


2018

A Comparison of Social Disconnectedness and Perceived Isolation in Deaf/Hard of Hearing Women and Hearing Women

Mellissa Perry
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Walden University

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Mellissa Perry

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Walden University
2018

Abstract

A Comparison of Social Disconnectedness and Perceived Isolation in Deaf/Hard of
Hearing Women and Hearing Women

by

Mellissa Lynne Perry

MA, Walden University, 2010

BA, Kaplan University, 2005

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
General Educational Psychology

Walden University

May 2018

Abstract

Previous research has concluded that hearing loss is related to psychological risk factors in a person that could potentially increase feelings of disconnect or isolation. However, the gap in literature and lack of knowledge regarding social disconnectedness and perceived isolation specifically for deaf/hard of hearing women makes it difficult for clinicians to develop appropriate programs to assist this population. The purpose of this study was to contribute information regarding the effects of hearing loss on social disconnectedness and perceived isolation to help clinicians create proper treatment plans to better assist the deaf/hard of hearing with negative feelings (e.g., loneliness, depression) resulting from those conditions. The dialogue and psychosocial theories provided the best foundation for this study as to how hearing loss can affect isolation and disconnectedness. The design of this quantitative study included a survey created from the social disconnectedness and perceived isolation scales for 97 participants who were deaf/hard of hearing ($n = 45$) or hearing ($n = 52$) to examine differences in isolation and disconnectedness. An independent-samples t test was utilized, and statistically significant findings showed that hard of hearing women who were 18 to 49 years old experienced more feelings of social disconnectedness than hearing women in the same age group, and that hearing women 18 and older and 50 and older experienced more feelings of perceived isolation more than their deaf/hard of hearing counterparts. The implication for social change pertains to the importance of understanding the effects of hearing loss on an individual's psychological processes. This knowledge can be helpful for clinicians when determining proper treatment strategies.

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Dedication

This dissertation is dedicated to my amazing husband Ian, my children Lance, Orion, Tristian, Joshua, Mia, Allyssa, Jaxsion, and Jaysse, and my brother Ryan.

Through all of the late nights and unexpected struggles you brought me laughter and hope. Continually supporting and cheering me on, and giving me the strength and encouragement I needed to persevere through a challenging and rewarding journey. I hope that the completion of this dissertation shows you that with motivation and determination anything can be accomplished. Always aim high, follow your dreams, and believe in yourselves because anything is possible. I love you all so much!

Acknowledgment

To my committee chair Dr. Michael Plasay, I am eternally grateful for your unwavering patience, guidance, and support throughout this long and tiring process your encouragement kept me going when I didn't think I could go any further. I would like to thank my second committee member Dr. Cathy Thompson, your insights and guidance truly helped in the completion of this dissertation and I am truly appreciative of your support. To my university research reviewer Dr. Jim Carroll, thank you for your valuable feedback and encouragement your support has been extremely helpful. I would especially like to thank my husband Ian for his patience and understanding, for picking me up when I was down, and cheering me on through this long and tiring process; your love, support, and encouragement has been so inspiring. To all of my children Lance, Orion, Tristian, Joshua, Mia, Allyssa, Jaxsion, and Jaysse who have each helped in there own way and for being a continuous encouragement for me to never give up, you are my inspiration. To my lifelong cheerleader, my brother Ryan, I am eternally grateful that you always believed in me, encouraged me, and made me smile when I couldn't find a reason, I love you so much. To my mom, your strength and love continually pushed me to finish this dissertation, and for always believing that I was capable of anything, with all my heart thank you. To my father, thank you for pushing me to be a stronger and more determined person in everything I do, I love you. I am also grateful to my other family members and friends who supported me during my work on this dissertation. Most importantly, I thank God with everything I am for blessing me with the strength and determination to make my dream a reality.

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Chapter 1: Introduction to the Study

Introduction

Understanding Hearing Loss

Hearing loss is considered to be an invisible disability; a person with normal hearing who tries to communicate with a hard of hearing or deaf person may be at a loss in regard to the lack of understanding (Desselle & Proctor, 2000). A person who has never experienced a hearing loss may not realize that hearing aids or cochlear implants do not correct hearing in the same manner as eyeglasses do for vision. The reasons why individuals with hearing loss do not wear their hearing aids range from comfort and fit, not being able to effectively hear in loud environments, feeling uncomfortable, they only work in specific settings, and the stigma of wearing hearing aids, including cosmetic concerns (McCormack & Fortnum, 2013). When wearing a hearing aid, sounds are amplified and may be unclear and confusing to the wearer (Desselle & Proctor, 2000). Furthermore, background noises are amplified and sounds can become jumbled making speech unintelligible for the wearer. Background noises can become so loud that it is excruciating, and the hard of hearing/deaf individual will not wear the hearing aids.

Due to the pain caused by loud noises from wearing hearing aids and the frustration of not being able to comprehend spoken words, hard of hearing individuals may decide they do not want to wear the hearing aids. When an individual does wear the hearing aids, others may believe that the hard of hearing/deaf person has perfect hearing, but this is not the case according to the study conducted by Desselle and Proctor (2000). The wearer may become increasingly frustrated due to lack of understanding, and the

conversation often has to be continually repeated. This repetition may cause impatience on the part of the speaker. Often the hard of hearing/deaf individual may nod in agreement, acting as though they understood what was being conveyed when in fact they did not.

Research results conducted by Spyridakou (2012), found that an individual with a hearing loss may complain they are unable to hear in noisy or quiet environments; they may also express difficulty watching television or utilizing a telephone. Furthermore, individuals with hearing loss report problems hearing sounds in their environment such as a telephone or a doorbell ringing. They may at times deny that they have problems hearing, although their friends and family have noticed. Hearing loss can discourage individuals from engaging in a variety of listening situations; this can lead to social isolation. The feelings of isolation can cause depression, decrease in confidence, and the unwillingness to interact in social settings (Spyridakou, 2012).

Communication

Overall, communication and therefore relationships often begin to suffer for the hard of hearing individual. Breakdowns in information may occur and those having a conversation in front of a hard of hearing/deaf person may continue to converse as if the person is not present (Desselle & Proctor, 2000). When talking with a person who is hard of hearing/deaf, the speaker should always treat them with dignity. According to a study conducted by Desselle and Proctor (2000), it is recommended that when speaking with these individuals some of these suggestions should be followed:

- Always face the person, speak clearly and slowly, enunciate each word, and maintain eye contact.
- Speaking louder may help, but refrain from yelling or shouting.
- Do not speak into the person's ear. This would inhibit the use of visual cues.
- Check with the person that they understood what was said following the conversation.
- Write a thought or word when the person is having a difficult time understanding.
- Be patient and treat the individual with respect (Desselle & Proctor, 2000).
- If possible Spyridakou (2012) further suggested trying to talk with the individual in a place with limited background noise.
- Always get the attention of the individual prior to speaking.
- Finally, ensure that the room is well lit, and if it is possible, in order to improve acoustics the room should be furnished with curtains and carpets (Spyridakou, 2012).

Causes and Percentage

Hearing loss is considered to be the most common sensory defect (Mahboubi, Dwabe, Fradkin, Kimonis, & Djalilian, 2012). It has been reported that 50% percent of congenital hearing loss is genetic in nature, and this can be related to autosomal recessive inheritance, which is highly associated to blood relation (Selvarajan, Arunachalam, Bellur, Mandke, & Nagarajan, 2013). Therefore, there is an increased chance that the defective gene is shared in offspring, thereby increasing the chances of hearing loss

running in the family. Furthermore, Selvarajan et al. (2013) reported there is a 12.5% to 25% chance of sharing the gene in second and third degree blood relations.

It has been reported that approximately 35 million individuals in the United States are considered hard of hearing or deaf (Hamill & Stein, 2011). Deaf individuals in the United States continue to deal with discrimination in areas such as education, housing, and employment; in addition, there are issues with unjust treatment and inadequate schooling. Further research conducted by Hamill and Stein (2011) reported that deaf individuals often face stereotyped and negative attitudes in their daily lives from hearing individuals. There are constructed meanings of deafness that place emphasis on limitation, loss, and disability of a person with hearing loss. Hamill and Stein (2011) further reported that often a surgical solution is suggested such as cochlear implants for the treatment of deafness; however, such surgery carries a significant medical risk.

Cultural Views

Approximately half a million people in the United States view deafness from a cultural perspective, although it is typically seen as a disability or medical disorder (Hamill & Stein, 2011). Some individuals who are Deaf do not look at themselves as being disabled, but rather identify as a part of an ethno linguistic minority, they are proud to call themselves Deaf. When identifying as deaf with a lower case “d,” it refers to lack of hearing. The use of Deaf with an uppercase “D” refers to a cultural identity with this population. Hamill and Stein (2011) report that the literature regarding Deaf culture is anecdotal in nature or predominantly autobiographical. The examination of the Deaf culture turns up few systematic studies.

According to research conducted by McIlroy and Storbeck (2011), cultural values can become compromised when a deaf individual is seen in both the Deaf and hearing communities as an outsider; they are neither hearing nor deaf enough to be fully accepted. Due to such an individual's bicultural identity, they may be able to coexist between both the Deaf and hearing worlds; therefore, it is believed they are able to navigate between the two cultures. This identity can take a deaf individual on one of the two paths. The first would be the individual strives to be like a hearing individual so as to blend into the oral language world. This would entail identifying their hearing loss as something they could overcome, which is set forth by the medical model of hearing loss. The other option would be to identify primarily as a member of a sociolinguistic minority who recognizes Deaf rights as portrayed by the social model (McIlroy & Storbeck, 2011).

If deaf individuals believe that their lack of hearing deems them disabled, this can be primarily attributed to experiences of shame or contempt expressed by hearing individuals, which can compromise their dignity (McIlroy & Storbeck, 2011). This is an example of the dialogue model; it is of considerable value to minorities such as Deaf/deaf individuals with the belief that toleration of differences fosters reclamation of dignity. This model does not explain the identity of deaf individuals in its entirety but rather theorizes how deaf individuals experience the world. It helps to understand the struggles of minorities such as deaf people who otherwise fall through gaps in the social and medical models. McIlroy and Storbeck (2011) reported that overall, these two models help in understanding how deaf individuals make sense of displacement and disconnectedness in their lives.

An individual is believed to remain within a group if it augments the positive aspects of their social identity such as their self-esteem (Bat-Chava, 2000). If being in the group does not elicit a positive contribution due to stigmatization, the individual will leave the group psychologically or physically. Some individuals may attempt to enhance their self-esteem by identifying within the group and working towards social change. Bat-Chava (2000) further reported that deaf individuals may assume a cultural hearing identity by assimilating as much as they can into the hearing world through the use of residual hearing either through cochlear implants, amplification (hearing aids), or speech reading.

Psychological Impacts

Sheppard and Badger (2010), reported that older hard of hearing people reported feelings of isolation as children due to lack of common language within the family. These feelings were further exacerbated when the parents expected the child to lip-read and adapt to the hearing world. The child grew up feeling defective and as adults were laughed or stared at; this caused feelings of hopelessness. Communication barriers led to low self-esteem, isolation, and abuse. Furthermore, these childhood feelings led to the individual feeling like a burden on or ostracized from family (Sheppard & Badger, 2010).

Most often hard of hearing/deaf individuals are chastised as children for not trying harder to lip-read (Sheppard & Badger, 2010). Often they feel alienated from their hearing counterparts. In early childhood some individuals experienced emotional chaos due to the adults in their lives being unable to nurture and communicate with a nonhearing child. Furthermore, Sheppard and Badger (2010) suggested some hard of

hearing/deaf individuals experienced cognitive, physical, and emotional manifestations such as sadness, low self-esteem, feeling depleted, anger, or loss of interest in all areas of their lives.

Hard of hearing/deaf and hearing people share common experiences in their childhood according to research done by Sheppard and Badger (2010). These include feelings of loneliness, isolation, feeling different, and abandonment. However, for the hard of hearing/deaf adult, experiences and feelings are intensified by isolation from their peers and family members; as well as barriers in communication. Therefore, along with their experiences of early childhood traumas there are additional overall psychological risk factors for hard of hearing/deaf individuals. These would include an increased risk for feelings of disconnectedness and isolation (Sheppard & Badger, 2010).

Murphy and Newlon (1987) made three points about loneliness. First, an individual's experience of loneliness is subjective. Second, the deficit of an individual's special relationships results in loneliness. Third, loneliness is a distressing and highly unpleasant experience in a person's life.

An individual's subjective satisfaction with their peers is more strongly related to loneliness than the objective factors (Murphy & Newlon, 1987). Therefore, hard of hearing individuals are believed to face additional complications when it pertains to social adjustments. Hearing loss can have a profound social impact on individuals and isolation becomes a major issue for them. The hard of hearing/deaf individual tends to have a difficult time forming relationships with others due to their communication barriers and isolation. Murphy and Newlon (1987) further stated that those individuals

who utilize speech as their primary form of communication often have a difficult time blending into the hearing world.

Social isolation is believed to be a major issue related to hearing loss (Murphy & Newlon, 1987). Significant hearing loss and an individual's lifestyle experience may be reflective of more and more intense experiences with loneliness. It is possible that such feelings of loneliness are not solely related to hearing loss but are also dependent on other factors. However, research suggested that hard of hearing/deaf individuals experience loneliness at higher rates than that of their hearing counterparts (Murphy & Newlon, 1987).

According to research conducted by Murray, Arnold, and Thornton (2000), some deaf individuals have stated that they felt remote from their environment, although they did report heightened awareness with their other senses. Subjects described feeling disconnected from the activities around them and becoming more of an observer than a participant in various settings. Furthermore, some individuals were said to feel disconnected and isolated from their surroundings in general because having a hearing loss negatively impacts a person's social involvement. These feelings were indicative of the importance of social interaction and peer or family presence in order to feel less disconnected or isolated (Murray et al., 2000).

Statement of the Problem

The research problem addressed in this study was to determine if there is a significant difference in feelings of social disconnectedness and perceived isolation amongst hard of hearing/deaf women and hearing women who are 18 years of age and

older according to the scores on the social disconnectedness scales and perceived isolation scales. In this paper *hard of hearing* and *deaf* will be utilized as audiological terms referring to the varying range of hard of hearing and deaf people who have some form of hearing loss (Jambor & Elliot, 2005).

Purpose of the Study

The purpose of this study was to contribute information regarding the nature of perceived isolation and social disconnectedness in hard of hearing/deaf women when compared to hearing women in order to determine if further research is warranted and what can be done to correct any issues related to isolation and disconnectedness. Furthermore, clinicians with an understanding of perceived isolation and social disconnectedness in hard of hearing/deaf women would be better able to evaluate clients in terms of the effect that hearing loss has on their specific experiences with isolation and disconnectedness in social settings and their everyday lives. This could in turn inform treatment decisions. More specifically, the purpose of this study was to compare the social disconnectedness scale and perceived isolation scale scores of the two population groups (hard of hearing/deaf women and hearing women) in order to determine which group showed more signs of social disconnectedness or perceived isolation. This study's objectives were:

1. to determine if there are differences in social disconnectedness and perceived isolation among hard of hearing/deaf women and hearing women based on their scores on the social disconnectedness and perceived isolation scales, and

2. to contribute information and further the knowledge that is currently available regarding isolation and disconnectedness in hard of hearing/deaf women.

Design of the Study

This quantitative study utilized hard of hearing and hearing women 18 years of age and older to determine if there was a difference between disconnectedness and isolation. The social disconnectedness scale and perceived isolation scale were created and utilized in a previous study with the elderly population and the effects on their health (Cornwell & Waite, 2009). The authors believed that researching younger age groups would further an understanding of the effects of isolation and disconnectedness (Cornwell & Waite, 2009). It should be noted that there was no current evidence found indicating that the social disconnectedness and perceived isolation scales created by Cornwell and Waite (2009) were utilized in any previous study, specifically none focusing on the hard of hearing/deaf and hearing women population.

This study was designed to expand on the lack of information regarding isolation and disconnectedness in women who are hard of hearing/deaf when compared to their hearing counterparts. Therefore, the results of this study will further Cornwell and Waite's (2009) findings with a younger population, specifically for hard of hearing/deaf women. Hard of hearing/deaf participants who do not identify as part of the Deaf culture were identified through social media sites specifically geared towards this population. The hearing women were also identified through social media sites. In order to obtain accurate results as well as ensure proper communication, the following criteria were required: (a) they must be able to read English equivalent to or above the fourth grade

level, (b) they must be able to communicate primarily in the English language, and (c) they do not identify as part of the Deaf community. Furthermore, the participants were recruited on an individual basis in order to increase the likelihood of participation.

Research Questions and Hypotheses

In this study I proposed to answer the following questions.

RQ1: Are there differences in social disconnectedness among hard of hearing/deaf women and hearing women based on their scores on the social disconnectedness scale?

H_01 : Social disconnectedness is not different between deaf/hard of hearing women and those with normal hearing.

H_a1 : Social disconnectedness is different between deaf/hard of hearing women and those with normal hearing.

RQ2: Are there differences in perceived isolation among hard of hearing/deaf women and hearing women based on their scores on the perceived isolation scale?

H_02 : Perceived isolation scores will not be different between deaf/hard of hearing women and those with normal hearing.

H_a2 : Perceived isolation scores are different between deaf/hard of hearing women and those with normal hearing.

If a connection could be determined between the populations and the increased chance of deaf/hard of hearing women experiencing disconnectedness and isolation, treatment could be specifically tailored to that population and feelings of disconnectedness and isolation may be reduced.

Theoretical Framework

There is a lack of current research on whether deaf/hard of hearing women experience social disconnectedness and perceived isolation more than hearing women. The dialogue model looks at how hard of hearing/deaf people experience the world around them, although it does not explain their identity. According to the research findings of Honeycutt (2011), the dialogue theory assumes that three conditions must be met in order for dialogue to take place: (a) all assumptions must be suspended; (b) all participants must learn to listen, suspending judgment without assumption; and (c) participants must listen actively in order to interpret what is being said. For someone who is hard of hearing/deaf this can be extremely difficult.

Hard of hearing/deaf from a psychosocial perspective refers to the acceptance or rejection within a group dynamic. Jones (2002) stated this could be attributed to prejudice, language, and stigma. When a person feels stigmatized by others this may cause them to look for a group of similar individuals who they feel accepted by. The hard of hearing/deaf person may feel that others are prejudice towards them when they do not fall within the norm of the hearing or Deaf cultures. It is important to understand that language and communication is essential in any group dynamic. However for the hard of hearing/deaf person this can be a struggle and would make it extremely difficult to feel accepted in a group setting. The psychosocial theory suggests that for the hard of hearing/deaf person to be able to maintain a positive self-esteem they have to start by redefining the negative stigma surrounding their hearing loss (Jones, 2002).

Significance of the Study and Implications for Social Change

Hearing loss has significant and sometimes adverse ramifications for individuals, families, and society. It is imperative that clinicians and others recognize and understand the psychological and physical aspects of hearing loss such as loneliness and isolation, disconnectedness, anger, withdrawal, fatigue, and depression (Kaland & Salvatore, 2002). A greater understanding may allow clinicians, family members, and society as a whole to recognize and assist with these negative feelings and develop coping strategies for the hard of hearing/deaf individual.

Definitions of Terms

The definitions are provided below for ease of reference and guidance for the reader.

Hard of hearing: Frasu (2013), states this term is generally utilized for individuals with mild, moderate, or severe hearing loss. These individuals often utilize their speech as a primary mode of communication; they may be involved in the Deaf community. Often these individuals transition back and forth from the hearing and Deaf cultures (Frasu, 2013).

Deaf: Deaf with an uppercase “D” references those individuals who are members of the Deaf community and culture. According to Frasu (2013), these individuals use American Sign Language, and may attend residential schools for the deaf; there is a cultural bond based on shared experiences of oppression and use of a common language.

deaf: Deaf with a lowercase “d” references a group of individuals who do not identify as being a part of the Deaf culture (Frasu, 2013). These individuals usually use

residual hearing and speech to communicate instead of sign language. Frasu (2013), reported that often times this group of people have severe to profound hearing loss and associate mainly with hearing individuals.

Social disconnectedness: Social disconnectedness refers to an individual's low levels of participation in a group or social activities and lack of social relationships (Cornwell & Waite, 2009).

Perceived isolation: Perceived isolation is defined by a perceived lack of social support and loneliness by an individual (Cornwell & Waite, 2009).

Cochlear implant: Cochlear implant is a surgical procedure in which a device is implanted by an otolaryngologist into a person's cochlea or inner ear (Hilgenbrinck, Pyfer, & Castle, 2004). This device assists with hearing capabilities either fully or partially for individuals with a damaged ear.

Audiogram: An audiogram is a record of graphs and tables showing the results of an individual's hearing test. Further defined as a standard graph that measures and records the lowest and highest frequencies or pure-tone hearing thresholds in which a person is able to hear (Vogel, McCarthy, Bratt, & Brewer, 2007).

American Sign Language: American Sign Language or ASL is a form of language that is visual in nature, developed from French Sign Language and utilized primarily as a first language by individuals who are Deaf (Hardin, Blanchard, Kemmerly, Appenzeller, & Parker, 2014). The movement, shape, and placement of the hands to include body movements and facial expressions all play an important part in conveying information to

another individual. Hardin et al. (2014) reported that American Sign Language can vary widely due to regional, racial, ethnic, and/or cultural factors.

Congenital hearing loss: Congenital hearing loss is the term used to define a person born with a hearing loss, which can be either hereditary or due to issues in utero or at the time of birth (Sebastian, Varghese, & Gowri, 2015).

Hearing aid: Hearing aids are an electronic device worn in the ear that amplify sound for those who have hearing loss (Mosby's Medical Dictionary, 2013). The device consists of a battery power supply, a microphone, an amplifier, and a receiver; the devices receive sound waves, converting them to electrical impulses and finally back into sound vibrations.

Late deafened: Late deafened refers to an individual who has lost their hearing after originally acquiring a spoken language who identifies as a member of the hearing community; this individual would have already developed a lifestyle and personality that makes it difficult for them to assimilate the loss of their hearing (Sebastian et al., 2015).

Speechreading: A term coined by professionals who work with hard of hearing and deaf individuals in which an individual utilizes all clues in order to understand what the speaker is saying (Lee, 1997). It is also referred to as lip-reading and involves a comprehension derived from visual differentiation of sounds in sentences or words (Lee, 1997).

Acculturation: A term utilized to define a multidimensional and dynamic process of socialization and how individuals adapt or become accustomed to patterns or traits

necessary for integration into another culture (Schwartz, Unger, Zamboanga, & Szapocznik, 2010).

Limitations of the Study

I expected that limitations would be present based on the parameters of the population. This research did not include male subjects or the Deaf population who identify primarily within the Deaf community. However, the findings should allow for generalized inference within the studied population. Another limitation was the reliance on self-reported measures. I considered this limitation problematic because the results tend to be more subjective in nature because the responses rely solely on the participant's feelings, experiences, or other personal mitigating factors. Furthermore, the responses given could be inaccurate based on the participant's awareness of being part of a research study and attempting to look better than their counterparts. It would be beneficial if the longitude of the study and the number of participants were increased in future studies as it would likely offer a more in-depth understanding.

A second limitation was disparities in the personal histories of the subjects, which could alter the overall results. Some individuals might be better able to handle socially isolating situations or modify their beliefs so that they do not develop subjective feelings of isolation (Cornwell & Waite, 2009). This is an important issue because hearing loss can involve profound challenges with regards to social connectedness, such as difficulties communicating with others in large social settings. Clinicians, family members, and society in general need to better understand how hard of hearing/deaf individuals adapt to changes in social situations, as well as how environmental and psychological factors

affect their day to day experiences. These results could be further applied to treat all patients who are affected by feelings of isolation or disconnectedness regardless of hearing status, gender, age, or other relevant characteristics.

Summary

This study examined if there is a significant difference in social disconnectedness and perceived isolation between hard of hearing/deaf and hearing women ages 18 years and older. The information gathered could assist clinicians in determining ways in which to recognize the signs of isolation and disconnectedness and assist individuals in adopting effective coping skills in order to improve on the quality of life for hard of hearing/deaf people. The implications for social change could involve providing valuable personal awareness for the hard of hearing/deaf community as well as new useful knowledge for clinicians and others who come in contact with these individuals. Understanding that isolation and disconnectedness can have a negative impact on the self-esteem of this minority group and finding ways in which to help them protect themselves could alleviate feelings of failure and rejection and assist in coping with daily setbacks (Jambor & Elliot, 2005).

In Chapter 2, the theoretical framework of social disconnectedness and perceived isolation will be explored. Furthermore, in Chapter 2 I will explore in detail the definitions of hard of hearing, deaf, and the different types of hearing losses. This chapter will further discuss in detail the history of the social disconnectedness and perceived isolation scales and their utilization in assessment. Chapter 3 will provide a detailed methodology of the research, which will include detailed descriptions of the

research design, population, and the statistical analysis. In Chapter 4 I discuss the results of the current research, which include a review of all the findings and further explanation of the hypotheses. Finally, Chapter 5 provides an overall discussion and interpretation of the findings and further discussion on the implication for social change, as well as recommendations for future actions or research.

Chapter 2: Literature Review

Introduction

This literature review covers different types and levels of hearing loss, definition of deaf/hard of hearing, what it means to be Deaf, as well as defining social disconnectedness and perceived isolation. In the second section I briefly discuss the dialogue theory and otology and its relevance. In the next section I review a previous study on social disconnectedness and perceived isolation and further discuss the psychosocial theory and how it relates to deafness, stigmatization, language, and isolation.

This review of literature includes numerous readings obtained from the following online search databases: Google Scholar, PsycARTICLES, PsycINFO, SocINDEX, and Psychology Sage. A thorough search utilizing the following key words was conducted: *deaf, hard of hearing, social isolation, social disconnectedness, isolation, loneliness, perceived isolation, effects of hearing loss and isolation, and levels of hearing loss.* Searches from these key words allowed me to make more specific searches and to include other searches based on the references from reading relevant articles.

Overview

For the purpose of this study, deaf and hard of hearing was defined as the inability to hear sounds or when hearing levels are below the threshold considered to be normal hearing (Mahboubi, et al., 2012). The loss could be partial or total, mild, moderate, severe, or profound; an individual with a mild loss may have difficulty understanding spoken words in noisy environments, a moderate hearing loss may require the use of a

hearing device, individuals who have a severe loss may depend on lip-reading as well as a hearing device, and a profound loss would constitute being able to hear nothing at all (Nordqvist, 2012). Hearing loss can affect various areas of a person's life, including social functioning and psychological experiences (Martin & Bat-Chava, 2003). The primary barrier for deaf/hard of hearing individuals is the experience of communication barriers, this can cause significant strains in their relationships. There is a higher incidence of psychological and isolation issues when the hard of hearing/deaf individual begins life trying to fit into the hearing world than for those who associate primarily with deaf peers. However, there may be varying definitions of how a person identifies hearing loss based on personal preference or the time frame in which the individual loses their hearing. For the purpose of this dissertation, hard of hearing/deaf was defined as those who have a diminished ability to hear as others do, or the inability to understand speech despite amplification in sounds; the severity of hearing loss is categorized by louder than normal levels of sound needed before it can be detected the individual may rely on lip-reading, visual cues, or possibly American Sign Language (ASL). (Nordqvist, 2012). Furthermore, for the purpose of this study, the participants who are deaf/hard of hearing were not associated primarily with the Deaf culture, and do not rely solely on American Sign Language as their first language.

Types of Hearing Loss

When describing hearing loss there are generally three aspects that are considered: degree of hearing loss, type of hearing loss, and configuration of hearing loss (American Speech-Language-Hearing Association [ASHA], 2011). Experts distinguish

between normal, slight, mild, moderate, moderately severe, severe, and profound hearing loss as tested and noted at dB HL or decibels hearing level. Following is an explanation of how an audiogram measures in decibels for the differing hearing ranges:

- a normal hearing range is -10 to 15 dB,
- a slight loss still considered to be within a normal range is 16 to 20 dB HL,
- mild hearing loss range is 21 to 40 dB HL,
- moderate hearing loss is 41 to 55 dB HL,
- moderately severe hearing loss ranges between 56 to 70 dB,
- a severe hearing loss range is shown to be between 71 to 90 dB HL, and
- a profound hearing loss which includes deafness ranges at +91 dB HL.

The term deaf or deafness is commonly used to refer to individuals with severe to profound hearing loss (Mahboubi et al., 2012). There are three basic types of hearing loss. Sensorineural hearing loss happens if there is damage to the inner ear (the cochlea) or the nerve pathways that stem from the inner ear to the brain (ASHA, 2011).

Sensorineural hearing loss is the most common type of hearing loss and cannot be surgically or medically corrected. This type of hearing loss makes it difficult to hear even the faintest of sounds; even if speech is loud, the sounds may be muffled or unclear.

Some causes of sensorineural hearing loss are:

- aging,
- drugs that are toxic to hearing,
- genetic or hereditary hearing loss that runs in the family,
- exposure to loud noise,

- head trauma, and
- malformation of the inner ear.

Conductive hearing loss may occur when sounds are not easily sent through the outer ear canal to the eardrum and the ossicles or tiny bones of the middle ear (ASHA, 2011). This type of hearing loss makes sounds harder to hear and much softer.

Conductive hearing loss often can be corrected surgically or medically. Some of the possible causes of conductive hearing loss are:

- hole in the eardrum;
- fluid in the middle ear from allergies or colds;
- poor Eustachian tube function;
- too much earwax (cerumen);
- ear infection (otitis media);
- foreign body in the ear canal;
- malformation of the outer ear, middle ear, or ear canal; and
- swimmer's ear (external otitis).

Mixed hearing loss is a combination of sensorineural hearing loss and conductive hearing loss. This would mean there may be damage to the outer or middle ear as well as the auditory nerve or the inner ear, the cochlea (ASHA, 2011).

The configuration of hearing loss refers to the pattern and degree of the loss across tones or frequencies as seen in an audiogram (ASHA, 2011). Hearing loss that affects only high tones can be described as a high-frequency loss. The configuration would show this person with poor hearing in high tones and good hearing in low tones.

When low frequencies are affected the configuration would show good hearing for high tones and poor hearing for low tones. However, some hearing loss configurations are considered flat, which indicates the same level of hearing loss for both high and low tones.

Other descriptors utilized with hearing loss are unilateral versus bilateral, symmetrical versus asymmetrical, progressive versus sudden hearing loss, and fluctuating versus stable hearing loss (ASHA, 2011). Unilateral hearing loss (UHL) is defined as hearing that is normal in one ear with hearing loss in the other ear. The loss can range from mild to extremely severe. UHL can occur in both children and adults. Bilateral hearing loss is hearing loss in both ears.

One out of every 10,000 children are born with unilateral hearing loss, and close to 3% of school-age children have UHL (ASHA, 2011). These children are at a higher risk for having speech-language, academic, and social-emotional difficulties when compared to their hearing peers. This may be due to the fact that UHL is not readily identified and children do not receive intervention. Possible causes of UHL are as follows:

- Usher or Down Syndrome;
- hearing loss that runs in the family (hereditary or genetic);
- head injury;
- an inner, middle, or outer ear abnormality;
- traumatic brain injury (TBI); and
- exposure to loud noise.

Symmetrical hearing loss refers to the configuration and degree of hearing loss that are the same in each ear. Asymmetrical is a different degree and configuration of hearing loss in each ear. Progressive hearing loss is when hearing loss worsens over time. Sudden hearing loss happens immediately and requires medical attention to determine exact cause and possible treatment. Fluctuating hearing loss changes over time; it sometimes gets better, sometimes worse. Stable hearing loss does not change but rather remains the same.

Deafness and Culture

The debate on Deaf culture has included the question as to whether or not deafness represents the basis of a culture (Jones, 2002). Recently, deafness as a culture has emerged in which it is not considered a disability but a trait. However, historically, deafness has been seen as a physical impairment that is associated with such disabilities as motor and cognitive impairments and blindness. By utilizing the psychosocial theories of prejudice, language, and stigma, the factors that contribute to the change of deafness from a stigma to a cultural identity may be understood.

Deafness as an impairment has been perceived as an individual's inability to hear, which interferes with their ability to enjoy certain aspects of the mainstream culture such as music and conversation, as well as being able to respond to cues in the environment (Jones, 2002). The effects of deafness can be reduced through the use of technology such as assistive listening devices, which includes hearing aids and cochlear implants, and by utilizing oralism. Oralism is defined as the ability to read an individual's lips, which is sometimes termed lip-reading. Lip-reading is the term used when a hard of hearing

individual utilizes all clues from the person speaking in order to visually differentiate the sounds of words they are attempting to communicate. This individual may represent a societal and familial heritage that does not consider the lack of hearing to be an essential part of their day-to-day functioning. Therefore, the deaf individual is required to learn how to function as a member of the community and family.

Over the past few decades, proponents of the Deaf culture have emphasized that deafness is not a pathology and does not require fixing (Jones, 2002). In fact, advocates of the Deaf culture distinguish the culture by using an uppercase “D” for a Deaf individual who is a part of the culture and relies mainly on sign language to communicate, whereas the lowercase “d” is for someone who is not immersed in the culture and may signify deafness as a pathology. Individuals in the Deaf culture share the same beliefs and use the same language. The view of the Deaf culture holds that adults and children who are unable to hear are isolated from the mainstream due to difficulties in communication with hearing individuals. A previous study by Foster and Brown (1988) examined experiences of Deaf students in a mainstream school and reported that communication with hearing students was severely reduced due to the barriers involved. Furthermore, the study found that the Deaf individuals socialized mainly with one another due to their shared experiences and language.

If deafness is seen as a disability, the individual who is deaf will carry a stigma of “lacking” a human characteristic (Jones, 2002). This individual who is stigmatized needs to view the stigma as positive so that they may sustain high self-esteem. Therefore, the Deaf individual would need to regard their disability as a positive part of their identity or

disassociate from the disability stigma altogether. Those with disabilities who identify with other individuals of the same group do not feel stigmatized, but instead feel they are members of a culture or group (Jones, 2002). With this perspective an individual who identifies with other deaf people may be able to maintain feelings of self-worth. Furthermore, individuals in the Deaf culture are bound together by the experience of being deaf; they do not feel that being deaf signifies a loss but is a distinctive perspective of their world.

Social Disconnectedness

Social disconnectedness is one type of social isolation that is characterized by low levels of participation in social activities as well as the lack of social relationships (Cornwell & Waite, 2009). It can be further described as a limited or lack of social contact that an individual has with others to include situational factors that may cause them to feel uncomfortable or out of place. Social disconnectedness has been found to display atrophy, loss, or deterioration of internal bonding and can further be identified by aimlessness and apathy with regards to major life experiences, as well as the deterioration of external bonds (Brennan & Auslander, 1979). Social disconnectedness can be described by infrequent contact with others as noted by situational aspects, such as the lack of involvement in groups, social events, or limited social interactions.

Previous studies have indicated that individuals who are older tend to experience feelings of either social disconnectedness or perceived isolation, which affects their health in a more negative manner, however no studies were done on younger populations (Cornwell & Waite, 2009).

Perceived Isolation

Perceived isolation can be defined as a perceived lack of social support and loneliness (Cornwell & Waite, 2009). It is further described as a subjective experience, or a lack of social resources, support, or companionship. Not belonging or feelings of loneliness can be described as an individual's perceived inadequacy of companionship or intimacy when related to their interpersonal relationships or compared to relationships they would prefer to have. Yamaguchi, Smith, and Ohtsubo (2016) stated that interactive dependable relationships are a vital part of life; experiences associated with feelings of social isolation can have various negative effects. For example individuals who feel isolated socially are at a higher mortality risk (Holt-Lunstad, Smith, & Layton, 2010), these individuals also tend to be less healthy (House, Landis, & Umberson, 1988), and not as happy (Argyle, 2002; Myers & Diener, 1995) as those who do not feel socially isolated.

Van Baarsen, Snijders, Smit, and Van Duijn (2001) discussed how loneliness was indicated more so by the loss of a spouse, these feelings of loneliness could better be explained as a perceived lack of interpersonal companionship or intimacy. Holt-Lunstad, Smith, Baker, Harris, and Stephenson (2015) stated that having infrequent social contact, living alone, and fewer social ties are indicators of social isolation. Furthermore, Holt-Lunstad et. al. (2015) suggested that loneliness is a subjective emotional state or the perception of social isolation.

Distinguishing between perceived isolation and social disconnectedness recognizes an important aspect regarding how people manage their social lives (Cornwell

& Waite, 2009). For some people the perception of social resources is completely unrelated to the amount of time spent alone. Loneliness is weakly correlated with the frequency of interaction in an individual's network and the social network size. It is said that the degree in which individuals perceive themselves as isolated is based on their individual characteristics such as a person's personality, cognitive schemas, and neuroticism. Some research suggests that less than half the variation in loneliness is genetic.

Dialogue Theory and Ontology

The principle of the dialogue model with regards to deaf identity is an understanding through insightful bicultural dialogue and embraces postmodern conflicts between opposing identities (McIlroy & Storbeck, 2011). The increasing understanding and awareness of the meaning of being deaf extends beyond all outdated "first wave of identity politics" and is much more of a variation than the social or medical model. This newfound approach allows for an appreciation of the range and complexity of deaf ontology. The identity of the deaf individual has been traditionally defined around the differences in the person's disability. Looking at this perspective, deaf identity has been said to be either a Deaf individual with a difference or a disabled deaf individual. Therefore, ontology is part of the discussion related to deaf identities and goes further beyond an individual being Deaf with an uppercase "D" or deaf with a lowercase "d".

McIlroy and Storbeck (2011) reported that the statement "to be or not to be" is a perception of ontology, which is defined as an individual's identity, yet excludes the opposite identity. It has been proposed that the statement should be written as "to be and

not to be” meaning the individual should embody all of their humanity. Identity should be looked at in terms of self-definition regarding the differences of being Deaf with an uppercase D or deaf with a lowercase d. Further exploring these differences will help in understanding how a deaf individual deals with bicultural tension in majority and minority cultural values. According to McIlroy and Storebeck (2011) the tension includes various characteristics of both cultures, yet there is no clear understanding of how the processes work within or upon us.

Deaf identities can take an individual in one of two directions (McIlroy & Storebeck, 2011). The medical model is one direction and is explained as an individual who identifies their hearing loss as something they need to overcome. The second direction is based on the social model and entails the individual defining themselves as a primary member of a sociolinguistic minority, recognizing deaf rights. The two choices display a strong opposing belief of the identity of a deaf individual. The firm cultural boundaries are what have been identified as the first wave of deaf identity politics.

The dialogue model is believed to be closely associated with the most recent changes of the “second wave deaf identity politics” (McIlroy & Storebeck, 2011). The concept of the second wave deaf identity politics believes that there is a greater acceptance and tolerance of diversity across and within the hearing and deaf communities. The shift away from the first wave deaf politics with only the cultural and medical perspectives of an individual’s deafness allows for the progressive discussion of bicultural identity.

A feature of deaf identity politics fits well within the postcolonial perspective of dialogue and the reconciliation between former victim and oppressor (McIlroy & Storebeck, 2011). It has been suggested that oppression is the loss of an individual's voice. This would mean that if a deaf individual believes they are disabled, it is usually related to shame or contempt that they have experienced in the hearing world, these experiences would thereby negatively affect their dignity. This would further explain how the dialogue model's viewpoint of understanding or resolution through productive dialogue applies to the deaf individual. Furthermore, tolerating differences can be extremely valuable to minorities such as deaf individuals in reclaiming their dignity.

When discussing the dialogue model it should be understood that it is not a metatheory in the explanation of deaf identity in its entirety (McIlroy & Storebeck, 2011). Rather, the dialogue theory is an interpretive model, which theorizes how deaf individuals experience the world that goes beyond the social/medical binary. The dialogue model is helpful in understanding the struggles of minorities. This includes deaf individuals who fall through the cracks in the social and medical models. It further helps researchers in understanding how deaf individuals make sense of displacements and disconnections in their lives. Furthermore, deaf individuals typically utilize the standard first wave social and medical model rhetoric referring to hard of hearing, deaf, and Deaf.

Psychosocial Theory

The psychosocial theory states that within each stage of life an individual must cope with social realities in order to successfully adapt and display patterns of normal development (Shaffer, 2002). Furthermore, it would suggest cultural influences play a

much larger part in an individual's development beginning in childhood. However, with the psychosocial theory it does not end at childhood or adolescence, but rather continues throughout life. Erikson's psychosocial theory, which was developed in the 1950's, has been reprinted numerous times over the years and has dominated the field. The best understanding of psychosocial development is as an incorporated process encompassing an individual's entire life cycle through eight stages (Shaffer, 2002).

The understanding of identity has changed over the years and is tied in with the psychosocial theory (Hintermair, 2008). Erickson's psychosocial theory was able to describe that an individual's social and emotional needs are important. Processes in life such as reliability, consistency, stability, and continuity determine a person's development. Therefore, Erickson's theory has provided invaluable information in which to consider developmental issues related to hard of hearing and deaf individuals. A study by Bat-Chava (as cited in Hintermair, 2008) discussed the findings of the differing acculturations, which included the bicultural, negative, deaf, and hearing; the research showed that there is a strong connection between the variables in each group such as the value of utilizing a hearing aid, the person's age, and when the loss of hearing occurred. For example the hard of hearing and deaf were more acculturated than the hearing and bicultural individuals who experienced their hearing loss later in life. On the other end of the spectrum the bicultural individual perceived more value in the use of a hearing aid than the deaf (Hintermair, 2008). Overall, a secure option for psychosocial well-being seems to be bicultural acculturation.

The basis for a person's quality of life is made up of several dimensions or components, which include an individual's social relationships, ability to cope with life, and constitution (Hintermair, 2008). Acculturation is extremely significant in an individual's psychosocial well-being. Identity research has looked at studies that focus on issues related to the identities and socio-emotional development of hard of hearing and deaf people. Individually each person has their own life experiences in varying situations, therefore they would continually be changing or repairing their identity. Sheridan (as cited in Hintermair, 2008) reported, "Deaf identities are said to be marked by fluidity and becoming. As such, they are very much in the making" (p. 280), as well there is a lot of emphasis on numerous constructions of identity as opposed to a singular "deaf identity."

Previous studies done on self-esteem in hard of hearing and deaf individuals suggested that the circumstances in how these individuals grew up as well as their current circumstances were neglected and the studies had omitted the methodology (Hintermair, 2008). Communication and how these individuals were raised showed significant results in self-esteem levels. An analysis of the studies showed children of deaf parents had a higher level of self-esteem than those with hearing parents. It also showed that deaf individuals whose parents utilized sign language over an oral upbringing had higher levels of self-esteem. Furthermore, there was a positive correlation between self-esteem and group identification.

Review of Previous Study on Social Disconnectedness and Perceived Isolation

Cornwell and Waite (2009) conducted a study on social disconnectedness, perceived isolation, and the health of older adults. The data was utilized from the National Social Life, Health, and Aging Project (NSHAP); this consisted of 3,005 population-based surveys of older adults between the ages of 57 and 85, which was conducted in 2005 and 2006. The purpose of the research was to study a variety of indicators of isolation and capture the information using two scales to determine perceived isolation and social disconnectedness and the effects they have on the mental and physical health of an individual.

It has been reported that previous research acknowledged an extensive range of indicators of social isolation that pose health risks, including feelings of loneliness, living alone, infrequent participation in social activities, and having a small social network (Cornwell & Waite, 2009). Furthermore, various forms of isolation are seldom studied together. In this particular study Cornwell and Waite (2009) utilized the data from the population-based surveys and combined multiple indicators of isolation into scales assessing perceived isolation (e.g., perceived lack of social support, loneliness) and social disconnectedness (e.g., infrequent participation in social activities, small social network). They specifically studied the extent of which perceived isolation and social disconnectedness have distinct associations with mental and physical health amongst older adults. The results indicated that perceived isolation and social disconnectedness are independently associated with lower levels of self-rated physical health. The

researchers felt that perceived isolation and social disconnectedness should be considered simultaneously.

The findings have determined that perceived isolation and social disconnectedness are not interchangeable indicators (Cornwell & Waite, 2009). Rather, they have distinct and separate associations with mental and physical health. Social disconnectedness has been reported to be associated with the worsening of physical health, despite perceived lack of social support or feelings of loneliness. Although, with all levels of social connectedness or disconnectedness, the perception that an individual lacks social resources may in fact affect their physical health. When looking at the outcomes of physical health, both perceived and situational isolation matter.

However, when discussing mental health this is not the case (Cornwell & Waite, 2009). The relationship between mental health and social disconnectedness would appear to operate through strong associations between mental health and perceived isolation. These findings support research, noting links between aspects of subjective isolation, more specifically mental health and loneliness. Although, in prior work the role of perceived isolation as a mediator in the relationship between mental health and social disconnectedness has not been demonstrated. The results of this study would suggest that older adults who are socially disconnected have worse mental health only to the extent that they feel isolated. Lastly, the researchers have stated that they find no theoretical reason that perceived isolation and social disconnectedness should be different amongst younger adults. Cornwell and Waite (2009) felt that further research in examining the contributions of the two forms of isolation with other ages would assist in the

understanding of how changes in connectedness affect health in a person's overall life course.

Social Disconnectedness and Perceived Isolation Scales

Cornwell and Waite (2009) are the developers of the Social Disconnectedness and Perceived Isolation Scales. While working on their research with the data utilized from the National Social Life, Health, and Aging Project (NSHAP), Cornwell and Waite (2009) noted that previous research utilized indicators of various aspects of isolation, however not one single indicator captured the full complex nature of social isolation. They felt that one of the strengths of the data obtained from NSHAP was that it had a variety of data pertaining to social connectedness measures. Furthermore, on the development of the Perceived Isolation Scale three of the measures were developed from a previous study done by Hughes, Waite, Hawkey, and Cacioppo (2004). No further information is found on these scales.

Conclusion

In conclusion, social disconnectedness and perceived isolation could potentially affect anyone regardless if they are hearing, hard of hearing, or deaf as well there can be varying factors as to why these symptoms are experienced by each individual. However, determining if there is in fact a significant difference in social disconnectedness and perceived isolation within hard of hearing/deaf individuals is important in determining if the cause is due to their hearing loss or if other factors are involved. The dialogue theory is one theory that explains the experiences a deaf individual may face due to shame or contempt, which could negatively impact the individual's dignity and therefore cause

disconnectedness or isolation. The social disconnectedness and perceived isolation scales assess and determine the presence of disconnectedness and isolation that an individual may be experiencing. From this information further research can determine if in fact these feelings are primarily based on the loss of hearing or other factors in their lives. Furthermore, should the experiences be due to hearing loss it is imperative further research be conducted in order to predict, prevent, and better assist clinicians in helping the deaf individual.

Chapter 3: Research Method

Introduction

This chapter provides a description of the quantitative research project, an overview of the research design, and the approach I utilized for this study. This includes a discussion concerning the setting, the participants, a description of the population, why this particular sample was utilized, and the conditions for their selection. In addition, the discussion will briefly cover the instruments used (social disconnectedness and perceived isolation scales) as well as a discussion surrounding the results of the data analysis.

Research Design and Approach

This was an initial quantitative investigational study to determine if perceived isolation and social disconnectedness were more predominant in deaf/hard of hearing women who were 18 years of age and older and whether additional research is warranted. While there is considerable anecdotal evidence supporting the conclusion that deaf/hard of hearing women feel far more socially isolated than their hearing counterparts, there is little empirical evidence supporting any concrete conclusions.

Through an extensive Internet search utilizing Google Scholar as well as the Walden Library via PsycARTICLES, PsycINFO, SocINDEX, Psychology Sage, Thoreau, and Academic Search Complete databases, I found that this research question has not specifically been studied. A previous study utilizing the social disconnectedness and perceived isolation scales determined if perceived isolation, social disconnectedness, and health effects existed amongst older adults (Cornwell & Waite, 2009); the scales have not been used to examine younger populations or in the deaf/hard of hearing

population. I received approval from Walden University's Institutional Review Board committee (#05-27-16-0082193) for this study.

Scaled measurements were assessed from the responses between social disconnectedness at one end to perceived social isolation at the other end using two Likert-type scale questionnaires. The social disconnectedness scale is an 8-point questionnaire while the perceived social isolation scale is a 9-point questionnaire. Through power of analysis prediction when utilizing an independent samples *t*-test and the data collected from the study, I concluded that approximately 50 participants would be sufficient to determine significance amongst the variables. The benefits of the collection of primary data are that the research has not been conducted previously and I will have access to all phases and collection of the original research.

Participants and Sample Size

Due to the sparse nature of the population and the constraints of the study (women within a specific age group 18 years of age and older), I expected that the sample size for this study would be as high as 50 individuals but may be as low as 30 for both deaf/hard of hearing women as well as 50 to 30 hearing women. Sample sizes fewer than 30 people may still provide valuable information, although they would only provide enough data to proffer general information regarding trends. Because the purpose of this study was to determine whether further research is warranted, utilizing the above sample size provided enough data to identify trends and make recommendations with regard to further research.

The information regarding the participants in this study was accessed through deaf and hard of hearing groups via social media networks, which included Deaf Pride and the Community for the Deaf and Hard of Hearing, and the Independence Center, located in Colorado Springs. Schools included Pikes Peak Community College and the University of Colorado at Colorado Springs as well as other agencies that work with the deaf/hard of hearing population such as the Vocational Rehabilitation Office, and the local Ear, Nose, and Throat Clinics. The deaf/hard of hearing women had varying types of hearing loss but did not consider themselves Deaf or a part of the Deaf culture; rather, they considered themselves bicultural (e.g., not completely hearing nor completely deaf). Hearing women with no hearing loss were accessed through the colleges and social media sites including Facebook. The data collected was intended for the sole purpose of this dissertation as the question for this research has not specifically been studied.

Instrumentation

The social disconnectedness scale has eight items and the perceived isolations scale consists of nine items. Previous research studied various aspects of isolation, but no single indicator fully shows the multifaceted nature of social isolation (Cornwell & Waite, 2009). The social disconnectedness scale assesses responses regarding the lack of connectedness to social groups and other individuals. The scale itself shows an internal consistency as well as moderate to strong item-rest correlations. Two components the social participation and the social network characteristics account for approximately 54% of the variance.

The eight variables utilized in the social disconnectedness scale are standardized; their values are then averaged and the computed scores are reversed indicating disconnectedness and not specifically connectedness (Cornwell & Waite, 2009). All findings in this current study were based on the assessed items showing lack of participation with regard to social activities outside the home. Furthermore, the questions asked how often the individual socialized with friends and family, volunteered, and participated in organized meetings.

The social network features encompass four of the scale items; in order to capture a better understanding of the subjects' social networks the following was further asked:

During various times, most people tend to discuss things in their lives that are important with others. An example would be issues you are having, bad or good things that happen to you, or important issues you may have. When you look back over the past 12 months, who are the people you most often discuss the things that are important to you with? (Cornwell & Waite, 2009, p 35)

First, the number of members the respondent identifies indicates the social network size (Cornwell & Waite, 2009). Second, those who live in the household are considered a part of respondents' social network. The higher the number of network members who reside in the home results in relatively fewer amount of connections with individuals outside of the home. Third, social network range is indicative of the extent to which the subject is connected to various types of people (e.g., coworkers, friends, spouse). Fourth, the frequency of exposure to the individual's network members is based on the frequency of contact they have.

Furthermore the social disconnectedness scale incorporates the number of friends that the subject reports (Cornwell & Waite, 2009). This excludes family members including spouses, instead indicating the people who are considered to be closest friends or who are pretty good friends. Mean response does not differ with the collection mode. The question is modularized so that the subjects answered in an interview or in the questionnaire.

The perceived isolation scale utilizes a scale that combines nine items assessing loneliness and perceived lack of social support (Cornwell & Waite, 2009). The perceived isolation scale shows an acceptable internal consistency of $\alpha = .70$ and moderate to strong item-rest correlations. Approximately 46% of the variance is composed of two components, perceived social support and loneliness.

Six of the nine items in the scale were indications of perceived social support (Cornwell & Waite, 2009). With regards to social support from family members, the subjects were asked, “How often can you rely on your family member to help if you have a problem?” and “How often can you open up with your family member to discuss your worries?” The two questions were also asked with regards to the respondent’s spouse, friends, or current partner. Mean responses did not differ based on collection modes.

Included in the perceived isolation scale were three items to further determine loneliness (Cornwell & Waite, 2009). These questions were “How often do you feel isolated from others?” “How often do you feel that you lack companionship?” and “How often do you feel left out?” The perceived isolation scale is constructed by standardizing

each individual item, then averaging the scores (Cornwell & Waite, 2009). The higher the scores the greater indications of perceived isolation being present in the subjects.

Research Questions and Hypotheses

The research questions and hypotheses for this study were:

RQ1: Are there differences in social disconnectedness among hard of hearing/deaf women and hearing women based on their scores on the social disconnectedness scale?

H_01 : Social disconnectedness is not different between deaf/hard of hearing women and those with normal hearing.

H_a1 : Social disconnectedness is different between deaf/hard of hearing women and those with normal hearing.

RQ2: Are there differences in perceived isolation among hard of hearing/deaf women and hearing women based on their scores on the perceived isolation scale?

H_02 : Perceived isolation scores will not be different between deaf/hard of hearing women and those with normal hearing.

H_a2 : Perceived isolation scores are different between deaf/hard of hearing women and those with normal hearing.

Data Analysis

This study utilized data compiled from research gathered from social media sites for the deaf and hard of hearing, deaf/hard of hearing social groups, the local community college, and advocacies for deaf/hard of hearing individuals. All information is organized in an ordinal or ratio fashion. An independent samples t test was utilized in

order to analyze the above-mentioned hypotheses. The independent variable, levels of hearing had two types: no hearing loss and hearing loss (deaf/hard of hearing). The dependent variables were the results of the scales: (I) social disconnectedness and (II) perceived isolation. The results determined if there was a statistical difference in social disconnectedness and perceived isolation amongst deaf/hard of hearing and hearing women according to the results of both scales.

Summary

In summary, the social disconnectedness and perceived isolation scales were utilized to determine if there was a significant difference in social disconnectedness and isolation in relation to deaf/hard of hearing women and hearing women 18 years of age and older. The sample was from the recent data collected from willing participants in both populations. The final results consisted of $n = 97$ women, which included 52 hearing women and 45 hard of hearing/deaf women. The participants were chosen based on their level of hearing as well as their ability to fall within certain necessary criteria (i.e. being able to understand and read English, being able to read above a fourth grade level, and having or not having a hearing loss). The results of this study were intended to provide a foundation for future research in order to educate others in this specific area. In Chapter 4 I discuss the results of the collected data and findings. Chapter 5 provides a detailed discussion of the entire study, including a detailed account of the findings and their meanings, as well as the implications of the research for social change.

Chapter 4: Results

Introduction

This study was designed to answer the following questions: Is there a statistically significant difference in social disconnectedness and perceived isolation when comparing hard of hearing/deaf women and hearing women who are 18 year of age and older? In this study I used a quantitative research design. An independent samples *t* test was performed to determine if there was a significant difference between hard of hearing/deaf and hearing women regarding their social disconnectedness and perceived isolation scores. I report and explain the results of the data collected in greater detail in the following sections.

Data Analysis

I compiled the study data anonymously from Questipro.com. The information was then collected in an SPSS datafile. The results showed if there was a statistically significant difference with regards to social disconnectedness and perceived isolation in hard of hearing/deaf women and hearing women 18 years of age and older.

Data Preparation

Prior to all statistical analyses, the following steps were taken to prepare the data. The original dataset had 458 responses. Among these 458 responses, six cases were duplicates, 15 cases were flagged as test cases, which did not meet the criteria to be considered valid data according to questionpro.com, and 340 cases had missing data, which resulted in questionpro.com not releasing those responses from the participants. As such, these cases were removed from the dataset for the purposes of all statistical

analyses. This resulted in a final dataset of 97 valid cases. The removal of the aforementioned cases represents a 78.9% attrition of cases from the dataset. This would suggest that approximately 3 out of 4 people who began the survey did not complete it in its entirety. This signifies a large group of participants who are unrepresented for this particular study. Two variables were constructed from original data so as to effectively model each variable in question:

The variable that measured a respondent's social disconnectedness was formed as a composite of the three questions that measured social disconnectedness in the survey. The three questions were added together and then divided by the total number of items present in the scale (i.e., three). Using this coding format allowed the average of the composite scale to be interpreted as a function of the original measurement metric of the scale (i.e., a scale of 1 to 7) where higher scores reflected greater levels of social disconnectedness.

The variable that measured a respondent's perceived social isolation was formed as a composite of the nine questions that measured perceived social isolation in the survey. The nine questions were added together and then divided by the total number of items present in the scale (i.e., nine). Using this coding format allowed the average of the composite scale to be interpreted as a function of the original measurement metric of the scale (i.e., a scale of 1 to 3) where higher scores reflected greater levels of perceived social isolation. It should also be noted that the final three items of the scale were reverse-coded in order to preserve the logical flow of all scale items, as well as to optimize Cronbach alpha reliability scores.

The variable that marked hearing status was originally a three-category variable with responses including hearing, either hard of hearing or deaf, or identification primarily with the Deaf community. This variable was reclassified into a binary variable that indicated the respondent was either hearing or was hard of hearing/deaf and did not identify primarily with deaf community. The reclassification of this variable was done to align with the tenets of the research questions and research hypotheses.

Research Questions, Hypotheses, and Statistical Results

RQ1: Are there differences in social disconnectedness among hard of hearing/deaf women and hearing women based on their scores on the social disconnectedness scale?

H_01 : Social disconnectedness is not different between deaf/hard of hearing women and those with normal hearing.

H_a1 : Social disconnectedness is different between deaf/hard of hearing women and those with normal hearing.

RQ2: Are there differences in perceived isolation among hard of hearing/deaf women and hearing women based on their scores on the perceived isolation scale?

H_02 : Perceived isolation is not different between deaf/hard of hearing women and those with normal hearing.

H_a2 : Perceived isolation is different between deaf/hard of hearing women and those with normal hearing.

The following are the results of the statistical analyses:

1. No statistically significant relationship was found between hearing status/hard of hearing or deaf status and social disconnectedness for women. As such, there is no support for RQ1; the statistical decision is to fail to reject the null hypothesis.
2. A statistically significant relationship was found between hearing status/hard of hearing or deaf status and perceived isolation. Those women who were hard of hearing or deaf reported lower mean scores on the perceived isolation scale than those persons who had no hearing problems.

Descriptive Statistics

I calculated percentages and frequencies for all categorical variables for the entire sample (Table 1). One-third of the respondents (34.0%) were between the ages of 30 and 39. Roughly one in every three respondents (33.8%) had between four and nine friends. The sample was roughly split between hearing (53.6%) and deaf/hard of hearing respondents (46.4%).

Table 1

Percentages and Frequencies, Study Variables

	Frequency	Percent
Gender of respondent		
Male	0	0.0%
Female	97	100.0%
Age of respondent		
18 to 29	16	16.5%
30 to 39	33	34.0%
40 to 49	22	22.7%
50 to 59	14	14.4%
60 to 69	10	10.3%
70 to 79	2	2.1%
Number of friends a respondent has		
None	1	1.0%
One	4	4.1%
2 to 3	29	29.9%
4 to 9	30	30.9%
10 to 20	12	12.4%
More than 20	16	16.5%
Don't know	5	5.2%
Hearing status		
Hearing	52	53.6%
Hard of hearing/deaf	45	46.4%
<i>N</i>	97	100.0%

I calculated means and standard deviations for all variables for the entire sample (Table 2). The midpoint of the social disconnectedness scale is 4.0. The mean score is over the midpoint. The midpoint of the perceived isolation scale is 2.0. The mean score is above the midpoint.

Table 2

Means and Standard Deviations, Study Variables, All Respondents

Variable	M	SD	Min.	Max.
Social Disconnectedness Scale	4.18	1.37	1	7
Perceived Isolation Scale	2.37	0.44	1	3

Note: n = 97.

Independent Samples *t*-Test Results

The results of a series of independent samples *t* tests are presented in Table 3. In this table, hearing status/hard of hearing or deaf status is the independent variable, and the two scales of social disconnectedness and perceived isolation are the dependent variables. As Ritchey (2008) notes, an independent samples *t* test is appropriate when an independent variable is dichotomous in nature (i.e., only two categories) and a dependent variable is continuous in nature (i.e., a scale). These conditions are met in the current analysis scenario.

Table 3
Independent Samples t-Test Results

Variable	Hearing		Hard of hearing/deaf		<i>t</i>	<i>df</i>	<i>p</i>
	M	SD	M	SD			
Social disconnectedness scale	3.98	1.38	4.40	1.35	-1.510	95	0.134
Perceived isolation scale	2.48	0.39	2.26	0.47	2.524	95	0.013

Note: n = 97.

No statistically significant relationship exists between hearing status/hard of hearing or deaf status and social disconnectedness ($t = -1.510$, $df = 95$, $p = .134$). A statistically significant relationship does exist between hearing status/hard of hearing or deaf status and perceived isolation. Those persons who are hard of hearing/deaf ($M = 2.26$) reported lower mean scores on the scale than those persons who have no hearing problems ($M = 2.48$). The difference was statistically significant ($t = 2.524$, $df = 95$, $p = .013$).

Furthermore, the same data that was collected for this study was also calculated into SPSS for women 18 to 49 years of age as well as 50 years of age and older who are hard of hearing/deaf and hearing in order to compare if there is a difference between the younger and older age groups. The data showed that women 18 to 49 who are hard of hearing/deaf ($M = 4.53$) reported higher mean scores on the social disconnectedness scale than those persons who have no hearing problems ($M = 3.86$). The difference was statistically significant ($t = 2.056$, $df = 69$, $p = .044$). No statistically significant

relationship exists between hearing status ($M = 2.45$) and hard of hearing/deaf status ($M = 2.32$) with regards to perceived isolation ($t = 1.411$, $df = 69$, $p = .163$).

Independent Samples *t*-Test Results

The results of a series of independent samples *t* tests are presented in Table 4. In this table, hearing status/hard of hearing or deaf status is the independent variable, and the two scales of social disconnectedness and perceived isolation are the dependent variables. It should be noted that only respondents age 18 to 49 have been used in the above analyses.

Table 4

Independent Samples t-Test Results

Variable	Hearing		Hard of hearing/deaf		<i>t</i>	<i>df</i>	<i>p</i>
	M	SD	M	SD			
Social disconnectedness scale	3.86	1.39	4.53	1.32	2.056	69	0.044
Perceived isolation scale	2.45	0.40	2.32	0.37	1.411	69	0.163

Note: $n = 71$.

Lastly, the data reported for women 50 and older showed no statistically significant relationship exists between hearing status ($M = 4.31$) and hard of hearing/deaf status ($M = 4.06$) with regards to social disconnectedness ($t = 0.472$, $df = 24$, $p = 0.641$). A statistically significant relationship exists between hearing status/hard of hearing or deaf status and perceived isolation. Those persons who are hard of hearing or deaf ($M = 2.08$) reported lower mean scores on the scale than those persons who have no hearing problems ($M = 2.55$). The difference was statistically significant ($t = 2.293$, $df = 24$, $p = 0.031$).

Independent Samples *t*-Test Results

The results of a series of independent samples *t* tests are presented in Table 5. In this table, hearing status/hard of hearing or deaf status is the independent variable, and the two scales of social disconnectedness and perceived isolation are the dependent variables. It should be noted that only respondents age 50 and older have been used in the above analyses.

Table 5

Independent Samples t-Test Results

Variable	Hearing		Hard of hearing/deaf		<i>t</i>	<i>df</i>	<i>p</i>
	M	SD	M	SD			
Social disconnectedness scale	4.31	1.32	4.06	1.42	0.472	24	0.641
Perceived isolation scale	2.55	0.34	2.08	0.66	2.293	24	0.031

Note: n = 26.

Summary

In conclusion, this study showed a statistically significant difference from the results of the perceived isolation scales between the hard of hearing/deaf and hearing women 18 years of age and older as well as for those 50 years of age and older. The results from those participants who identified as hearing reported increased feelings of perceived isolation when compared to their hard of hearing/deaf counterparts. The results of the data from the social disconnectedness scale did show that there was a statistically significant difference in these feelings between hard of hearing/deaf women and hearing women 18 to 49 years of age. The results from those participants who identified as hard of hearing/deaf reported increased feelings of social disconnectedness

when compared to the hearing women. However there was no statistically significant difference for social disconnectedness for the 18 years of age and older and the 50 years of age and older group. In Chapter 5 I discuss the findings further, along with implications for social change and recommendations for future studies.

Chapter 5: Discussion

Introduction

The overall purpose of this study was to determine if there was a significant difference in feelings of social disconnectedness and perceived isolation amongst hard of hearing/deaf women and hearing women 18 years of age and older. The knowledge gained from this study could contribute valuable information pertaining to social disconnectedness and perceived isolation and assist in determining what factors specifically affect these individuals. Furthermore, clinicians who work with individuals who experience feelings of social disconnectedness and perceived isolation will have a clearer understanding of the conditions, particularly if they pertain to hearing loss, age, or other mitigating factors.

The overall purpose of this chapter is to present the implications of the study's findings. Through the study I intended to answer the question of whether there is a statistically significant difference in social disconnectedness and perceived isolation between women 18 years of age and older who are hard of hearing/deaf and hearing. This study offered limited knowledge on the effects of hearing loss and feelings of social disconnectedness and perceived isolation. However, this study provided enough data to infer that there is in fact a significant difference between the two groups, including the results from the 18 to 49 and 50 and older age groups with regards to feelings of social disconnectedness and perceived isolation. I discuss these findings further in this chapter. Given the nature and complexity of this study, Chapter 5 is broken down into the following sections: explanation and interpretation of findings, implication for social

change, overall recommendations, recommendations for future studies, and concluding statements. These sections will assist in clarifying the findings and recommendations that can be made from this study to encourage future studies that could also result in positive social change.

Explanation and Interpretation of Findings

In this study I explored differences in feelings of social disconnectedness and perceived isolation in hard of hearing/deaf and hearing women 18 years of age and older. I made a further comparison for women 18 to 49 and 50 and older. The results of this study showed that there was no statistical difference in feelings of social disconnectedness amongst the women who were 18 years of age and older and 50 years of age and older based on the results as noted previously. However, the results collected from the 18 to 49 years of age group showed a significant difference, wherein hard of hearing women experienced increased feelings of social disconnectedness more so than the hearing women. When looking at the results of the same populations regarding feelings of perceived isolation, women who were hard of hearing/deaf actually showed a lower mean score than hearing women; therefore, the data suggests that hearing women 18 years of age and older and 50 years of age and older experienced increased feelings of perceived isolation more so than their hard of hearing/deaf counterparts.

Initially, my prediction was that hard of hearing/deaf women would generally feel more isolated and disconnected when compared to hearing women based on previous research. Instead, the results indicated that hard of hearing/deaf women 18 to 49, are not as susceptible to feelings of perceived isolation, but they do experience increased feelings

of social disconnectedness more so than hearing women. This disconnect could be contributed to communication barriers, childhood traumas, and shame that the hard of hearing/deaf individual experiences. These feelings of social disconnectedness could further be attributed to a lack of social contact, involvement in social activities, or feeling uncomfortable in social situations.

Furthermore, hard of hearing/deaf women 18 to 49 scored lower on the perceived isolation scales, suggesting they experience feelings of loneliness less than their hearing counterparts. This may be due to having a higher self-esteem, which is possibly associated to identifying with others who are hard of hearing/deaf. Hearing loss may not be entirely interrelated to feelings of loneliness but rather other mitigating factors. However, this may not be the only cause as it is important to note that perceived isolation is described by an individual's subjective experience, which is characterized by a lack of support, companionship, or a lack of social involvements.

This would be suggestive of the findings for the hearing women 18 and older and 50 and older group. Since loneliness is subjective in nature, it is believed to be associated more closely to a person's satisfaction with their peers. Perceived isolation can be characterized by a shortfall in companionship or the perception that an individual's current interpersonal or intimate relationship is deemed inadequate when compared to the relationship the individual would prefer to have. Overall, the results of this study would suggest that hard of hearing/deaf women are not as challenged as previous research would suggest, but rather they are stronger in some respects when compared to women with no hearing loss. Due to the lack of research on social disconnectedness and

perceived isolation in younger populations the results of this study could build upon the findings from the previously mentioned study by Cornwell and Waite (2009) in other populations.

The results from this study showed that a majority of the hard of hearing/deaf and hearing respondents had more social ties, which included more friends and frequent social contact with these friends as well as family members. They claimed to have more emotional and instrumental support overall, which included their spouse/partner. The hard of hearing/deaf and hearing respondents further reported that they could rely on their spouse/partner, friends, and family when they needed to talk about their problems or if they had worries. Furthermore, a majority of all the respondents expressed feelings of loneliness and isolation some of the times rather than often.

Waite and Hughes (1999) stated that individuals who receive instrumental support from within their network are more socially connected, which helps reduce negative mental health issues as well as helps develop active coping skills. Ernst and Cacioppo (1999) reported that there is a decreased level of certain negative aspects of mental health in individuals not affected by feelings of loneliness as well those who have higher levels of social connectedness or support experience a greater sense of self. Cornwell and Waite (2009) stated that social connectedness is not specifically defined based on a person's age but rather their overall experiences in life and the ability to cope. This research would suggest that a more in-depth study into how various factors in a person's life (e.g., type of hearing loss, onset of hearing loss, past and current life experiences,

etc.) may determine the overall effects of social disconnectedness and perceived isolation.

Limitations of Study

The current study had several limitations. The first limitation was the reliance on self-reported measures, which restricted my ability to objectively measure perceived isolation and social disconnectedness with regards to an individual's hearing loss. Robins, Fraley, and Krueger (2009) stated that there were several issues that could be deemed problematic with self-reported data that would ultimately suggest the inaccuracy of the given responses. Despite their best efforts to be insightful and straightforward, a participant's answers may be based on their own self-impression, management, or awareness. Furthermore, Robins et. al. suggest the participant may exaggerate, enhance, deceive, or deny responses to maintain a certain self-perception. This impreciseness of responses would cause the collected data to be construed as inaccurate. Therefore, being that self-reported measures are difficult to control, it is possible that the participants may have answered the survey a certain way in order to maintain a specific self-image.

The second limitation of this study was the lack of prior research. This limitation made it difficult to form a solid foundation for the research conducted in this study. It did however allow for a starting point to future studies. I believe that it would be beneficial to increase the longitude of the study while incorporating other elements that may affect how the person experiences feelings of disconnect or subjective isolation. I also recommend increasing the overall sample population, which would allow for a more in-depth understanding and explanation as to what factors specifically contribute to

increased feelings of both social disconnectedness and perceived isolation. Furthermore, the current research allowed me to approach my analyses with a theoretical focus on perceived isolation and social disconnectedness in hard of hearing/deaf and hearing women who are 18 years of age and older.

Another possible limitation could be attributed to disparities of each individual's maturity level, differing life experiences, or other specific conditions of the selected participant (e.g. mental, physical, physiological differences, type of hearing loss and onset). Creswell (2009) discussed the effects of threats to validity, which could include varying experiences of the respondents that would essentially threaten the outcome of the overall research. Due to the differences in a participant's maturation, personal history, or individual characteristics, it could be beneficial for the researcher to respond or adapt to the study as necessary. By adjusting the study accordingly and taking into account the participants differing qualities the overall probability of data would be more equal amongst the populations. This would allow for a better understanding as to which parameters are related to feelings of isolation and disconnectedness.

Finally, the 78.9% loss of data is a significant limitation for this study. This limitation could be attributed to response bias. Creswell (2009) explains that the final results of study would have substantially changed if the unanswered responses had been completed and included in the final study results. The inclusion of this missing data may have potentially given extremely different results of the overall study. The missing data would have further increased the overall information and therefore knowledge of the research, thereby enhancing clinicians' and the general populations' knowledge of how

perceived isolation and social disconnectedness could affect others in a meaningful way. Regardless of the limitations, the findings from this study were strong enough to determine the differences amongst the age and hearing status of the participants. Overall, the results of this study may still be widely applicable in assisting with future research and patient-specific treatments.

Recommendations

I suggest the following recommendations as a result of this study:

- Clinicians who work with the hard of hearing/deaf or hearing populations should become more familiar with the signs and effects of social disconnectedness and perceived isolation as well as understand how hearing loss may be a contributing factor to these feelings and how they might help to decrease the negative effects associated with these feelings.
- Society as a whole could better identify and understand characteristics of social disconnectedness and perceived isolation in individuals, especially those who may be more prone to these feelings. The benefits from this study include new knowledge on how individuals experience these feelings. This information could potentially assist in facilitating the necessary means to understand as well as alleviate these negative feelings by educating others while encouraging future studies.
- Overall, this study provides valuable information to promote understanding and education and encourage proactivity to help those who may deal with these negative feelings. The hope is that further research will refine the data

and thereby clinicians and future researchers will gain a better understanding of all factors associated with social disconnectedness and perceived isolation with hard of hearing/deaf individuals.

- The statistical data comparing the women 18 to 49, 18 and older, and 50 and older in both the hard of hearing/deaf and hearing groups suggest that there is in fact a difference between the age groups as well as that hearing loss may be a contributing factor for the younger group. For the older group, the results may be due to factors such as a decline in health, loss of their significant other or other family members, or living alone or in a community. Therefore, adjusting the collection criteria to focus on the younger population would be recommended for future research. Another recommendation would be to have a larger sample size as well as including other individual characteristics to determine what the major contributing factors are in dealing with social disconnectedness and perceived isolation. A longitudinal study in all of these aspects with the inclusion of men would be a beneficial addition to the current research.

Implication for Social Change

Both perceived isolation and social disconnectedness matter with respect to physical and mental health; regardless if these feelings are from the person's perceived lack of social support or prompted by feelings of loneliness (Cornwell & Waite, 2009). With respect to an individual's mental health, the relationship amongst social disconnectedness seems to function through a strong relationship between mental health

and perceived isolation. This is why it is extremely important that clinicians have a strong understanding of social disconnectedness and perceived isolation and the effects that they have on an individual's mental and physical well-being.

Furthermore, clinicians should be more knowledgeable on how hearing loss could possibly be a factor in a person's mental health status. However, an individual's age, lack of companionship, and personal history are other possible characteristics that could potentially affect the person's mental and physical health. It is important to note that based on the findings of this study, the hard of hearing/deaf women may not be as fragile as previous research has implicated, but rather they are more resilient than hearing women.

Therefore, the results from this study are important when attempting to implement positive social change because it will better inform clinicians so that proper coping strategies can be determined and provided to clients. Additionally, the results from this study can be added to past studies as well as encourage more in depth future studies. This research is not only significant for social change but has a multidimensional purpose to what is currently implied, known, and utilized when working with individuals who are both hard of hearing/deaf and hearing.

Conclusion

In conclusion, perceived isolation and social disconnectedness are more likely to be seen amongst older adults (Cornwell & Waite, 2009). These two forms of isolation have distinctive and separate relations with an individual's health both physically and mentally. Cornwell and Waite (2009) further stated that older adults may fare better in

regards to their mental and physical health when they are able to modify their expectations and endure socially isolating circumstances. Following the results of this study, the same may hold true for younger populations of the hard of hearing/deaf. It is important to understand how those individuals with or without hearing loss and older adults are able to adapt to various changes in their lives, and how environmental, physiological, and psychological factors may affect a person's companionship and social connectedness. My hope is that this research will offer valuable information for future generations of researchers and health care providers.

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Appendix A: Research Flier

Participants Invited For A Research Study

A Comparison of Social Disconnectedness and Perceived Isolation in Deaf/Hard of Hearing Women and Hearing Women.

Researcher: Mellissa Perry, Doctoral Student, Walden University

Chairperson: Dr. Michael Plasay

Requirements

Looking for women who are 18 years of age and up, who are hearing and/or identify as hard of hearing/deaf, may or may not know sign language, but not identify as a part of the Deaf community, and can read and understand English in order to fill out an online survey.

Survey Information

The survey consists of 17 questions and would take approximately 10 – 20 minutes.

Confidentiality

The survey is for a student doctoral research and will not collect any identifying information such as name, phone number, address, etc.

Purpose of Study

To determine if there is a difference in feelings of isolation or loneliness and lack of communication or connection with others in women with hearing loss and women with no hearing loss.

If interested please go to the link provided:

<http://www.questionpro.com/t/AMO2EZU5Cy>

Appendix B: Permission to Use Scales

Original E-mail

From : Erin York Cornwell
Date : 04/22/2012 12:58 PM
To : Mellissa Nieto
Subject : RE: Permissions

Hi Melissa,

Thanks so much for your interest in my research.

I'm attaching a document that provides more details on each of the indicators of isolation that are included in the two scales. Also, I'm attaching a second paper that uses the isolation scales (in addition to the piece that you referenced in *Journals of Gerontology*). In this paper, we explore the associations between the two forms of isolation and physical and mental health. This should give you a lot more information.

And, if you want to analyze the data collected by NSHAP, you can access it through ICPSR here:

<http://www.icpsr.umich.edu/icpsrweb/NACDA/studies/20541>

(I believe that NSHAP includes a self-reported question on hearing, which would enable you to look at how social isolation varies according to that measure. This might be helpful for comparison with your study.)

Your work sounds fascinating – good luck!

Best,
Erin

Erin York Cornwell
Assistant Professor of Sociology
Cornell University