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Christy Linn Pettis

University of Arkansas, Little Rock

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Individuals with Hearing Loss in Arkansas and Mental Health Service: Evaluating Accessibility

INTRODUCTION

The combination of mental health issues and hearing loss creates a unique relationship that requires specialized training for the professionals working with deaf or hard of hearing individuals in a clinical setting. A review of the literature reveals various aspects of the unique dynamics created by hearing loss and mental health concerns with respect to communication in a clinical setting as well as in a rural state. However, there is limited literature respective to the state of Arkansas. The survey conducted for this article assessed the accessibility to mental health services in the state of Arkansas as perceived by deaf and hard of hearing individuals. It revealed the need for qualified professionals to provide services geared towards deaf culture. Interviews provided insight to experiences in the context of mental health services and accessibility. The survey also showed strong demand for a centrally located office to provide services to the deaf and hard of hearing community. The aim of this research is to draw the attention of mental health professionals and other stakeholders in Arkansas to the additional element of hearing loss. The impetus for not only mental health services tailored for issues arising out of an individual's hearing loss, but also the need for mental health providers to make available clinicians who have a profound understanding of the language and the culture of the deaf community.

Degrees and Prevalence of Hearing Loss

The deaf population is a subpopulation that exists within the hearing population that includes individuals who have a hearing loss within a spectrum that varies from mild hearing loss to total hearing loss. It is important to differentiate lower case "d" deaf and uppercase "D" Deaf. Steven Barnett explains that Deaf, as in Deaf Community refers to the subculture in which members are self-selected, whereas deaf, as in deaf population, refers to individuals who have a medically diagnosed hearing loss.¹ Hearing loss, hard of hearing, and deafness are synonymous as they refer to an individual who has impairment to his or her ability to process the environment around them auditorily. The level of correction needed to bring the auditory input to a detectable range by the individual determines the degree of hearing loss. This is measured in decibels of hearing loss (dB HL). Clark provided a breakdown in the classifications of hearing loss. The classifications on a spectrum of hearing loss in terms of dB HL are as follows: 16 to 25 as slight, 26 to 40 as mild, 41 to 55 as moderate, 56 to 70 as moderately severe, 71 to 90 as severe, and anything over 91 as profound.²

Ross E. Mitchell and his co-authors provided a brief description of the estimates regarding the total number of deaf people in America using information from the National Health Interview Survey (NHIS) and the Survey of Income and Program Participations (SIPP). They reported approximately 2 to 4 per 1000 of the total population has profound hearing loss, 9 to 22 severely hearing impaired, and 37 to 140 with hearing loss in general.³ According to the Census Bureau, in 2010 there were 2,915,918 people living in Arkansas at the time of the census report.⁴ Given the population data of Arkansas residents reported in the census and the approximation of the ratio of the population with a hearing loss, it would be logical to assume there are roughly estimated to be anywhere from 583 to 11,664 individuals with profound hearing loss living in

Arkansas, 26,243 to 64,150 severely hearing impaired, and 107,888 to 408,229 with hearing loss in general.

Hearing Loss and Mental Health Issues

Margaret Du Feu and Kenneth Fergusson conducted a study in 2003 to better understand the relationship between hearing loss and mental health. What Du Feu and Fergusson found was the stigma attached to hearing loss had social implications. Alongside the loss [or lack of] sensory ability, the social implications had an equal impact on the deaf population's mental health. They acknowledged the age of onset as well as the speed of onset had different levels of impact. They found early onset, which includes acquired deafness via illness/injury and ascribed deafness, had a deep impact on children's social development and mental health in childhood as well as adulthood. They also found the sudden loss resulting from injury or illness had the most devastating consequences if psychological support was not provided. In their report, they acknowledged that hearing loss is a byproduct of aging; however the growing effect on a person's confidence and independence as a result of decline of the ability to communicate cannot be ignored.⁵

Seeking out mental health services can be an apprehension-filled task for those with a hearing loss. The uneasiness can be attributed to the fact that hearing loss beyond a mental disorder or simply a physiological pathology is still a relatively new concept. Clear communication is crucial to proper diagnosis and effective treatment. Historically, deaf individuals seeking mental health services have been misdiagnosed or not diagnosed at all due to miscommunication. Du Feu and Fergusson explained that mental health workers' lack of understanding deafness and the associated culture has led to patient institutionalization as a result of poor writing skills or/and lack of communication. They reported the prevalence of

mental health disorders within the deaf community can be attributed to the “delays in access to [mental health] service...increase[s] the duration of mental health problems.”⁵

Hearing Loss and Suicide

The general consensus on the relationship between depression and suicide for individuals with a mental health condition, especially depression, is further supported by Ian Gotlib and Constance Hammen’s research, which reported that twenty percent of the population that has been diagnosed with depression commit suicide.⁶ There is limited data on the exact prevalence of depression among individuals with hearing loss in the United States, much less Arkansas. However, studies conducted by Richard Hallam and his cohorts in Britain indicated the prevalence of depressive symptoms among individuals with a hearing loss to be significantly higher than the general population.⁷

There is a lack of suicide data specific to the deaf population in Arkansas; however the Arkansas Life Expectancy website used data from the Center of Disease Control, National Institute of Health, and individual state/county databases to report suicide rates for the general population of Arkansas. According to the website, there are 14.51 suicides per 100,000 deaths.⁸ When the ratio is applied to the estimated deaf population in Arkansas, the projected number of suicide among individuals with a hearing loss is sixteen to sixty.

Oliver Turner and his co-authors’ review of the literature focusing on suicide in the deaf community reported an expected national rate of eleven per one hundred thousand (.00011).⁹ A projected number of twelve to forty-five suicides based on that calculation provided further support of proximity of previous projection when applied to the estimated deaf population in Arkansas.

Furthermore, Turner et al.'s analysis of the literature found it was not having the hearing loss per se that was a high risk factor, but the stigma resulting from having hearing loss that causes low levels of social support as well as interpersonal relationships. They also reported individuals with hearing parents were more likely than their counterparts to suffer from depressive symptoms with the difference being statistically significant. They emphasized higher rates of depression and perceived risk for the deaf population than their hearing counterparts.

Given the risk of suicide for individuals who are facing a dual diagnosis of depression and hearing loss, there is an immediate need for mental health services tailored to the communication and cultural needs of this population.

Communication in Clinical Settings

With two individuals who do not speak the same language - as in the case of a clinician who speaks English and a client who has a hearing loss - the first thing that typically takes place is dialoging through writing. This presents a conflict of cognitive mapping with respect to language. What this means is what is said by one is not perceived as it was intended by the speaker.

Helen Meador and Philip Zazove provide an example in their article addressing clinical issues that exist when working with individuals with a hearing loss. The conversation hypothetically takes place via writing in English; Physician writes "you may need surgery," but the deaf client perceives the physician to be saying, "you need surgery in May." To further clarify how a linguistic commonality such as communicating through an interpreter can prevent misunderstandings, the authors explain how the physician's statement would be signed "you maybe need surgery."¹⁰

Even with interpretation services, there still arise issues from using interpreters for facilitating communication between deaf individuals and the hearing practitioners. Traditionally, deaf individuals use an interpreter who has been certified as a sign language interpreter by a state licensing board, such as Arkansas Registry of Interpreters for the Deaf (ARID) or Registry of Interpreters for the Deaf (RID). The certified interpreter is bound by an established set of code of ethics and professional conduct expectations set forth by the ARID or RID. When sensitive information is passed between client and clinician, not only is full comprehension on the clinician's part about deafness and deaf culture crucial, but also the client's sense of security of confidentiality on the interpreter's part. As if these were not enough factors needed for successful treatment, the lack of willingness of service providers to provide interpreters leads individuals in this population to be forced to bring friends or family members who not only lack training in sign language interpretation, but also lack the code of ethics that strictly binds certified interpreters. These are major concerns within the deaf community when an individual desires to seek out or actually seeks out mental health services that are entirely caused by the linguistic and cultural differences between deaf and hearing individuals.

A survey research study conducted by Annie Steinberg et al. assessing mental health services from a deaf consumer's perspective supported the above concerns.¹¹ The results of the survey showed a deficit in the comprehension of mental health terms such as "psychosis." Most of the respondents' comprehension of mental health terminology was limited by their access to information from friends, family, school, work, and reading. The research showed nine percent attributed mental health problems to the deafness and forty-one percent attributed them to "communication problems, family stresses, and societal prejudice that accompanies [deafness]." Their research further revealed these external factors to be causation for various self-destructive

behaviors such as suicidal thoughts resulting from depression, “substance abuse, and other violent behaviors.”

Steinberg and her co-authors stated that difficulty in the area of communication was a prevalent complaint among the respondents. The study revealed communication issues stemmed from a lack of communication with other individuals during childhood as a result of not being able to speak and/or hear or isolation due to external factors, such as isolation at the hands of parents. They explained that deaf consumers were aware of benefits of having an interpreter versus having a clinician who is fluent in sign language. They further emphasized the need for clinicians to understand not only the language barriers but also the cultural barriers. The deaf community does not exist as a homogenous group outside of the fact they are deaf. There is diversity within the deaf community as with any other culture. Accessing mental health services for the deaf was reported to be futile by over one half of the respondents. They also emphasized the significance of mental health providers becoming conscious of their bias regarding the deaf community.

Mental Health Services in Rural Areas

Health services in rural areas are typically limited to, when even in existence, general practitioners at a clinic. Arkansas is a rural state, according to Frank Farmer and Wayne Miller, with eighty-four percent of the counties being classified as rural.¹² Denise M. Lishner and others explain there is not much data regarding deaf people and their access to health care, including mental health care.¹³ Furthermore, studies conducted by Cheryl Runyan and Geraldine Faria, as well by as Santos et al. provided further support for the need for community care centers where these individuals can obtain coordinated and implemented treatment plans and services for mental health services tailored to the deaf community supports.¹⁴

The Study

After a review of scholarly articles regarding mental health services in the state of Arkansas respective to deaf or hard of hearing individuals, there appears to be limited research on this subject matter. This research project, with the usage of a cross sectional survey, was designed to measure access to mental health services in the state of Arkansas respective to issues associated with a hearing loss. Based on the estimated number of deaf individuals living in the state, the above literature review that suggests the implications, and the limited respective data available regarding hearing loss and mental health services in Arkansas, it is understood that this is a seriously under-researched area in the social sciences field.

Hypothesis

It was hypothesized that individuals in Arkansas who identify themselves with a hearing loss experienced barriers when obtaining mental health services and be denied or refused mental health treatment.

It was also further hypothesized individuals in Arkansas who identify themselves with a hearing loss will agree on the following items:

1. Mental health programs do not provide services that are sensitive to deaf culture.
2. Insurance or funding for mental health services is not adequate or available.
3. Mental health programs are not are sensitive to deaf culture.
4. The number of providers who specialize in both mental health and hearing loss is not sufficient.
5. Mental health providers are not willing to pay for interpreters.
6. There exists a fear of other's perceptions when seeking mental health services.
7. Stigma inhibits seeking mental health services by individuals with a hearing loss.

8. There exists a concern for confidentiality in a clinical setting with an interpreter.
9. Individuals with a hearing loss lack of awareness of what constitutes a mental health problem.
10. The number of qualified interpreters available in their respective areas is insufficient.
11. There is a perceived need for a centrally located office to meet the mental health needs of deaf and hard of hearing individuals.

METHOD

Participants

The criterion for filling out the survey was Arkansas residency and identify as deaf or hard of hearing. Seventy-four deaf or individuals with a hearing loss participated in the survey. There was an even distribution between male and female respondents (37 males, 37 females). Most of the respondents (81.1%) identified themselves as deaf while the remaining identified as hard of hearing. Most of the respondents (86.5%) identified themselves as Caucasian, eight identified as African American, and two identified as Hispanic. While four of the respondents did not indicate their residency, most of the respondents (71.4%) reported residing in the region of central Arkansas and 22.9% reported residing in the Ozarks region. While only one person did not indicate their age group, the majority of the respondents were over the age of forty (62.2%) with the remainder evenly distributed between those who were between the age of eighteen to thirty and thirty-one to forty. Nineteen of the respondents indicated an interest in a follow up interview, yet only three of them actually completed the interview. (*Table 1, Appendix A*)

Materials

The survey used was selected because it was posited to the researcher by the president of the Arkansas Association of the Deaf, Holly Ketchum, as the desired method of data collection. It was designed by a panel led by Holly Ketchum. After initial assessment of the survey, the researcher made modifications to the wording to facilitate ease in completion by the respondents as well as increase validity, which was approved by the panel. The questions, while may appear similar to standard questions in similar general surveys, are unique to the issues to the population with a hearing loss in the state of Arkansas. The Internal Review Board of the University of Arkansas at Little Rock, creating the opportunity to conduct this grassroots research, approved the survey questions along with consent forms.

The cross sectional survey was designed to measure accessibility as perceived by the population with a hearing loss consisted of nineteen items. The first fourteen questions, which were presented with a Likert scale, were regarding various issues the deaf community has faced respective to mental health services and accessibility. The next five closed ended questions were regarding the respondent's demographics. The last question was open ended for indication of city of residence. (*See Appendix B*)

Procedure

The respondents were self-selected from a convenient sample pool located at various events in Little Rock (central Arkansas) and Fayetteville (northwest Arkansas) where there were an aggregate of deaf and hard of hearing individuals. These events include the annual Arkansas Association for the Deaf Conference, Ms. Deaf Arkansas, a Football game at Arkansas School for the Deaf, and a camping retreat. Respondents were recruited at various events where there was an aggregate of deaf and hard of hearing individuals. Respondents were approached and were given the option of filling out the survey at the time given or returning the survey by mail.

The time for completion of survey averaged fifteen minutes due to the nature of the survey not being in their native language, as American Sign Language (ASL) does not have a written form. In situations where there were deaf or hard of hearing individuals who had a dual disability, specifically a vision impairment, the usage of service support provider (SSP) was implemented at the request of the respondent. SSPs are personal sign language interpreters who have been hired to assist these deaf-blind individuals with communication as well as mobility when attending social functions, meetings, etc. The SSP signed the survey as written to the deaf-blind individual then the respondent indicated their responses, which in turn the SSP made the necessary marks on the survey paper.

After implementation of the survey, respondents were offered an opportunity to further participate in the study by providing a narrative of their or any known previous experiences. The communication took place in the form of email exchange between the respondent and the researcher.

Quantitative results from the survey were recorded and analyzed using IBM SPSS Statistics 20 software. In order to reduce the likelihood of central tendency bias, the Likert scale results of strongly agree and agree were combined as well as that for disagree and strongly agree. The qualitative results were collected during an in-depth interview. The interview was a single open-ended question asking the respondents to describe a personal or known experience(s) with accessibility to mental health services in the state of Arkansas.

RESULTS

The results revealed an overall agreement among the respondents. A small number of the perceptions were mediated by the degree of hearing loss. Tables 2 – 14 provide a breakdown of the results by degree of hearing loss. (*See Appendix C*)

When respondents were asked if they or someone they knew had experienced barriers when seeking mental health services, more respondents (64.9%) reported not having had or knew someone who had experienced barriers. The percentage of respondents who reported experiencing barriers did not differ by degree of hearing loss, $X^2(1, N = 74) = 0.45, p = .50$.

When respondents were asked if they or someone they knew had been denied or refused mental health treatment, more respondents (51.4%) reported having had or knew someone who had been denied or refused treatment. The percentage of respondents who reported denial or refusal of treatment did not differ by degree of hearing loss, $X^2(1, N = 74) = 0.50, p = .48$.

When respondents were asked if their state or local office of mental health provides appropriate services for persons with a hearing loss, more of respondents (66.2%) agreed their state or local office of mental health does not provide appropriate services. The percentage of respondents who agreed differed by degree of hearing loss, $X^2(2, N = 74) = 15.13, p < .001$.

When respondents were asked if they perceived the state of Arkansas to lack the funds or insurance to provide mental health services, a greater number of respondents (63.5%) agreed the state of Arkansas lacks the funds. The percentage of respondents who agreed did not differ by degree of hearing loss, $X^2(2, N = 74) = 5.76, p = .06$.

When respondents were asked if they perceived mental health programs to be sensitive to deaf culture, a greater number of respondents (77%) agreed to the lack of sensitivity. The percentage of respondents who agreed did not differ by degree of hearing loss, $X^2(2, N = 74) = .97, p = .62$.

When respondents were asked if there were enough providers who specialized in both hearing loss and mental health, a greater number of respondents (83.8%) agreed there were not

enough providers. The percentage of respondents who agreed did not differ by degree of hearing loss, $X^2(2, N = 74) = .24, p = .88$.

When respondents were asked if mental health providers were willing to pay for interpreters, almost half the respondents (48.6%) agreed mental health providers were willing. The percentage of respondents who agreed did not differ by hearing loss, $X^2(2, N = 74) = .50, p = .78$.

When respondents were asked if they perceived deaf or hard of hearing individuals to be afraid their families and friends would think less of them for seeking mental health services, more respondents (59.5%) agreed individuals with a hearing loss were afraid. A t-test indicated a statistical difference between the mean numbers of deaf respondents who agreed. The percentage of respondents who agreed differed by degree of hearing loss, $X^2(2, N = 74) = 7.70, p < .05$.

When respondents were asked if the way other people look down on individuals who obtaining mental health services prevents deaf or hard of hearing individuals from seeking mental health services, more respondents (60.8%) agreed stigma prevents deaf or hard of hearing individuals from seeking mental health services. The percentage of respondents who agreed did not differ by degree of hearing loss, $X^2(3, N = 74) = 2.93, p = .40$.

When respondents were asked if there was a fear of confidentiality on the part of interpreters, more respondents (63.5%) agreed there was fear of confidentiality. The percentage of respondents who agreed did not differ by degree of hearing loss, $X^2(2, N = 74) = 1.07, p = .59$.

When respondents were asked if deaf or hard of hearing individuals were aware of what it means to have a mental health problem, a greater number of respondents (74.3%) agreed there

was a lack of awareness. The percentage of respondents who agreed did not differ by degree of hearing loss, $X^2 (2, N = 74) = .19, p = .91$.

When respondents were asked if there were enough qualified interpreters available in their respective area of the state of Arkansas, more respondents who were deaf (62.2%) agreed there were not enough qualified interpreters. The percentage of respondents who agreed did not differ by degree of hearing loss, $X^2 (2, N = 74) = .23, p = .89$.

When respondents were asked if they felt there was a need for a centrally located office to meet the mental health needs of deaf and hard of hearing individuals in the state of Arkansas, an overwhelming number of respondents (94.6%) agreed there was a need for a centrally located office. The percentage of respondents who agreed did not differ by degree of hearing loss, $X^2 (2, N = 74) = 4.84, p = .09$.

Further Analysis

Due to the facts that individuals who are deaf are more likely to require sign language interpretation in a clinical setting as compared to hard of hearing individuals, and the greater number of respondents identified themselves as being deaf (81.1%), and the respondents agreeing more or less on multiple issues regardless of hearing loss, it was decided to be in the best interest of the study to narrow the results further within the deaf respondents.

Sixty-seven percent reported they had not experienced barriers while obtaining mental health services in Arkansas. Fifty-three percent reported they had not experienced or knew someone who had been denied or refused treatment. Seventy-five percent agreed there were no appropriate services for individuals with a hearing loss being provided by the state or local office of mental health. Seventy percent agreed there is a lack of insurance or other funding for mental health services in Arkansas. Seventy-eight percent agreed services that are sensitive to deaf

culture are not provided. Eighty-three percent agreed there are not enough providers who specialize in both mental health and deafness or hearing loss. Forty-seven percent agreed mental health providers are willing to pay for interpreters. Sixty-seven percent agreed individuals with hearing loss are afraid their friends and family will think less of them for seeking mental health services. Sixty-five percent agreed stigma prevents individuals with hearing loss from requesting services. Sixty-five percent agreed there is a fear of lack of confidentiality with interpreters. Seventy-five percent agreed there was a lack of awareness of what constitutes a mental health problem. Sixty-three percent agreed there were not enough qualified interpreters in their respective area of the state. Ninety-seven percent agreed there was a need for a centrally located office to meet the mental health needs of individuals with hearing loss.

Interviews

The interviewees consisted of three respondents who were respectively in their thirties, forties, and fifties. They identified themselves not only as deaf and a resident of Arkansas, but also as an individual who wanted to narrate an experience with mental health services in the state of Arkansas. Two respondents reported they were residents of Central Arkansas and one of the Ozarks, which was also indicated to be where the two highest numbers of respondents were originating, seventy-one percent and twenty-two percent, respectively. Identifiers such as names, ages, and exact locales will not be revealed in order to protect the confidentiality of the interviewees and given the nature of the density of the deaf community.

The first interviewee's perceptions support statements regarding issues with mental health service providers who lacks competency in both areas of mental health issues and deaf culture. The overall impression given by the interviewee is frustration with the mental health provider not understanding mental health issues in the light of deaf culture.

I only managed to have few sessions with a psychiatrist with an interpreter. But I didn't feel comfortable with the psychiatrist because it didn't seem that he understood me. maybe it was some kind of misinterpret on the interpreter's side, I don't know. but all I know is that I don't feel connection with the person because he was not understanding ME. Also, he never could understand the culture here in [locale omitted]. He never interacts or experienced with the deaf world, therefore he cannot understand the frustration I have to deal with. I used to have a sign language counselor which was best I have ever had. she was aware of the community and the struggles. He doesn't have the resources of support for any kind. therefore he cannot make any kind of suggestion in what and where to go. He can easily make lists of places and suggestions if I was hearing, there are plenty of options. Honestly, I don't have any problems with the interpreter being there to help us with communication. but I do have a problem with the person not UNDERSTANDING our culture. All I Know is that whenever I tried to look for some kind of assistance it is always a frustration because nobody seems to understand. experiences and understanding seems to be the biggest issue.

The second interviewee discusses accessibility in a retirement center where there are a number of deaf senior citizens as well as individuals who are now using hearing aids due to loss of hearing as a result of aging. While the deaf community is typically isolated from the hearing community, whether by choice or circumstance, the isolation is further compounded when they enter residential clinical settings such as nursing homes. This type of situation necessitates effective communication with other residents, as well as the staff, to ensure the quality of life of the deaf resident. The interviewee also explains the need for visual aids; not only a necessity for the deaf residents, but also the residents who suffer from late onset hearing loss.

I [would] appreciate to have either professional or non-professional interpreters to [use] sign language to us deaf seniors and to speak to hearing seniors likewise for any emergency, business or social purposes"...I noticed that some of the hearing seniors wore hearing aids or cannot hear well. So they need some kind of visual aids such as TV [with] closed captioned ... telephone with amplifier, fire alarms with strobe flashing light...and doorbell flashing light.

The third interview provides an in-depth look at one individual's experience over a life time dealing with a specific family member who was suffering from a diagnosed mental health disorder, schizophrenia, which had serious implications on the family life, social life, and

resulted in a suicide of that family member. It also provides glimpse into the experiences of the family as a whole at the hands of the family member and the isolation he experienced.

We had to live in fear of him because of his abusive behavior towards all of us. He tried to murder us with his loaded pistol but he changed his mind over and over. We were constantly on alert even when he was not around and he was in our minds most of the times. The law enforcement and courts were involved and yet he continued to abuse and violate our peacefulness. He finally got divorced and lost custody of his kids. He married another and exhibited his abusive ways towards his second family. He finally went to see a psychologist which he took some medicines which helped him a little. However, it got worse if he did not comply the psychologist's orders. He spiraled down faster after second divorce. The deaf community could not help him 100 percent because of ignorance and fear as he disrupted many lives of the Deaf people. He had many bad countless experiences [when he was in jail]...[including being] sodomized by the inmates who were hearing and got angry toward him because [of his crime]. One day he committed a horrible act and was administered at the hospital by police and he got out next day. I wonder if the hospital could not deal with him because of communication barriers or ASL interpreter fees. He was in and out of the hospital many times and he attempted suicide by overdose. He was in and out of the Deaf community. I sheltered my children from him because I did not want my children experiencing like I did while I was a child and an adult. He died...and found peace with himself. However, he died alone in an apartment. Nobody was close to him to assist or realize that he died. He suffered a lot and we suffered, too. I wonder if there was a mental health center for the Deaf that specializes for Deafies only and he might do better and get proper guidance from professionals who know about being Deaf and American Sign Language. I know that it did not happened to him. Hopefully it could help others to realize about our dilemma and needs for Deaf mental health services in Arkansas badly which I know there are several Deafies [who] are in need of that kind of help.

Discussion

Although the analysis of the items beyond one and two of the survey data is in contradiction with the outcomes of items one and two, fear of self-disclosure and stigmatization could explain the respondents' answers to the first two questions regarding barriers and denial/refusal of treatment. When the respondents were asked if they themselves or someone they know had experienced barriers or discrimination when seeking mental health services, the majority of them did not report any such experiences. This failed to support the hypothesis that

respondents who were deaf would be more likely to report having experienced such barriers or discrimination based on the fact of known language barriers and complications that can arise in the face of a crisis while waiting for the interpreter.

Mental health offices typically provide services that range from individual counseling to group therapy. These services typically take place in a setting consisting of the deaf or hard of hearing client and hearing professionals; and in the case of group therapy, a group of hearing individuals. These settings, especially the group setting, can prove to be problematic in the face of language and communication barriers. Consider the side comments individuals make that typically are missed and jokes that are missed, further isolating the deaf or hard of hearing client. Isolating the deaf or hard of hearing client in a clinical setting can impede the ongoing treatment. The respondents agreed, supporting the hypothesis that state or local office of mental health does not provide appropriate services for persons with a hearing loss.

Lack of insurance, while a common problem regardless of one's physical or mental condition, prevents many deaf and hard of hearing from seeking mental health services. This question was interpreted by most respondents, as indicated by the questions asked when reading the questions, as funding or insurance coverage for services tailored towards deaf or hard of hearing individuals. These services may include, but are not limited to, separate therapy groups consisting of other deaf individuals. An example would be support groups for deaf parents of hearing children diagnosed with ADHD or any of the various substance abuse groups. Another would be a support group for deaf parents with hearing children to assist with dealing with the dynamics of being a member of a family with mixed language. It is the perception of the deaf community that mental health providers lack the funding to operate a separate group outside of

the ones already existing. The respondents agreed, supporting the hypothesis the state of Arkansas lacks the funding or insurance to provide mental health services.

Mental health programs consist of a wide range of services that deal with sexual identity, ethnic identity, or physical identity, but very few provide services that deal with issues that arise within the deaf culture as a result of hearing loss. It is also important to consider what is considered to be norm in the deaf culture may be considered to be against the norms of the mainstream society. This puts the deaf community at odds not with only the hearing community but with professionals as well. The majority of respondents who were deaf agreed, supporting the hypothesis that mental health programs in the state of Arkansas do not provide services that are sensitive to deaf culture.

Barring extensive experiences with deaf culture prior or during higher-level academia, further training in deaf culture is necessary for an efficient treatment programs. This is because of the dynamics of the deaf culture within itself and in relation to the hearing community deviates from the dynamics within the hearing culture in relation to itself. Specialization in mental health issues in the context of deaf culture will better equip professionals to provide the best treatment that should be available to deaf or hard of hearing individuals. These professionals are not easy to come by. The respondents agreed, support the hypothesis that there are not enough providers who specialize in both mental health and hearing loss.

Since the passage of Americans with Disabilities Act, it has become illegal for mental health providers to refuse to provide an interpreter at the request of the client. In light of this, mental health service providers do provide interpretative services at the request of the client. In some cases, even with the best intentions, where deaf or hard of hearing individuals are discouraged from requesting an interpreter on account their speaking/lip reading abilities or even

simply the delay in the provision of an interpreter can be perceived as the lack of willingness of the provider to pay for interpreters. Most of the respondents agreed however, that such providers are willing to pay for interpreters which did not support the hypothesis that mental health service providers are willing to pay for interpreters.

Stigma typically associated with individuals obtaining mental health services causes individuals to be wary of seeking mental health services and for some prevents them from seeking mental health services. The respondents agreed, supporting the hypothesis that deaf and hard of hearing individuals are afraid of stigma and that it prevents deaf and hard of hearing individuals from seeking mental health services. This stigma can be greatly intensified by the density of the deaf community.

The dynamics of the relationship between a client and mental health provider can be mediated by the presence of an interpreter. Interpreters are typically heavily involved in the deaf community from the beginning of their interpreter program, and many are accepted as part of the deaf community. In light of that, there is a good chance the interpreter knows the client outside of the clinical setting. While bound to strict confidentiality and code of ethics, there is still a lingering fear of the cat getting out of the bag. The respondents agreed, supporting the hypothesis there is fear of lack of confidentiality.

Being aware of mental health issues leads to better discourse and understanding of individuals who suffer from such issues. When a community obtains a certain level of discourse, especially in small close knit communities such as the deaf community, it can better meet the social needs of its members. The respondents agreed, supporting the hypothesis that deaf or hard of hearing individuals are not aware of what constitutes a mental health problem.

Interpreters have to pass a battery of tests to obtain their qualifications to interpret in a clinical setting. Interpreting in medical/clinical settings as well as legal settings requires specialized training beyond the general interpreting program. There are a limited number of nationally certified interpreters in the state of Arkansas and they typically reside within driving range of Central Arkansas. The case here seems to be an issue of distribution of qualified interpreters as opposed to the qualifications of the interpreters themselves. The respondents agreed, supporting the hypothesis that there are not enough qualified interpreters available in their respective areas.

Having an office that is centrally located to provide services that range from inpatient to outpatient and from individual to group therapy geared towards individuals with hearing loss and their respective culture would greatly enhance the quality of life of the deaf individuals in the local communities. The respondents agreed, supporting the hypothesis that there is a need for such office.

In light of the prior literature review and the respondents' responses, it is clear there is a strong need for a centrally located office in Arkansas which provides mental health services tailored to the needs of the deaf community. Ideally the office would have staff members who are fluent in sign language and mental health professionals/social workers who not only are fluent in sign language but also have background in deaf community. There is a need to raise discourse among the hearing professionals regarding the social and psychological implications of hearing loss as well as deaf culture. There is also the similar need to create discourse about what mental health services consists of among the deaf community members.

Because this was not a financially funded research, the researcher was limited in data collection to the various events where there was an aggregate of deaf and hard of hearing

individuals. This limitation led to biased results because the individuals who were at the functions and do not represent those individuals who are living in remote areas where there is not a significant number of deaf people living to constitute a local deaf community. As the results showed, the majority of those individuals lived in either Central Arkansas or Ozarks, specifically around Fayetteville. On top of being limited to the events, data collection was also limited to those respondents who were willing to fill out the survey. Countless surveys were taken with verbal promises to mail it in, yet few were actually mailed. The deaf community, being a highly social body, attends events mainly for the purpose of socialization as well as the event itself. This furthered the bias in such a way that the respondents had to be willing to stop socializing and participate in the study. In the event of future research, it is proposed that workshops be conducted at each of the regional locales of Arkansas; Ozarks, Central Arkansas, Ouachitas, River Valley, Delta, and the Timberlands. It is further proposed that these workshops not only be designed for administration of the survey but also to educate the local deaf individuals about mental health terminology and perhaps have a guest speaker(s) come to speak about various areas of mental health services beyond the traditional understanding of the "crazies."

While the survey appeared to have face validity, the question of whether it measured what it was designed to measure was limited to comprehension of the survey items. It was not until it was administered that the researcher encountered issues due to the nature of differential language cognitive mapping between the researcher and respondents; furthermore, the need for the survey in an alternative format such as Braille for the deaf-blind. Great care was taken to ensure understanding of the consent form, which was attached to the survey materials; while less was given to interpretations of the survey items. The reason for less care in interpretations was the need to preserve the validity of the survey through consistency. As a result, there was not

much room for modification of the survey. Most of the issues were related to lack of vocabulary or comprehension of the survey in English, which is not the native language of the respondents. It is proposed the next time this area is researched, consider having the survey signed in the native language of the future respondents. This could be accomplished by having a team of interpreters who are certified and trained to administer the survey in a consistent manner.

Appendix A

Table 1
Demographics of the Respondents

	<u>Deaf (n=60)</u>	<u>Hard of Hearing (n=14)</u>
<u>Sex:</u>		
Male	28	9
Female	32	5
<u>Race:</u>		
African American	7	1
Hispanic	1	1
Caucasian	52	12
<u>Age:</u>		
18-30	9	5
31-40	9	4
41-50	16	1
51+	26	3
<u>Residence:</u>		
Central	44	6
Delta	1	0
Ouachitas	1	0
Ozarks	10	6
River Valley	1	0
Timberlands	1	3
<u>Requested Survey:</u>		
Yes	19	0

9. The way other people look down on individuals getting mental health services prevents deaf or hard of hearing persons from requesting services.

STRONGLY AGREE AGREE NEUTRAL DISAGREE STRONGLY DISAGREE

11. There is a fear of lack of confidentiality (for example, interpreters knowing private information).

STRONGLY AGREE AGREE NEUTRAL DISAGREE STRONGLY DISAGREE

12. People who are Deaf or hard of hearing are not aware of what it means to have a mental health problem.

STRONGLY AGREE AGREE NEUTRAL DISAGREE STRONGLY DISAGREE

13. There are not enough qualified interpreters available in my area of the state.

STRONGLY AGREE AGREE NEUTRAL DISAGREE STRONGLY DISAGREE

14. I feel there is a need for a centrally located office to meet the mental health needs of deaf and hard of hearing individuals in Arkansas.

STRONGLY AGREE AGREE NEUTRAL DISAGREE STRONGLY DISAGREE

Person completing this form:

Hearing Loss:

Deaf Hard of Hearing

Gender:

Male Female

Race/Ethnicity:

African American Caucasian

Hispanic Other _____

Age Category:

18-30 41-50

31-40 51+

City of Residence: _____

All data will be scanned and stored digitally in a secure location in Dr. Adriana Lopez-Ramirez's office for three years. After scanning all documents, the paper form will be shredded.

Identification Number: _____

If you would like to participate in an interview to talk about your experience or opinion regarding accessibility to mental health services for the deaf and hard of hearing individuals in Arkansas, please list any contact information. This sheet will be shredded after the transcript has been completed in order to protect your privacy. **All data will be scanned and stored digitally in a secure location in Dr. Adriana Lopez-Ramirez's office for three years. After scanning all documents, the paper form will be shredded.**

Name: _____

Phone number for texting: _____

Address: _____

Email: _____

Appendix C

Table 2

Total Reported Barriers by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
No	66.7	57.1	64.9
Yes	33.3	42.9	35.1
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 3

Total Reported Denial or Refusal by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
No	53.3	42.9	51.4
Yes	47.7	57.1	8.6
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 4

Total Perception of Provision of Appropriate Mental Health Services by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	75.0	28.6	66.2***
Neutral	15.0	64.3	24.3
Disagree	10.0	7.1	9.5
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 5

Total Perception of Lack of Funds or Insurance by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	70.0	35.7	63.5
Neutral	26.7	57.1	32.4
Disagree	3.3	7.1	4.1
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 6

Total Perception of Provision of Services Sensitive to Deaf Culture by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	78.3	71.4	77.0
Neutral	11.7	21.4	13.5
Disagree	10.0	7.1	9.5
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 7

Total Perception of Sufficient Providers Specializing in Mental Health and Deafness or Hearing Loss by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	83.3	85.7	83.8
Neutral	15.0	14.3	14.9
Disagree	1.7	0.0	1.4
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 8

Total Perception of Provider's Willingness to Pay for Interpreters by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	46.7	57.1	48.6
Neutral	18.3	14.3	17.6
Disagree	35.0	28.6	33.8
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 9

Total Perception of Fear of Other's Perceptions of Them by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	66.7	28.6	59.5*
Neutral	18.3	28.6	20.3
Disagree	15.0	42.9	20.3
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 10

Total Perception of Stigma Prevents Requesting Services by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	65.0	42.9	60.8
Neutral	18.3	28.6	20.3
Disagree	15.0	28.6	17.6
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 11

Total Perception of Fear of Lack of Confidentiality by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	65.0	57.1	63.5
Neutral	18.3	14.3	17.6
Disagree	16.7	2.86	18.9
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 12

Total Perception of Lack of Awareness of what Constitutes a Mental Health Problem by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	75.0	71.4	74.3
Neutral	16.7	21.4	17.6
Disagree	8.3	7.1	8.1
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 13

Total Perception of Sufficient Number of Interpreters in Their Respective Area of the State by Hearing Loss by Group of R (%)

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	63.3	57.1	62.2
Neutral	20.0	21.4	20.3
Disagree	16.7	21.4	17.6
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Table 14

*Total Perception of the Need for a Centralized Office to Address Mental Health Needs of
Individuals with Hearing Loss by Hearing Loss by Group of R (%)*

Agreeability	R's Hearing Loss		
	Deaf	Hard of Hearing	Totals
Agree	96.7	85.7	94.6
Neutral	1.7	14.3	4.1
Disagree	1.7	0.0	1.4
Totals	100	100	100
(N)	(60)	(14)	(100)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Source: Crosstab Total Agreeability by Hearing Loss

Endnotes

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