress, and anxiety. It was stated that they felt most supported and seen by their chosen communities versus individuals who had preconceived notions about d/Deaf individuals. When participants were met with hostile relationships, such as those of an unsupportive parent or guardian, participants' views of what was causing them stress and how they dealt with it would change. These findings were consistent with the literature that was reviewed in chapter two.

In this chapter, I will be presenting an interpretation of my findings from this study through the lens of the interpersonal theory of personality (Sullivan, 1953), as well as any limitations that could impact the outcome of the results. I will also be discussing recommendations for further study as a result of the findings and providing the implications for positive social change.

Interpretation of the Findings

To provide a more complete picture of my findings in Chapter 4, I will be discussing the results of my study as they compare to the research in Chapter 2. Additionally, I will be discussing my findings through the lens of Sullivan's (1953) interpersonal theory of personality. According to Horowitz et al. (1991), interpersonal relationships can be categorized into two major dimensions: power and affiliation. Power is described on a scale from submissive to dominant, whereas affiliation describes behaviors on a scale from hostile to friendly.

Limitations

In Chapter 1, several limitations were noted. The first limitation noted pertained to conducting the interviews in written English versus American Sign Language (ASL). Because ASL is the accepted primary language within the Deaf community I had anticipated that there could be some problems with validity due to certain concepts not translating directly between ASL and written English. To mitigate this limitation, I used member checks to confirm that the data gathered from the interviews was correct. What I did not anticipate with my research population was that each participant, while fluent in written English, all signed at vastly different levels. Additionally, some participants knew very little ASL and instead used home sign or other methods of non-verbal communication. As a result, member checks became very important to insure proper validity (Saunders et al., 2017). Having an ASL interpreter present to translate the interviews would not necessarily work for all participants.

The second limitation that was noted was related to conducting interviews in a virtual setting. By conducting all interviews in a virtual setting, I was limiting those who could participate to individuals who had internet access. Although, when the interviews were conducted there were still many restrictions due to the COVID pandemic. In this situation, the safety of everyone involved outweighed the possibility of limiting who could participate in the study.

Recommendations

There are several recommendations that I would make for further study. First, I recommend exploring the impact of supportive or ‘friendly’ parent/guardian relationships on trauma coping skill development versus non-supportive or ‘hostile’ parent/guardian relationships in early childhood for deaf and hard-of-hearing individuals. This will provide clarity as to different ways to better support hearing families of deaf children so that the deaf or hard-of-hearing children have the best chance at developing healthy coping mechanisms in adulthood.

My second recommendation for further study would be to conduct the study with a greater number of participants across the United States. By conducting the interviews in a virtual setting, participants from across the United States are able to participate. The study would not be limited to regionally specific experiences but could provide a richer understanding of the lived experiences of d/Deaf American population as a whole.

Implications

At the beginning of my research journey, I was curious about the role that a deaf child's relationship with their hearing parents plays in their ability to cope with stressors later in life. I also wanted to know more about their experiences growing up deaf or hard-of-hearing while raised by a hearing parent or guardian. Access to a complete language during the critical developmental period greatly impacts neurological development and school success (Henner et al., 2016). On a global scale, this research could help cause positive social change through helping global governments to understand the struggles of deaf individuals growing up deaf in a hearing world.

I believe that this study is most impactful for creating a positive social change on the community level. On a community scale, this research could go out to community health organizations, schools, and Deaf activist groups in order to help support the need for greater accessibility to ASL based resources for deaf or hard-of-hearing families. On an individual level, this research could help to improve the lives of deaf individuals through revealing the injustices of audism.

Conclusion

Early interpersonal relationships, such as those between a mother and child, are pivotal to a child's development. These early relationships can be positive in that they can help to push the child forward in terms of language acquisition, acceptance, and self-reliance (Park & Yoon, 2018). Among those who are born d/Deaf, 90 to 95 percent are born to parents who are hearing and have little or no experience with Deaf culture, the Deaf community or ASL (Anderson et al., 2016). Children who are not fully immersed in language from birth are at a higher risk of developmental delays (Bailes et al. 2009; Hall, 2017). Additionally, they may experience difficulties in school and at home. The quality of those early interpersonal relationships between deaf children and their parents or guardians has the power to impact the d/Deaf individuals during adulthood. By providing greater accessibility to ASL based resources and information, we can positively impact families of deaf children.

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Appendix A: Interview Protocol

Welcome the participant and thank them for their time.

Short Introduction – Provide a brief description of the research study.

Broad Stressors for Deaf Individuals

What are the main stressors experienced by Deaf individuals?

What are common stressors for Deaf individuals who have grown up with hearing parents or guardians?

Coping Methods

How do Deaf individuals with similar experiences as Casey cope with their stress?

If comfortable, could you talk about how you cope with stress?

How you coped with stress as a child?

Interpersonal Relationships

Who do you go to for support or advice in a stressful situation?

How common is it for you to hear about Deaf individuals with similar experiences as Casey having supportive relationships with their family of origin (e.g. parents/guardians, siblings, etc…)?

If comfortable, could you talk about your present relationship with your family of origin?

Relationship with family of origins as a child?

Do you feel that your experiences with your family of origin has impacted how you deal with stressful events today?

If so, how do these experiences impact the way that you deal with stressful events today?

If not, could you discuss why you feel that those experiences have not impacted the way that you deal with stressful events today?

Close of Interview

Would you like to add anything?

Is there anything that you were surprised that I did not ask you about during the interview?

Appendix B: Participant Selection Questionnaire

Are you at least 18 years old?

Do you consider yourself to be fluent in written English?

Do you have access to a computer or device that has an internet connection?

What was your parent(s) or guardian(s) hearing status: D/deaf, hard-of-hearing, or hearing?

Did you grow up in the United States of America?

Appendix C: Interview Profile

Casey (they/them) is a 35-year-old Deaf individual who was born in the United States. Their family of origin includes a mother, father, and one sibling. Casey is the only person in their family of origin that is Deaf. Casey’s parents attempted to communicate with Casey as a young child and learned a few signs. However, Casey’s family primarily relied on gestures and expressions to communicate with Casey. Casey eventually attended a mainstream school where they learned to use a combination of American sign language and lip reading. After graduation Casey moved to Washington D.C. to attend Gallaudet University. While there Casey became involved in the Deaf community. Casey went on to graduate with a bachelor’s degree in education. They now teach at the Maryland State school for the deaf.