THE CURRENT MENTAL HEALTH STATUS OF PROFESSIONAL ASL/ENGLISH

INTERPRETERS IN THE UNITED STATES AS IT PERTAINS TO DISORDERS:

SPECIFICALLY FOCUSING ON ANXIETY, DEPRESSION, STRESS-RELATED

DISORDERS, PERSONALITIES, AND WORK-RELATED INFLUENCERS

Nicole D. Thorn

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

School of Behavioral Sciences

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ABSTRACT

The purpose of this quantitative, variable-centered, correlational research design is to assess the mental health status of professional ASL/English interpreters currently working in the field. Specifically, this study looked at levels of anxiety, depression, and secondary stress within this population. It was postulated that many factors impact the mental health of professional interpreters; therefore, internal factors such as personality as well as external factors such as job demands were assessed. The findings of the research may prove helpful in developing future interpreter education as well as mental health care for current interpreters. A brief history of the profession is given including the occurrence of "gatekeeping" by the Deaf community. Various challenges in the field are described, including physical risks, difficult settings, and secondary trauma. Data were collected via a questionnaire; the Big Five Inventory (BFI); the Depression, Anxiety, and Stress Scales (DASS); and the Secondary Traumatic Stress Scale (STSS). The data collected were used to identify correlations between levels of anxiety, secondary stress, and/or depression in professionals entering the field. Commonality in personality traits among interpreters, certain traits having a propensity toward issues with mental health, and elevated rates of anxiety, secondary stress, and/or depression were found.

Keywords: interpreter, mental health, anxiety, secondary stress, depression, personality, gatekeeping

Dedication

This dissertation and the years of work it represents are dedicated first and foremost to my Heavenly Father. The Lord, God has woven the tapestry of my life with intricate colors and design. At times I only see the underside of His artwork, the process, the messy part, much like the work prior to the completion of this research. At other times, however, I see glimpses of the beauty He has intended for me, and for all. I am grateful for these glimpses and for His guidance of my every step.

I also dedicate this work to the men in my life. To my earthly father, my first love, Philip Denu, Jr., who has been a continuous source of motivation and encouragement. He has taught me the meaning of "stick-to-it-iveness." I call him "Daddy," to this day, but his closest friends know him as "Doc." I aspire to carry on his legacy. And to the love of my life, my husband Ken. Without him this would not be possible. He has always supported me in my seemingly crazy endeavors, and has never tried to clip my wings. He picks me up when I fall, and is my true north.

And finally to the numerous people who have cheered me on from the sidelines. People who have made passing comments, casual compliments, and sent facebook emojis. I want you to know, many of these "small" gestures came at a time when I needed it most. You mean a great deal in my life. Thank you to the friends from back in the days of "The Wick," and to my grad school buddies. Thank you for the numerous students both past and present who mean the world to me. And a special thank you to my interpreter friends and colleagues, and to the Deaf community. You have been a gateway and a support system.

In memory of my mother, Norma Denu.

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List of Abbreviations

American Sign Language (ASL)

Big Five Inventory (BFI)

Child of Deaf Adult (CODA)

Code of Professional Conduct (CPC)

Depression Anxiety and Stress Scale (DASS)

National Association of the Deaf (NAD)

Neuroticism Extraversion Openness (Inventory) (NEO)

Registry of Interpreters for the Deaf (RID)

Secondary Traumatic Stress Scale (STSS)

CHAPTER ONE: INTRODUCTION

Overview

This chapter provides essential background information necessary for understanding the dynamics between Deaf[1] culture and professional interpreters, the history of interpreting, and the unique issues of the profession of English/ASL interpreting. Reflected here is the birth of this young, yet complex profession. It is important to understand both the history and the current rigors of interpreting in order to best understand the mental health of those who practice it.

Background

Although the use of sign language dates back as far as 1817 in the United States (Moore & Levitan, 2016), sign language interpreting as a profession is far younger. Early "interpreting" or facilitating of communication between deaf and hearing individuals took place almost as long ago as the use of the language itself; however, most of these facilitators were clergy, friends, or family (Humphrey & Alcorn, 2007). Most people tie the profession's roots to the establishment of the Registry of Interpreters for the Deaf (RID) in 1964 (Humphrey & Alcorn, 2007); this is a mere 55 years ago! Since that time the field has grown exponentially with over 16,000 members (Registry of Interpreters for the Deaf [RID], n.d., Membership). During these past years a great deal of progress has been made in better understanding the language, Deaf culture, and the process of interpreting. However, the impact of the significant growth (and therefore demand) and how the interpreting process itself affects the interpreter has only recently been reviewed. Workshops (e.g., continuing education) and articles discussing self-care have become more and more common, but it seems that little research has examined the current mental health state of the interpreter in terms of stress and/or anxiety.

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[1] The capitalization of the word "Deaf" represents an individual or the collective that are part of a shared culture. The lower case, "deaf," refers to the physical inability to hear.

Current professors and instructors of interpreter education and training anecdotally report a significant change in their student population. Assignments that were once taken in stride now result in a flood of stress and anxiety (RID National Conference, personal communications, July 8, 2019). These reports do not seem to be isolated events, nor do they seem to be events of little concern. Several instructors reported higher levels of anxiety, crying during class, suicidal ideations, and even hospitalization. This seems to be in stark contrast to the generation of "student" intepreters before. This senior cohort learned interpreting by being thrown into the task of doing, they grew by asking questions, and perhaps most significantly they were vetted by the Deaf community.

These accounts may be anecdotal observations or even personal experience, but the discrepancy may be a significant reflection of a change that has taken place in the field of interpreting. What was once a field comprised of primarily a few Children of Deaf Adults (CODAs), pastors, and educators (Humphrey & Alcorn, 2007), has gradually grown into a profession of thousands with demands for practitioners to have higher and more specialized education (RID, n.d.). Individuals entering the field of interpreting at this time are motivated for different reasons than in the past. There are degree programs being established nationwide and students are starting and at times progressing through their programs having never met a Deaf person (Neumann-Solow, 1981), much less having been vetted by one. Have these changes in the field impacted the type of person drawn to the profession and as a result impacted the overarching personality of working ASL/English interpreters today? In other words, has the group of interpreters previously holding a reputation for being fiercely independent individuals, at times even considered "rigid" as they looked to the needs of others first (Frishberg, 1986),

changed their temperament? Moreover, has this temperament put them at an increased risk for issues pertaining to mental health?

ASL/English interpreters were previously vetted for being physically and mentally prepared to serve as interpreters (Neumann-Solow, 1981). With a significant increase in the number of working interpreters from an estimate of just over 3,000 members in 1986 (Frishberg, 1986) to 14,618 in 2017 (RID, 2017), and currently reported to have over 16,000 (RID, n.d., Membership) one would wonder if the sheer volume of individuals entering the field would preclude the previous screening procedures. Interpreter training/education has also changed significantly over the years. Early interpreters frequently underwent only four to eight weeks of training, compared to the four-year degree programs currently being offered (Ball, 2013). At a cursory glance one may think that the interpreting profession has evolved into a field that is comparative to that of other mainstream professions. Would this "evolution" account for the apparent increase in mental health needs of ASL/English interpreters? Whereas it may be challenging to measure the mental health status of interpreters back in 1986 or even in the year 1999, the current status of mental health for these individuals should be assessed. Does the increase in workshop focus and student interpreters' behavior reflect a need? If the profession of ASL/English interpreting has indeed risen to the measure equally with that of other related fields, how do these professionals compare in terms of mental health needs?

Interpreting Background

Sign language interpreting has been around as long as there have been d/Deaf people. During the early years those providing interpreting services were generally individuals who had deaf family members, were teachers of the deaf, or were members of the clergy (Humphrey & Alcorn, 2007). ASL, at that time, was not considered a distinct language but rather more of a

system of gesture. The valuable service these people were providing was not recognized as true

interpreting because interpreting was (and is) defined as the action of changing a message in one

language into that of another language (Ball, 2013). If ASL was not a language, then these early

pioneers could not be recognized as interpreters. In the mid to late 1950s, however, two things

took place that had a significant impact on the profession. In 1957 William Stokoe embarked on

a research project that others deemed "foolish." He began to analyze ASL from a linguistic

perspective (Ball, 2013). His findings were published in 1965, and ASL was for the first time

recognized as a distinct language with unique morphology, phonology, syntax, semantics, and

more (Ball, 2013).

Related Legislation

The second impactful event of the 1950s was the passing of a piece of legislation called

the Vocational Rehabilitation Act Amendment (P.L. 83-565) (Ball, 2013). This law mandated

the provision of ASL/English interpreters for deaf and hard-of-hearing individuals seeking

government services for counseling education, training, and other vocationally related services

(Ball, 2013). This legistation was followed by P.L. 89-333, The Vocational Rehabilitation Act

of 1965; P.L. 93-112, The Rehabilitation Act of 1973; and P.L. 95-602, Rehabilitation

Amendments of 1978. Each of these had an impact on the provision of interpreters for deaf and

hard-of-hearing individuals (Humphrey & Alcorn, 2007). P.L. 94-142, Education for All

Handicapped Children Act of 1975, required students to be taught in a "least restrictive

environment" (Humphrey & Alcorn, 2007). This law was the catalyst for mainstreaming and

interpreters were provided for students in regular classrooms. More laws followed and continued

to impact the mandate for interpreting services, but perhaps none had more impact than the

Americans with Disabilities Act of 1990. This law reached the private sector with mandates for accessibility including that of interpreting services (Humphrey & Alcorn, 2007).

With the passing of numerous legislations, the demand for interpreting services increased exponentially and with this came an increased demand for training and education (Ball, 2013). As stated earlier, the primary mode of learning for intepreters consisted of a brief four to eight weeks of training (Ball, 2013). They gained the remainder of their skill development from experience. As the demand for qualified interpreters increased, the opportunities for formal education also increased. However, the tradition of the Deaf community serving as gatekeepers decreased. This tradition of gatekeeping consisted of the Deaf community informally assessing the individual's skills and attitudes prior to their entry into the field of interpreting. In other words, the Deaf community screened people before they became interpreters (Hunt & Nicodemus, 2014; Miner, 2018).

A Brief History of Interpreter Education

In 1964 a group of interpreters got together to conduct their own type of training and recognized the need to increase the level of professionalism in the field. The Registry of Interpreters for the Deaf (RID), the governing body for certification, continuing education, and ethics, was born (Humphrey & Alcorn, 2007). In 2012 the RID, by membership vote, passed a new regulation requiring a bachelor's degree, in any course of study, in order for an individual to sit for the national exam (Ball, 2013). This mandate, along with the predecessor of the requirement of an associate's degree in 2009, caused the gradual increase of interpreter education programs. According to the RID, there are currently 56 schools offering bachelor's degree programs in the United States (n.d.). There has also been an influx of popularity for the language component of the field, ASL. ASL is now, as of 2013, considered to be the fourth most popular

language in the US with a 216.3% growth in course enrollment (MLA, 2015). With this increase

in demand for interpreters, and the rapid growth of interpreter education programs, the

opportunities for members of the Deaf community to serve as gatekeepers continues to decline

(Hunt & Nicodemus, 2014). As a matter of fact, the use of any type of entry-level screening for

students entering training has declined or was never established in the first place (Ball, 2013).

Well-Being of Interpreters

Historically the profession of sign language interpreting has focused on the language and

the people (Deaf culture), and rightfully so. Although advocates for the Deaf community have

made much progress toward equality for d/Deaf people through various legislation, a nationwide

shortage for qualified ASL/English interpreters remains. Interpreter education continually

endeavors to match the demand with more programs and higher standards. Interpreters' models

have transitioned from well-meaning "helpers," to process-focused "machines," to a more socio-

cultural approach of bicultural (Deaf and hearing cultures)/bilingual (ASL and English), or "bi-

bi" (Humphrey & Alcorn, 2007). However, none of these models seem to consider the

personhood of the interpreter. As the profession became more established, providing full-time

work, concerns surrounding physical implications such as an increased risk for carpal tunnel

syndrome or repetitive motion syndrome started to arise and were explored (Smith, Tyler, Kress,

& Hart, 2000). Even with these considerations, the interpreters' mental well-being seemed to be

overlooked. Furthermore, with all the growth, the Deaf community are no longer serving as the

gatekeepers and are not screening individuals prior to entering the field. Despite

recommendations for entering students to possess advanced skills in sign language, knowledge

of the Deaf community, and knowledge and appreciation of human behavior as it pertains to

sociocultural systems, consistent mandates with interpreter education programs have not

replaced the added layer of vetting previously provided by the gatekeepers (Ball, 2013). Could this oversight have a negative impact not only on the interpreting process and the Deaf community, but also on the interpreter's mental well-being?

Problem Statement

When perusing the available workshops for professional interpreters on a national level, one can only find three projected trainings concerning personal mental health between July 2019 and September 2019 (RID, n.d., Workshops). On the state level there are often no such courses as evidenced by the fact that none were available via the Virginia state chapter of RID from November 2014 to June 2019 (Virginia Interpreters for the Deaf [VRID], n.d., Workshops). The occasional available workshop usually addresses the matter on a broader, more general level such as simply stated "self-care." At quick glance it may seem this scarcity is a reflection of a lack of need, yet numerous articles imply the contrary. As an interpreter the meaning and intent of the speaker (either the Deaf person or the hearing person for whom they are interpreting) must be conveyed as accurately as possible without the interjection of their own thoughts and/or feelings (Patrie & DawnSignPress, 2009). One article addresses how this removal of self and expressing the emotions of another individual while using first person language can have the potential for psychological ramifications (Hsieh & Nicodemus, 2015). Another article postulates that the intimate interactions interpreters have with their clients and the manner in which they share their linguistic expression may result in their having similar trauma, referred to as *vicarious trauma* (Bontempo & Malcolm, 2012). It would seem that various aspects which may have a negative impact on the mental well-being of professional interpreters continue to increase as the field is growing. Interpreters seem to be discussing matters surrounding mental health, and researchers recognize the potential for a mental health concern, but the empirical evidence is

lacking. This dearth of research may, in part, be due to the strict adherence to National Association of the Deaf – Registry of Interpreters for the Deaf Code of Professional Conduct, or NAD-RID CPC. The CPC states that interpreters must adhere to confidentiality and must refrain from personal opinion (RID, n.d., Code of Ethics). These parameters may curtail data collection, and the reduced opportunity to process information or experiences may also negatively impact the interpreter's mental health (Macdonald, 2015). The problem is there is not enough, if any, research which identifies the current state of the mental health of professional ASL/English interpreters. Having this data is essential to substantiate the need and then develop protocol to address mental health issues for interpreters preventatively or restoratively.

Purpose Statement

The purpose of this study is to assess the mental health status (current state) of professional ASL/English interpreters currently working in the field by evaluating the state of their anxiety, secondary stress, and depression levels as well as significant personality traits. For personality traits, the study assessed openness, conscientiousness, extraversion, agreeableness, and neuroticism. It is postulated that many factors impact the mental health of professional interpreters. These influencers include internal elements such as the personality of the individual, the emotions being conveyed (in first person) by the interpreter, and the level of self-care these professionals practice. External influencers may include physical challenges, the setting of their occupational practice, and the various responsibilities recently added to the position of those in the field.

Significance of the Study

There seems to be a great deal of concern regarding the potential of vicarious trauma in interpreters based on the shared expression of emotions, and to some extent incidental

experiences (Hsieh & Nicodemus, 2015). There is also the ideation that certain personalities are drawn to certain professions (Muscatello et al., 2017), and some traits are more effective in the field than others (Bontempo, Napier, Hayes, & Brashear, 2014), and yet other dispositions are more prone to mental health issues (Lo et al., 2017). Perhaps interpreters with certain personalities may be more susceptible to vicarious trauma and/or anxiety. Furthermore, the setting itself for interpreting may also impact the professional's mental well-being. Many sites have reported that their interpreters feel inadequately trained (Napier, Skinner, & Turner, 2017), or frustrated and unsupported (Cogen & Cokely, 2015). While certain recent studies have included aspects of the mental health of an interpreter, the focus has been on indirectly related areas. This study is significant because it pulls together the various influencers to determine the current standing of interpreters in general and the future risk they have for mental illness. Having a better understanding of the risks and the current impact on the people of this profession opens the door for future research to develop better education programs, prevention techniques, and treatment plans.

Research Questions

RQ1: Is there evidence of elevated levels of anxiety, depression, and secondary stress within the profession of ASL/English interpreting?

RQ2: Do professional ASL/English interpreters have common strengths and/or weaknesses among the Big Five personality traits, and if so, do the combinations of traits have a higher incidence of issues with mental health?

RQ3: Is there a correlation between the reported external influences of ASL/English interpreters, such as environment and task demands, and an increased risk for mental health issues?

Definitions

1. *American Sign Language (ASL)* - ASL is a distinct language with its own grammar and syntax. Unlike signed English (a form of "coding" the English language), ASL is linguistically recognized as a unique language. ASL is used and cherished by the Deaf community of the United States (Moore & Levitan, 2016).

2. *Anxiety* - Often difficult to separate from fear (a present-tense phenomenon), anxiety is a sense of real or perceived threat or foreboding. It is a feeling based on a thought or series of thoughts (Smith, 2018).

3. *Code of Professional Conduct (CPC)* - The CPC is a code of ethics developed by the combined organizations National Association of the Deaf (NAD) and the Registry of Interpreters for the Deaf (RID). This ethical mandate consists of seven tenets and numerous subtenets with the most significant being the requirement to keep all information from an interpreted assignment confidential (RID, n.d.).

4. *Deaf Culture* - A complex, social, and communal force predominantly comprised of deaf and hard-of-hearing individuals with ASL being the common thread and valued foundation of the community. Within Deaf culture there is unique and shared social protocol, art, and many other aspects divergent of the mainstream culture (Moore & Levitan, 2016).

5. *Interpreter* - This term, as applied to this research, is synonymous with the longer term *ASL/English interpreters*. Both of these terms refer to the individual who conveys the discourse of one language into the discourse of another language and vice versa. For example, if a Deaf individual is expressing themselves in ASL the interpreter will use

spoken English to convey the meaning and intent of the ASL message. They will also convey a message given in spoken English in signed ASL (Humphrey & Alcorn, 2007).

6. *National Association of the Deaf (NAD)* - Established in 1880, NAD is a civil rights organization of, for, and by the Deaf (NAD, n.d.).

7. *Nationally Certified Interpreter* - An individual who has met or exceeded the standards established by RID for general knowledge, skills, and ethical decision-making regarding interpreting (RID, n.d., Certification).

8. *Personality* - A combination of traits from five domains of various human behavior as generally defined by the BFI (John & Srivastava, 1991).

9. *Registry of Interpreters for the Deaf (RID)* - Established in 1964, this organization aspires to establish a high standard for interpreters, encourage growth in the profession, and educate others about the field (RID, n.d., Mission).

10. *Secondary Traumatic Stress* - A syndrome almost identical to that of Post-Traumatic Stress Disorder (PTSD) (Bride, Robinson, Yegidis, & Figley, 2004).

11. *Vicarious Trauma* - Having symptoms of PTSD as a result of being exposed to someone else's trauma (Finklestein, Stein, Greene, Bronstein, & Solomon, 2015).

Summary

With the rapid growth in the relatively new profession of ASL/English interpreting, the focus of field research has been on the process and cognitions of the skill and little thought has been given to the interpreter as a person. Recent studies in related areas have postulated the risk of post-traumatic stress for interpreters, but specific research on this topic is scarce or non-existent. This study creates a foundation on which future research can be built. By looking at the impact of the interpreting process, personalities of those drawn to the field, and external

influential factors, professionals will have a better understanding of the mental health status of working ASL/English interpreters. With this understanding, interpreter training programs can better prepare people entering the field, and counselors can better address current job-related issues facing interpreters today.

CHAPTER TWO: LITERATURE REVIEW

Overview

Although the early years of serving as an interpreter have little similarity to that of the work interpreters do today, it is important to understand this vocation's foundation to better understand the current mental health issues of professional interpreters. What was once a gesture of assistance has become a burgeoning profession. Having a knowledge of this progression may aid in a better understanding of the mental health issues of those entering the field both in its early years and now. Furthermore, the various aspects required of the interpreting tasks as it stands today should be examined. And finally, the internal (e.g., personality), and external (e.g., challenging work sites) influencers that may impact the mental health of the interpreter need to be outlined in order to proceed with the research.

A Brief History of Interpreting

The early pioneers of ASL/English interpreting were comprised primarily of friends, family, clergy, and teachers of Deaf people. When the need arose these individuals would step in and facilitate communication between Deaf people and hearing people. However, they would often summarize the discourse instead of delivering a complete message (with the meaning and intent of the speaker), and would frequently interject their own opinions, advice, or use the opportunity to teach the deaf or hearing individuals (Humphrey & Alcorn, 2007). Prior to 1964, the establishment of RID, formal training did not exist. In fact, most of those serving as interpreters did so as volunteers (Humphrey & Alcorn, 2007). Now, 55 years later, interpreters are mandated to develop a specialized skillset, acquire an extensive knowledge base, and be well versed in ethics related specifically to the field (RID, n.d., Certification). Numerous laws have been enacted requiring interpreters to be qualified and impartial. Some states have established

licensure laws for their interpreters (Humphrey & Alcorn, 2007). It is significant to note that at

the same time this profession was developing, ASL, the heart of the field and its correlating

culture (Deaf), was just becoming recognized as a true language. The significance of this is far

reaching, but for interpreters it gave creditibilty to a profession based on the exchange of one

language into another. Both modes of communication (English and ASL) needed to be

recognized as a unique natural language (Ball, 2013). Prior to 1965, signed language was

considered nothing more than a gesture system used by the d/Deaf. In 1965 William Stokoe

conducted extensive research pertaining to the linguisitcs of ASL. His publication, *Dictionary of*

American Sign Language on Linguisitc Principle, brought linguistic evidence to support ASL as

a true language (Ball, 2013*).*

This relatively young field had a great deal of growing pains with the simultaneous

legitimization of both the profession and the language itself. As a result, the focus for training

was often on language learning (ASL) and later how to cognitively process one language into

another (Ball, 2013). In the 1980s interpreters recognized the need to include aspects of Deaf

culture in their interpreted product with the Bilingual-Bicultural model of interpreting

(Humphrey & Alcorn, 2007). Sociologically speaking this may have been the first time people

were considered in the discourse product. Since that time a great deal of focus has been on

meaning and intent of the speakers (both hearing and Deaf) in order to achieve dynamic

equivalence in the message (Patrie & DawnSignPress, 2009). However, also in this process the

interpreter has taken on the role of both the hearing person and the Deaf person. He or she has

spoken or expressed their thoughts, their ideas, and their feelings while needing to set aside their

own thoughts, ideas, and feelings. This raises an important question: How has the interpreting

process and role impacted the mental health of the professional interpreter?

The interpreting profession was symbolically established in 1964 during a meeting at Ball State University (Ball, 2013). However, interpreting was not formally recognized until the 1970s (Cokely, 2009). Prior to that the act of facilitating communication between Deaf individuals and those within the hearing community resulted from the volunteer services of an untrained individual, or simply did not happen at all. Even the auspicious occasion marked as the birth of the profession only had two out of 73 individuals who referred to themselves as "interpreters." Interpreting was considered neither an occupation nor a profession. It was simply an act of service so a Deaf individual would have access to communication (Cokely, 2009).

As the profession gradually began to take shape, the Deaf community was at the helm. However, ASL was denied recognition as a language until the 1960s, and Deaf individuals were (and sometimes are still are) discouraged or even banned from its use (Moore & Levitan, 2016). As a result Deaf people did not often sign in public and did not frequently share their language with hearing people. The language itself, however, flourished and was (and still is) central to the rich, close-knit Deaf community (Moore & Levitan, 2016). For this reason, only certain hearing people were exposed to and taught ASL. Their language learning was often primarily from Deaf people, and the Deaf community monitored their progress. Skill in the language was not the priority, but rather the development of an understanding and respect for the Deaf people and their culture (Cokely, 2009).

The Deaf community, having served as gatekeepers of the language (ASL), absorbed the responsibility of screening for those who would be best fit to interpret (Cokely, 2009). *Gatekeepers* can be defined as those who conduct a type of vetting process to determine if the individual is qualified and prepared for the field into which they are endeavoring (Hunt & Nicodemus, 2014). And as previously stated, this scrutiny from the Deaf community reached

beyond the skills of comprehending and expressing ASL. Informally the gatekeepers also examined the emergent interpreter's understanding of the Deaf community, their respect for those within the community, and their overall trustworthiness (Cokely, 2009). This organic system continued for decades until RID established their own formal certification exam in 1972.

In 1972 RID established a system in which individuals are assessed on their ethics, their signing skills, and their interpreting skills (Ball, 2013). The process has been adapted and the exam revised numerous times over the years. One of the latest changes has been the added requirement of a bachelor's degree in order for a candidate to sit for the exam (Ball, 2013). The degree is not required to be in the field of interpreting, but will undoubtedly impact the growth of four-year degree programs in interpreting. Whereas these changes have been carefully developed and even voted upon (RID is a member-driven organization), the impact on the Deaf community has not been fully determined. One unintended consequence of this shift seems to be the removal of the gatekeeper (Cokely, 2009; Hunt & Nicodemus, 2014).

The removal of a gatekeeper or a grassroots method of assessment of an individual's readiness to enter the field of interpreting has impacted the field in several ways. The first and most obvious is that active interpreters often lack the skills required of them for that particular task. This ongoing and seemingly increasing issue has resulted in mistrust from the Deaf community (Cokely, 2009). Conversely, the larger population would see the credentials of these interpreters and assume their qualification and skill level. Where the Deaf community saw an inefficient process, the larger population saw a seal of approval or official certification. RID continued to revise and adjust their instrument(s) and aspired for improved reliablity and validity (Cokely, 2009). In an academic sense, some schools have sought methods in which to best evaluate incoming students and have devised their own instruments. Alas, most programs have

simply gone without such a tool and rely on outgoing assessments required for graduation (Hunt & Nicodemus, 2014).

While there have been numerous unintended consequences of the inadvertant removal of the gatekeepers (i.e., the Deaf community), perhaps one of the most detrimental has been the breach between the Deaf community and the interpreting community. What was once a relationship based on mutual trust (those in the interpreting field had already been vetted by those in the Deaf community) is now often riddled with mistrust. Perhaps it is not a coincidence that the term *audism* emerged around this same time period. *Audism*, a person's sense of supriority because they have the ability to hear, was first coined in 1975 by Tom Humphries, a Deaf scholar (Bauman, 2004). Deaf individuals experience this type of oppression daily, but during the early years interpreters were often family members or had a direct relationship with the Deaf community and the rift seemed less cavernous. With the movement of interpreter certification and later education becoming more systemic, this relationship changed. Audism, as with other "-isms," does not take place only on an individual level, but the deeper oppression occurs institutionally (Bauman, 2004). With the vast majority (99%) of society being hearing, the mindset of the culture is based on the ability to hear (Bauman, 2004). This hearing-privilege is seen in many environments, but most prominently in settings where the two cultures collide with issues such as accessibility to the same message. Online training for staff with audio and no captions, or signers who use both spoken English and signs simultaneously are two such examples. This "Sim-Comm" approach (using spoken English and signs at the same time) can be percieved as a modality to maintain the majority culture's language while accommodating the signer. Audism and the sidelining of Deaf gatekeepers have impacted the grassroots assessment of individuals preparing for the demands of the interpreting profession. These "assessments"

often include issues pertaining to social interaction with both Deaf and hearing individuals. The field has lost more than an arena of expertise in signing. Perhaps, a rift has been formed that allows unqualified, unprepared individuals into a field where they may cause more harm than good, not only to the Deaf community but also to their own well-being.

<div align="center">**Theoretical Framework**</div>

Mental Health

Mental health is a broad topic ranging from feelings and emotions to diagnosable disorders in need of treatment. The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* begins its 947 pages with a discussion of basics and then moves into neurodevelopmental disorders, continues through dissociative disorders, and concludes with medication-induced movement disorders and other conditions (APA, 2013). Clearly the matter of mental health is extensive. As far sweeping as the various mental disorders of the *DSM-5* seem to be, there are common threads. This paper addresses a few of these threads. One such commonality is that of mental health and the work. Individuals may experience any number of disorders for various reasons, but this particular study examines the mental health issues either influenced by or influencing the interpreter's professional well-being.

Since an estimated $201 billion annually goes toward Americans suffering with mental illness, it is important to look at correlations to this growing phenomenon (Roehrig, 2016). The broadness of mental health could contribute to this vast number, but a closer look shows three subcategories rise with the highest personal health spending: anxiety, depression, and dementia (Roehrig, 2016). One of the most frequently reported mental health issues among workers is stress. Furthermore, it has been fairly established that stress can lead to additional mental health issues (Giorgi, Leon-Perez, Pignata, Demiral, & Arcangeli, 2018). Since dementia is not a

mental health issue frequently tied to work, this study examines the mental health of professional interpreters as it pertains to stress, anxiety, and depression.

The use of these three words is fairly common. It is not unusual to hear workers in almost any setting exclaim that they had been or were currently stressed over a certain circumstance. But, this would not be a clinical sense of the word. *Anxiety,* although perhaps used less casually, is still a commonly used term in society's vernacular. The saying, "I almost had an anxiety attack," would be demonstrative of its more flippant and less quantifiable definition. The term *depressed* is probably the most frequently used and arguably the most misused word. Phrasal use may vary from the likes of, "I was so depressed when they cancelled my favorite TV series," to "I was really depressed yesterday when (fill in the blank), but I'm over it now." The frequency of these words may, in fact, lead to a misunderstanding of the diagnostic definition of the terms. Therefore, the following three terms will be defined by the *DSM-5* (APA, 2013), as well as other instruments of measure to be used within this study:

Stress. The term *stress* is perhaps frequently oversimplified because the term falls under a broad category of trauma- and stressor-related disorders. Within the pages of the *DSM-5,* under the category of trauma- and stressor-related disorders, there are seven different disorders and numerous additional subcategories (APA, 2013, pp. 265-290). Stress is anything but simple. For the purposes of this study, the term *stress* refers to secondary stress as defined by Bride et al. as "…intrusion, avoidance, and arousal symptoms resulting from indirect exposure to traumatic events by means of a professional helping relationship with a person or persons who have directly experienced traumatic events" (2004, p. 28).

Anxiety. People often confuse stress with anxiety. Perhaps part of the confusion lies in the stressors that cause the anxiety. Someone might logically conclude that because they have

multiple stressors in their life, the mental heath issues they are experiencing must be due to

"stress." However, *anxiety* might be a better term for the discomfort they are experiencing.

Anxiety, much like stress, has numerous pages within the *DSM-5* dedicated to its description,

diagnosis, and associated disorders. For the purposes of this study, however, *anxiety* is defined

as excessive worry or distress for a prolonged period of time (APA, 2013, p. 222).

Depression. This disorder also has a demanding presence within the *DSM-5*,

commanding more than 88 pages (APA, 2013). However, the specific disorders such as

Disruptive Mood Dysregulation Disorder, Persistent Depressive Disorder (Dysthymia),

Premenstrual Dysphoric Disorder, and Substance/Medication-Induced Depressive Disorder all

reach beyond the scope of this study. This study reviews professional interpreters in the field

who are experiencing clinical depression and not the normal sadness and grief that may occur

from an event, or a passing emotion of the same name. *Depression*, as it pertains to the study,

can be defined as the "…presence of sad, empty, or irritable mood, accompanied by somatic and

cognitive changes that significantly affect the individual's capacity to function" (APA, 2013, p.

155). It is also significant to note that depression differs from normal sadness or grief in

duration, timing, and etiology.

Experience and Personality Traits

Interpreters are not social workers, nor are they therapists. However, it may be beneficial

to examine these fields as they are older and have more extensive research available. One such

study looks at the impact of vicarious trauma on therapists and uncovers the fact that

professionals who have experienced trauma in their own pasts are more susceptible to

experiencing vicarious trauma in their work (Pearlman & Mac Ian, 1995). Furthermore,

practitioners who were new to the field also seemed to be at an increased risk for vicarious

trauma (Pearlman & Mac Ian, 1995). These two factors, past experience and newness to the field, seem particularly pertinent to practicing ASL/English interpreters. History discussed earlier in this study reveals that most interpreters prior to 1964 were volunteers. Other than family members, the volunteers' exposure to potentially traumatic events was minimal as their exposure to interpreting of any kind was limited. With the growth of professionals in the field of interpreting exploding from 3,000 in 1986 (Frishberg, 1986) to 16,000 in 2019 (RID, n.d., Membership), newness to the field seems to be particularly poignant. There are simply more interpreters working with less experience. Could this mean that these novices are at an increased risk for vicarious trauma?

Along the same lines as the question of a proclivity toward vicarious trauma is the question of disposition and its impact on the interpreter and the interpreting process. Where at one time interpreters were either friends or family of the Deaf, and most likely had been vetted by the Deaf community (also called *gatekeepers*), people are now drawn to the field for other reasons. Are people with a specific disposition or personality drawn to the field? Are those drawn to the profession, but not necessarily vetted, most likely to be the most competent? Can one predict competency based on personality?

Human beings are complex. This is evident on many levels, with personality being no exception. Isabel Briggs Myers, cofounder of the popular Myers-Briggs Type Indicator (MBTI), was reported to be spurred on in her reseach by the unique personalities she observed in people. Her belief in the understanding of personality was so strong that she felt it could prevent future wars (Center for Applications of Psychological Type, Inc. [CAPT], 2001.). The *DSM-5* includes an extensive section on personality disorders (APA, 2013). Looking at personality from a comparitive or judgmental outlook could skew the results one is seeking. So how can one

measure personality without a direct comparison between traits or without adding judgment or value in order to assess its ties (or lack thereof) to interpreter skillset?

People often use the term *personality* in social conversations with implied, but ill-defined meaning. Sayings like, "She has a lot of personality," or "That is just his personality," may elicit head nods, but clear meaning is still deficient. Moreover, some descriptions may be interpreted as derogatory or negative, or simply confusing. For example, what exactly is the definition of "nice"? Is it measurable? Is "nice" comprised of additional elements that should be broken down and examined individually? The general population seems to think they have an understanding of personality and even the differences in personality (perhaps this could, in part, account for the myraid of personality books that line the bookshelves in the bookstores both online and down the street). However, for the purposes of research this concept must be measurable.

Developers created the NEO Personality Inventory to circumvent many, if not all, of the various problems surrounding the assessment of personality. The NEO originally "…was developed as an inventory to assess personality characterisitcs of a normal population" (Groth-Marnat & Wright, 2016, p. 490). In response to the nebulous understanding of *personality*, these developers pulled three specific traits which they thought were representative of an individual's personality: Neuroticism, Extraversion, and Openness to Experience. These three elements became the acronym for the inventory: NEO. They later expanded the inventory to include two more traits: Agreeableness and Conscientiousness (Groth-Marnat & Wright, 2016). This tool has addressed many of the challenges of investigating personalities. It has opened the door to larger audiences with its ease of language, lack of negativity or judgment, and a refinement of what is being assessed.

Researchers have revised and expanded the NEO over the years. The NEO-PI-R, not unlike its predecesors, consists of an inventory which utilizes the lexical Big Five factor as its foundation. The *Big Five* refers to the five domains now commonly accepted by pychologists. In response to the quandary of having hundreds of possible descriptions for any given personality trait, a team of researchers conducted multiple literary studies. Through the use of English adjectives, various personality traits were described with a clear understanding and little overlapping. Researchers created five domains: openness, conscientiousness, extraversion (sometimes spelled extroversion), agreeableness, and neuroticism (Goldberg, 1990). Each of these dimensions have multiple correlating trait facets. These associated adjectives give more depth to the assessments.

One version of the Big Five personality assessment which has emerged over the years is the Big Five Inventory (BFI). It was developed by John, Donahue, and Kentle (1991, as cited in John & Srivastava, 1999). The BFI, while maintaining the premise of five primary domains of personality, differs from the NEO as it uses short phrases instead of single-word adjectives (John & Srivastava, 1999). The phrases still utilize the natural vernacular of the general population, but have been evaluated as more consistent than their single-word counterparts. Furthermore, the 44-item format requires less time from the participants. The NEO and its updated versions may rate higher in comparisons of validity when the research calls for more specific facets, but in general the BFI maintains high levels of validity (John & Srivastava, 1999).

Dr. Karen Bontempo spearheaded a research project concerning personality and sign language interpreters entitled, *Does personality matter? An international study of sign language interpreter disposition* (Bontempo et al., 2014). Within this, the largest report of its kind, several issues are examined including the correlation between an interpreter's personality and their

performance as an interpreter. Findings indicated that interpreters within the United States rated self-esteem, openness to new experiences, and conscientiousness as top predictors of competency in the profession (Bontempo et al., 2014). These findings seem to correlate with an older study by Jo Anna Liedel (1996) in which she found that the majority of the 96 educational interpreters surveyed had personalites that were extraverted, intuitive, feeling, perceivers (ENFP). It is important to note that while initially these two studies may be looking at the same thing, one is looking at potential or predicators of success in a professional interpreter while the other study is examining interpreters already in the field. Another notable difference is that Bontempo et al. published their report in 2014, and Liedel's work took place in 1996. That is a gap of 18 years. Is it possible that the individuals currently in the field and those currently drawn to the field are of a different temperament than their predecessors? Without the Deaf community's involvement as gatekeepers, with the changing laws such as the Americans with Disabilites Act of 1990, and with the RID's mandating a bachelor's degree in order to sit for the national interpreter's certification exam, is it possible that those in the field have different temperaments and may be in a different mental state than interpreters of the past? Liedel's study indicates that in 1996, interpreters had an inclination toward being outgoing, were open to new experiences, and made conscientious, value-driven decisions. The work of Bontempo et al. seems to indicate that individuals with these same temperaments are the individuals who will become effective interpreters. Considering the span of time between the two studies, and taking into consideration that one study is looking at existing personality types while the other is looking at traits that lead to future success, it is possible to conclude that both studies researched the same population of interpreters. With exisiting data a new look should be taken at those currently in the field. By examining the personalities of interpreters and the status of their

current mental health, the resulting correlations could help to identify individuals at risk. The findings may also create a baseline for future research, for developing mental health treatment, and for designing prevention plans.

Yet one more perspective to consider, in terms of personality, is the increased occurrence of mental health issues in individuals with certain dispositions. One study examined the correlation between personality, metacognitions, and positive mental health. The results showed a positive correlation between several aspects of personality and metacognitions (Marino et al., 2016, 2018. Furthermore, in a two-continua study of personality and psychopathology, and personality and positive mental health, researchers found a correlation between personality and positive mental health and a differential correlation between personality and psychopathology. More specifically, they found that agreeableness and extraversion were uniquely related to positive mental health (Lamers, Westerhof, Kovács, & Bohlmeijer, 2012). If there is such a correlation, what does that look like in professional interpreters? Studies indicate that personality may actually be a predictor of risk for psychopathology (Thalmayer, 2018); therefore, having a better understanding of the more common personality traits in interpreters may be essential in developing more effective interpreter education programs and treatment plans for professionals.

Occupational Hazards

It would not be difficult to argue that most jobs have an element of stress at one time or another. The field of professional ASL/English interpreting is no exception with its own unique set of stressors. Interpreting's brief 50-year history has yielded limited research on the mental well-being of the interpreter. Most of the research seems to have been conducted on the linguisitical and performance components of the profession. With this lens, however, the past

research has identified issues such as physical challenges, cognitive strain, and the unique issues surrounding various settings in which interpreters find themselves. Research in unrelated fields has found that many of these external stressors may be tied to issues pertaining to mental health. Carpal Tunnel Syndrome, for example, has long been a point of concern among professional interpreters with reports of practitioners being as much as five times at risk compared to the general population (Smith et al., 2000). Dr. Tomina Schwenke postulates and supports a theory that Carpal Tunnel Syndrome may in fact be more than a result of repetitive motion; it may actually be a culmination of additional factors such as stress and perfectionism (2015). This theory of external influencers is foundational for the research contained within these pages.

Societal pressures may be another overlooked factor impacting the professional ASL/English interpreter's mental well-being. For example, the passing of the American Disabilities Act (ADA) in 1990 now provides Deaf individuals with the right to a "qualified" interpreter (Humphrey & Alcorn, 2007). The passing of this act has profoundly impacted the Deaf community and the interpreting profession alike. For the first time in U.S. history, deaf individuals had a legal stance for requiring the use of an interpreter. Whereas the public may understand accessibilty as a ramp for a person who uses a wheelchair, few seemed to understand how this applied to the concept of accessibility for communication. As the law has gained traction over the years, the definition and understanding of the concept of *qualified* remains nebulous. Since the law does not define the word *qualified*, it is left up to the public's interpretation. This, combined with misunderstandings of the difference between ASL and signed English and just a general misunderstanding of manual communication has, at times, opened the door to public comment. The ongoing misgivings surrounding the field along with debates pertaining to the use of interpreting versus transliteration, and the misconceptions about

the ability to remain neutral or "invisible" in the interpreting setting have impacted the interpreter and their identity (Metzger, 2011). Many of these issues have erupted or evolved since the passing of ADA in 1990. Has this current trend impacted the mental health of professional interpreters?

In recent years the issue of interpreters and audism has been brought to the forefront. The term *audism* was coined in the 1970s, but points to a long-standing issue: discrimination against deaf people (Bauman, 2004). The occurrence of audism may affect professional interpreters in many ways. The firsthand experience of seeing or interpreting in a situation where a Deaf individual is not treated with equal respect can be upsetting and is postulated to cause a type of vicarious trauma (Darroch & Dempsey, 2016). Furthermore, interpreters themselves may be directly or indirectly responsible for audism. Where it was once thought that interpreters could remain neutral in an interpreting environment, this is often not the case (Metzger, 2011). The interpreter's level of professionalism, their sense of ethics, and the degree of their skillset may all impact their ability to remain neutral (Metzger, 2011). This lack of neutrality increases the risk for often unintentional audism on the part of the interpreter. One example of this is the use of English, either signed or spoken, and only a brief acknowledgment to ASL. English is tied to the ability to hear and therefore implies superiority (Bauman, 2004). The issue of audism is systemic and far reaching. As the facilitator of communication, is the interpreter negatively impacted by this sweeping matter of oppression?

Related Literature

Interpreters attending professional workshops and conferences over the past several years may have seen an increase in topics surrounding mental health, in particular vicarious trauma and self-care. However, empirical evidence specifically tied to the mental health of interpreters

or supporting matters such as vicarious trauma and self-care seems to be scarce. The following literature review draws together various studies that served as the catalyst to this current study. Each piece of research presented addresses a small component of aspects that may influence the mental health of a professional interpreter.

General Demographics of Professional Interpreters

When looking at the demographics of those within the profession of ASL/English interpreting it is important to note that interpreting, although often thought of as pertaining only to linguistics and syntax, does in fact involve sociocultural aspects as well (Roy, 2002). This sociocultural linguistic approach is taught and encouraged within interpreter education programs. Historically, interpreters consisted of CODAs, clergy, teachers, and friends or family (Humphrey & Alcorn, 2007). These individuals meant well but were untrained. Their interpreted product initially followed "The Helper Model," in which much of the communication was summarized or edited according to what the helper thought was best. The result was not full communication. Later individuals, deciding to focus more on providing language access for the Deaf (often pulling from the same pool of friends, family, and teachers), adopted "The Machine Model," which resulted in a linguistically based passing of words from one language into another (Humphry & Alcorn, 2007). Recent years have brought about a variety of theories, models, and schemas. Interpreting education programs have been established in two-year programs, and now (since 2012) in four-year degree programs (RID, n.d.). These programs now focus more on sociocultural aspects of interpreting. Aspects within this subject matter include Deaf culture, multicultural individuals, and many other factors which influence the discourse and therefore will influence the interpreted product. Discourse is being assessed and processed on a deeper level. Within this wider and deeper perspective, interdependent perspectives of language are

recognized and incorporated into the interpreted product as is the established goal of communicating in a manner which is socially appropriate, meaningful, and linguistically accurate (Roy, 2000, p. 15).

Whereas the addition of sociocultural considerations and discourse analysis to interpreter education may seem to be unrelated to the demographics and mental well-being of the professional interpreter, the premise of the research conducted within these pages brings evidence to the fact that these educational expansions and shift in schema may indeed impact interpreter issues. Moreover, the changes in interpreter demographics, as well as the changes in the interpreting process may significantly factor into the change in the overall mental health of the professional interpreter. These factors may include different temperaments (aka personalities) of those drawn to the interpreting profession, as well as the occupation's various stressors.

Older demographics. In 1981 Dennis Cokely, an icon in the interpreting community, conducted a demographic study of Sign Language interpreters. This study, which may be the only study of its kind for that time period, focused on ten categories: personal characteristics, family backgrounds, educational backgrounds, spoken language background, Sign Language background, contact with the Deaf community, interpreting background, reading/viewing habits, and socioeconomic status (Cokely, 1981;1982). Cokely's findings indicated that in 1980 the interpreting profession comprised 76.2% female, 97.6% caucasian, 83.8% right-handed, 59.9% having a BA/BS degree, and 81.9% holding RID national certification (Cokely, 1981;1982). One finding reports that 21.3% of the respondents never studied English in high school, and 38.1% never studied English in college (Cokely, 1981;1982). Furthermore, Cokely's study reveals that 59.9% of those surveyed had attended college for a bachelor's degree. Another

31.7% continued on to earn a master's or doctorate degree (1981; 1982). However, of the degrees earned, only 2.4% of the majors or minors indicated were in a related field such as Educational Interpreting, Interpreter Training, or Sign Language Studies (Cokely, 1981;1982).

Cokely's studies also included pertinent data regarding the interpreters' families. Of those surveyed, 41.3% were first-born children, and 40.0% were youngest children (Cokely, 1981;1982). These data conclude that 58.7% of the interpreters had older siblings and 60% had younger siblings. Perhaps a more significant finding regarding families is that 5% of the respondents were parents of d/Deaf children, 38.6% of the respondents had d/Deaf or hard-of-hearing mothers, and 37.9% had d/Deaf or hard-of-hearing fathers. There were no data on the number of interpreters overall with one or more d/Deaf parents. Deafness in siblings was also documented as 5% having d/Deaf sisters, 4.4% having d/Deaf brothers, and 29.4% having one or more extended family members who were d/Deaf. The report also found data on the hearing status of the grandparents of the interpreters surveyed; 11.6% reported having a d/Deaf or hard-of-hearing grandmother, and 9.1% reported having a d/Deaf or hard-of-hearing grandfather (Cokely, 1981;1982).

A few more findings from Cokely's study of particular interest to this study pertain to ASL use and interaction with the Deaf community. The mean length of signing for interpreters with Deaf parents was 35.6 years, while those interpreters with hearing parents had been signing for a mean length of 8.9 years. Interpreters with Deaf parents took an average of 2.5 courses in Sign Language, whereas those with hearing parents took an average of 3.6 courses (Cokely, 1981;1982). It is significant to point out that the study did not define the courses as Signed English, ASL, or a variety of each (or pidgin English [PSE]/contact language). This distinction is important as Cokely's study continues to describe performance levels with expressive or

receptive ASL. More than one third reported feeling as if they had limited competence in ASL with 67.3% of interpreters self-reporting native-like skills in expressed ASL and 57.1% in receptive. This compared to the interpreters with hearing parents who rated themselves with only 10.3% being native-like in ASL expression and 7.1% in receptive ASL skills (Cokely, 1981;1982). These findings seem inconsistent with the reported frequency of social interaction with the Deaf community. Whereas the proficiency in ASL was generally reported as low, the social interaction with the Deaf community (conversing in ASL) was reported high with 73.2% reporting socialization at least weekly.

The final category within Cokely's (1981;1982) demographic study of interpreters to be used for the purpose of this current study is the topic of volunteeering. It is important to note that the data for this study were collected in 1980, 39 years ago. It is also significant that this study took place prior to the passing of the ADA (1990). The findings of this study report that interpreters spent a mean of 11.9 years doing volunteer interpreting work. Interpreters with Deaf parents spent 20.9 years volunteering, and interpreters with hearing parents spent 5.5 years. Three individuals reported never having been paid for their interpreting services. The various settings for volunteer services included educational classrooms at 16.9%, medical at 31.3%, legal at 15.0%, counseling/psychological at 15.0%, and telephone at 75.6% (Cokely, 1981;1982). Of the 160 participants surveyed, 17% worked part-time, and 17% worked full-time. Other fields represented included educator at 10.7%, educational administrator at 6.9%, interpreter trainer at 8.2%, interpreter coordinator at 13.8%, social worker at 1.9%, religious worker at .6%, secretarial at 3.1%, industry/business at 2.5%, self-employed at 7.5%, and other at 10.7% (Cokely, 1981;1982).

Current demographics of interpreters. There are currently 16,000 members within the world's largest body of professional ASL/English interpreters (RID, n.d.). This number is considerably larger than the approximate 3,000 members reported back in 1986 (Frishberg, 1986). With growth more than five times in size, one would expect the demographics to be considerably more diverse, but that does not seem to be the case. In 2017, just 37 years after Cokely's demographic study, the profession was made up of more than half female (54%) (note that this number is not representative of the entire population since fewer than half of those reporting did not provide self-identity for gender) (RID, 2017). Of those reporting, 8.4% identified as male, 87.15% were Euro-American/White, hand dominance was not assessed, and the number of BA/BS degrees was not available (RID, 2017). It may also be significant to note that the report on certifications includes 7,071 individuals holding their Certificate of Interpretation and/or the Certificate of Transliteration (RID, 2017). The testing for this certification ran from 1988 until 2008 (20 years). The current certification test, National Interpreting Certificate, began in 2008 and as of 2017 (nine years) there were 4,901 holders (RID, 2017).

Mental Health of Professional Interpreters

A search of mental health and professional ASL interpreters might yield a good number of articles and studies regarding the act of interpreting in the mental health setting. However, a dearth of reseach exists on the actual status and influencers on the personal mental health of professional ASL interpreters. The purpose of this study is to examine various factors that may impact the mental health of an interpreter. There are several theories and models surrounding the skillset and cognitions of producing an effective interpretation when moving between two languages, but this portion of the study will review exisitng theories and hypotheses pertaining to

the interpreter as a person and the impact the profession of interpreting may have on their mental well-being.

   Internal influence. Issues that affect an individual and their well-being can come from a variety of areas. One such area is the influencers that come from within the person themselves.

   Personality. Although long ignored in the profession of ASL/English interpreting, the personalities of those within and entering the field are now being studied. The individual's characteristics are being examined for both predicted success in the profession and risk factors for issues such as vicarious trauma and PTSD. This new-found realization comes after years of transition from a mindset of interpreters serving as "machines" and attempts of remaining "neutral" (or "invisible") when in the interpreting environment (Humphrey & Alcorn, 2007). An extensive study was conducted with a sample of 2,193 interpreters from 38 countries in which personality and disposition were evaluated as potential predictors for interpreter performance. It was concluded that personality factors were indeed predictive of interpreting effectiveness (Bontempo et al., 2014). This seems to have previously been addressed by the innate understanding of the gatekeepers from the Deaf community, but this study and others like it bring empirical evidence to light.

   Upon further examination, other issues regarding personality and interpreting seem to be tied to their success. There seems to be a strong correlation between abstract reasoning and the educational interpreter's success in particular (Seal, 2004). When given translation tasks, certain personality types did indeed seem to perform better than others. Those with the "S" or "Sensing" preference, for example, seemed to be the weakest, whereas Introverted Intuitive Feeling Judgers (INFJs) seemed to perform the best (Hubscher-Davidson, 2009). As noted here, many of these studies were conducted several years ago and yet the subject of personality

remains absent on any entry-level exam into interpreting programs or on assessments for certification or qualification (Thorn, 2018).

Emotions. Professional interpreters must convey the meaning and intent of the speaker, including the expression of intended emotions (Patrie & DawnSignPress, 2009). Many topics may be emotional or even in direct opposition to the feelings of the interpreter. Nevertheless, the interpreter must put their feelings aside and portray the speaker's emotions. In other words, interpreters must manage their own emotions as well as the emotions of the people they are interpreting for (Hsieh & Nicodemus, 2015). Furthermore, the ASL/English interpreter portrays the emotions of the speaker in the first person. The interpreter delivers both simultaneous interpreting and consecutive interpreting by taking on the speaker's modality and addresses the intended audience as if they were delivering the message firsthand. These expressed emotions, which are shared in the first person, may have a psychological impact on the interpreter (Hsieh & Nicodemus, 2015).

Self-Care. Along with the increased corporate dialogue surrounding matters of vicarious trauma, there seems to be an increase in discussion as well as workshops pertaining to self-care. Discussions and articles surround issues such as diet, sleep, exercise, and interconnectedness (Hall, 2018). Perhaps additional studies could address self-talk in a positive manner. *Self-talk*, although misunderstood by many, is the manner in which an individual can communicate with themselves out loud or internally. The act can be therapeutic with issues such as problem-solving, planning, and motivation (Geurts, 2018). *Metalinguistic awareness* is another term for the self-talk that may occur internally or externally. With professional interpreters this phenomenon is most often applied to the interpretation process, but also occurs with talk directed towards self-deprecation as well as encouragement (Maddux & Nicodemus, 2016).

External influence. Issues that affect an individual do not always come from within. Aspects that may impact professional interpreters' well-being can also come from outside, and are often job-related circumstances.

Physical challenges. Every profession is fraught with unique challenges and ASL/English interpreting is no exception. Interpreters must address issues concerning physical as well as coginitive issues within the profession. One study examined the prevalence of pain and musculoskeletal disorders among freelance and salaried interpreters with 38% of those surveyed (318) reporting various musculoskeletal discomfort (Fischer & Woodcock, 2012). Of those surveyed, 25% reported their pain levels to be a 3 or higher on a 10-point scale (with 10 being the highest). Carpal Tunnel Syndrome is a familiar term to most veteran interpreters with a reported incidence of the malady more than five times that of the general population (Smith et al., 2000). However, the physical aspects of the profession may not be the most difficult. Interpreters often say that it is the cognitive processes that prove to be the most challenging, but there seems to be a great deal of research indicating that mental health issues may be one of the most significant hurdles.

Even though Carpal Tunnel Syndrome is noted as a familiar occurrence among professional ASL/ English interpreters, evidence indicates that the physical motions of signing may not be the only trigger for the disorder. Stress and perfectionism may be a leading cause of not only Carpal Tunnel Syndrome but also a litany of other physical and mental manifestations (Schwenke, 2015). Everything from burnout to physical stamina, emotional stability, and endurance may fall under this category. Adding to the stress which may contribute to physical maladies are issues pertaining to race and ethnicity. These issues may influence the stress factor for minorities navigating the inter and intrapersonal aspects of interpreting (Obasi, 2013).

Research also indicates a distinct increase in stress when simultaneously interpreting from a foreign language (Chernigovskaya et al., 2016).

One study examined the potential stress that may take place as a result of the speed of the speaker (Korpal, 2016). Even though the research was conducted with the use of spoken language, the same principles can apply to a manual language. Through the use of two speakers, one at an average pace, and another at a faster pace, the interpreter's heartrate and blood pressure were monitored. Researchers theorized that the added pressure of speed would tax the interpreter's cognitions to the point of impacting their physicality. The outcome did indeed indicate that the speed of the faster presenter resulted in an elevated heartrate (but not a rise in blood pressure) for the interpreter (Korpal, 2016). These results seem to support, at least in part, the Gile's Effort Model which is referenced often in the popular Effective Interpreting Series. One textbook in the series goes into more detail about the model:

> Gile suggests that in the process of learning interpretation, certain tasks are better presented before others and that there is limited capacity for specific aspects of the interpretation process and that this capacity must be greater than what the interpretation process requires. (Patrie, 2000, p. 1)

Could this demand to process more than one has the capacity for result in stress? Could this stress manifest itself in more ways than just an elevated heartrate?

Regulations. As with many professions, interpreters adhere to a code of ethics. The Code of Professional Conduct (CPC), adopted in 2005, was the result of a collaboration between RID and the National Association of the Deaf (NAD) (Humphrey & Alcorn, 2007). Within the premise lies seven tenets, each with its own unique subtenets. The tenets are as follows:

1. Interpreters adhere to standards of confidential communication.

2. Interpreters possess the professional skills and knowledge required for the specific interpreting situations.

3. Interpreters conduct themselves in a manner appropriate to the specific interpreting situation.

4. Interpreters demonstrate respect for consumers.

5. Interpreters demonstrate respect for colleagues, interns, and students of the profession.

6. Interpreters maintain ethical business practices.

7. Interpreters engage in professional development. (RID, n.d.)

The tenets may seem innocuous, but tenet one has incurred much blame for causing great stress. At face value, the need to adhere to the principle of confidentiality can be clearly understood. Interpreters have the privilege of accessibility to situations and settings one would not normally be able to access. A private counseling session or a discussion regarding legal matters with a lawyer are some examples. From a Deaf person's perspective, an additional person would not need to be present if an interpreter were not needed. However, this also means the interpreter may not have the opportunity to effectively process what took place during the interpreting session. In situations where the d/Deaf or hard-of-hearing client experiences something traumatic such as the death of a baby, the interpreter may find it challenging to decompress from being present during the distressing event. In order to comply with tenet one of the CPC, the interpreter cannot disclose the events or even the fact that they were present at such an event with friends, family, or any other means of support. Furthermore, the use of first person in the interpreted product may impact the interpreter on a deeper level, potentially resulting in transference (Darroch & Dempsey, 2016). Therefore, a tenet that was once devised

to protect those involved in the interpreting process may, in fact, have become the very thing that takes a toll on the interpreter's mental well-being.

   Setting: Video remote interpreting. Video Relay Services (VRS) and/or Video Remote Interpreting (VRI) is one of the newest settings in the field of interpreting. Although the setting is not an occupational hazard itself, the sites have had a unique impact on those practicing this delivery mode. VRS is a federally funded service which provides telephone access between deaf and hearing individuals through the use of technology. A caller (hearing) places a call by either calling a service directly, or by using a unique eight-digit phone number. An interpreter will answer with spoken English. The interpreter then connects the d/Deaf individual via video and interprets the discourse between the hearing/English individual and the d/Deaf person. The interpreter and deaf individual can see each other, but the hearing caller only hears the interpreter. With VRS the interpreter is usually located in a dedicated office space with a headset and a video screen. VRI differs in that it is not federally funded and is not a phone call, but uses the same technology for interpreting remotely. The laws, regulations, and technology that have made this possible have opened many doors of accessibility for the Deaf community.

   In a more traditional environment, such as out in the community, an interpreter can interact with the deaf client, build rapport, assess language modality, learn more about the topic prior to conveying the message, and have some control over the dialogue. However, in the VRS/VRI setting almost everything is automated and the interpreters report having inadequate time to prepare for each call. They also find the remote sites make it difficult to establish rapport with their clients (Napier et al., 2017). The new-found freedom that deaf individuals have experienced with the ability to have equal access to phone calls often has had the opposite result for the interpreters. Interpreters report feeling inadequately trained for the task (Napier et al.,

2017). Furthermore, issues of an uneducated public continue to exasperate the process with frequent hang-ups and confused callers, frustrating the deaf caller and the interpreter alike (Napier et al., 2017).

    Setting: Educational interpreting. Arguably one of the top areas of employment for ASL/English interpreters in the United States is educational interpreting. Second only to vocational training, educational settings for the deaf have been one of the earliest institutions to be protected by law (Humphrey & Alcorn, 2007). With the passing of laws such as Public Law 94-142, also known as the All Handicapped Children Act of 1975, with the impactful Least Restrictive Environment (LRE) principle, and other similar legislation, it is no longer assumed that Deaf children will attend residential schools for the d/Deaf (Ayantoye & Luckner, 2016). Mainstreaming, or more currently referred to as *inclusion* programs, have increased markedly over the years. The increase of d/Deaf students in public schools has, of course, resulted in an increase in interpreters in the schools. But the demands on the interpreters have also increased and not just by the number of the students. Educational interpreters' responsibilities often go beyond facilitating communication or interpreting lectures. Many teachers depend on the interpreter to add depth to language learning and to act as a type of liaison between teacher and student. For example, one teacher stated that "the interpreter really helped me to understand where [the student is] coming from and whether she understands, her past success and her past failures, and where I can help to smooth that journey" (Ayantoye & Luckner, 2016, para. 39).

    The educational setting has drastically changed over the years. With a significant increase in *d/Deaf plus* students, meaning those individuals with additional medical, physical, emotional, cognitive, educational, or social challenges, more specialized training is required for educational interpreters and yet they are not receiving that training (Cogen & Cokely, 2015).

Interpreters often find themselves in rural areas without proper training or support. This high-risk, high-stakes area of specialization requires a highly trained professional. Unfortunately, due to insufficient funding, many positions are low paying and attract underqualified practitioners leaving both the student and the interpreter frustrated (Cogen & Cokely, 2015).

    Added responsibilities. The use of "Self," or the personhood of an interpreter in the interpreting process, has increased since the passing of the Affordable Care Act in 2014. Interpreters are now encouraged to be a part of the team in mental health settings (Dubus, 2016). After years of being told to "remain neutral" or "invisible," interpreters are now asked to become part of the process; this may seem to conflict with their previously understood role (Humphrey & Alcorn, 2007). Furthermore, educational interpreters now have more demands placed upon them with students who have additional needs, and ever-evolving technology such as cochlear implants (Cogen & Cokely, 2015). Can these added responsibilities (often without added training) impact the mental health of the interpreter?

    Vicarious Trauma. Anecdotally, the subject of vicarious trauma has risen significantly as a point of discussion and concern among ASL/English intepreters. It is unknown if the subject has been an increased topic within the general population. However, the topic has clearly risen because of the personal experience of many interpreters. Article after article and workshop after workshop are filled with reports of these professionals experiencing trauma, but not their own. *Vicarious Trauma* can be defined as having symptoms of PTSD as a result of being exposed to someone else's trauma (Finklestein et al., 2015). The term *Vicarious Trauma* is not found within the pages of the *DSM-5* (APA, 2013). However, as per its definition, it could be placed under the category of Trauma- and Stressor-Related Disorders, more specifically under the category of PTSD.

The *DSM-5* defines *PTSD* through a series of diagnositc criteria beginning with the phrase, "Exposure to…" (p. 271, 2013) and later including, "Witnessing, in person, the event(s) as it occurred to others" (p. 271, 2013). These parameters certainly seem to apply to the experiences that so many interpreters have shared. Furthermore, studies have shown that the use of first-person narrative, such as that expressed by professional ASL/English interpreters, may have a similar impact on the individual as if they had spoken (or signed) the words themselves and therefore potentially having a similar traumatic impact (Bontempo & Malcolm, 2012). Issues such as exposure to varied and sometimes violent content, a required adherence to strict confidentiality, and a lack of resources for debriefing all add to the challenges of the professional ASL/English interpreter (Macdonald, 2015). Most would agree that the working interpreter has the potential to experience vicarious trauma or PTSD, but are there other factors that may also impact the potential for this mental health issue?

Despite the ongoing reports of interpreters and vicarious trauma experiences, few, if any, reports of diagnoses for vicarious trauma or PTSD seem to be documented. Developers created a specific instrument developed to measure vicarious trauma in social workers. This 17-item valid instrument evaluates a specific group of people who are experiencing what the researchers refer to as, "Secondary Traumatic Stress" (Bride et al., 2004). The instrument uses factors such as physical manifestations of the mental stressors and outward behaviors that reflect the inward trauma. The instrument was specifically developed for social workers, but may be adaptable for the professional interpreter. There are other diagnostic tools which may be helpful in assessing the contributing factors that could put a person at an increased risk for vicarious trauma or PTSD. For example, Emotional Regulators (ER) as well as Alexithymia have been considered to be a possible predictor of someone who may be susceptible to PTSD (Lilly & Valdez, 2012).

Summary

A dearth of scholarly research exists concerning the mental health issues of professional ASL/English interpreters despite the influx of narration. Despite the avid discussion and the apparent desperate need, there does not appear to be much, if any, data on how interpreters compare to the general population of the United States. Given the clear research regarding the potential for vicarious trauma, PTSD, and the specific job challenges which put the interpreter's mental health at risk, a clearly devised intervention and/or prevention plan of action may be in order. However, without any actual data pertaining to the currrent status of the mental health of intepreters, such a plan would be based on speculation only.

Diagnoses of mental health and corresponding prescriptions for psychiatric medications are markedly on the rise (Stolzer, 2016). Is this rise a direct correlation to the perceived rise in mental health needs of interpreters? Could this be the reason for the increase in workshop offerings and topics of discussion surrounding issues related to the mental health of professional interpreters? If this were the case, there would still be a need to address the issue with these professionals, but no more than it would need to be addressed with other professionals.

With the growth in the profession of ASL/English interpreting, the demographic of those entering the field has changed. Previously the field was comprised of those who had an existing relationship with a d/Deaf person (Humphrey & Alcorn, 2007). Now, with the growth in the field, the new requirement of a college degree in order to become certified (RID, n.d.), and the increase in opportunites for education, the field is drawing from the same pool as any profession. Studies have shown that certain personality types are drawn to certain occupational preferences (Muscatello et al., 2017). Furthermore, studies indicate a link between personality type and certain mental health issues (Lo, 2017). If a high percentage of ASL/English interpreters with a

certain personality type could be determined, then a correlation may be drawn between interpreters and a risk for certain mental health issues.

Certain jobs put their workers at risk for health and mental health issues. There is a correlation between the stress of a job and an increase in incidents of mental illness and cardiovascular disease (Wang et al., 2014). Therefore, it would stand to reason that there may be a correlation between the work of an ASL/English interpreter and issues with mental health if in fact the job is considered to be a stressful one. Do the external factors of the professional interpreter create strain and anxiety which may lead to mental health issues? Are these issues unique to the profession? If the external factors are combined with internal considerations such as personality, does this increase the risk of mental illness?

CHAPTER THREE: METHODS

Overview

The following section proposes a methodology for conducting research regarding the current mental health status of professional ASL/English interpreters in the United States. Current professional literature and workshops seem to reflect a growing need for self-care as a result of the perceived increased risk for vicarious trauma. ASL/English interpreters are talking about issues surrounding mental health and yet, there is a dearth of research to bring credibility to the conversation. One would be hard-pressed to find information regarding the current state of mental health in the interpreting population and the factors that influence that state. The quantitative study outlined within these pages explored the current mental health state (specifically measuring anxiety, secondary trauma, and depression) of currently working professional interpreters, as well as the internal and external influences which impact their well-being. The variable-centered K-Means cluster analysis technique was utilized to group the personalities and conduct a comparison with the participants' mental health. Clusters were based on personality (internal effect) assessed through the BFI (John & Srivastava, 1999; John et al., 1991). Stressors include occupational stressors (external effect) assessed through a questionnaire developed by the researcher, the Secondary Traumatic Stress Scale (Bride et al., 2004), and the Depression, Anxiety, and Stress Scales (DASS) (Corcoran & Fischer, 2013) to determine a correlation with the state of the interpreter's mental health.

Research Design

Following Institutional Review Board (IRB) approval, self-selecting participants completed a researcher-prepared survey regarding their current mental health status, their personality and/or temperament, and work-related hazards and/or stressors. Through the use of a

quantitative, variable-centered, cluster analysis research design (Heppner, Wampold, Owen, Wang, & Thompson, 2016, pp. 287, 295, 306-307), variables and natural groupings were evaluated to determine if interpreters had a higher incidence of anxiety, secondary traumatic stress, and/or depression as a result of occupational hazards. Furthermore, a correlation between interpreter personality traits and a higher risk for anxiety and depression was assessed. This particular design was chosen in order to provide an objective approach to what could be a sensitive topic, mental health. Through the use of different variables in everyday life, various correlations were drawn. Although this study is limited to presenting correlations and not causation, future predictions may be made in order to prevent recurring situations that could negatively impact an interpreter. Furthermore, this correlative study can highlight different variables that may be addressed in interpreter education programs to reduce the risk of issues pertaining to mental health.

Research Questions

Recent articles and training workshops for ASL/English interpreters frequently include concerns about potential vicarious trauma (Bontempo & Malcolm, 2012; Harvey, 2001; Knodel, 2018), and an increased need for self-care (Hall, 2018; Maddux & Nicodemus, 2016). Furthermore, the topic of personality type being an indicator of interpreter effectiveness has been raised (Bontempo et al., 2014; Lehka-Paul & Whyatt, 2016). The implication of these "hot topics" is that professional ASL/English interpreters are at an increased risk for issues pertaining to mental wellness, and yet there does not seem to be any empirical evidence to this. Few, if any, studies can be found. Therefore, the three research questions for this study are as follows:

RQ1: What are the personality profiles of professional ASL/English interpreters?

RQ2: How are the personality profiles of professional ASL/English interpreters related to mental health, specifically as it pertains to depression, anxiety, and secondary stress?

RQ3: How does secondary stress change the relationship between personality and mental health in professional ASL/English interpreters?

Hypotheses

The alternate hypotheses for this study are:

Ha1: There are personality trait combinations common to ASL/English interpreters.

Ha2: Professional ASL/English interpreters with certain personality profiles are more prone to anxiety, depression, and/or stress issues.

Ha3: Occupationally related external influencing factors such as environment and task demands of the professional ASL/English interpreter are correlated to elevated anxiety and/or secondary traumatic stress levels in these individuals.

Participants and Setting

This study was a quantitative K-Means correlational research design in which the participants were a self-selecting (aka volunteer) convenience sample of individuals affiliated with the RID or certified by RID, and/or are working full-time as a professional ASL/English interpreter. There are currently approximately 16,000 members within the RID, the world's largest body of professional ASL/English interpreters (RID, n.d.), therefore a sample size of 108 was drawn. Qualified participants had to be a full-time interpreter and 18 years of age or older. Participants were recruited via RID conferences, other interpreter related conferences such as Terp Expo, social media, the RID research site, and the Conference of Interpreter Trainers (CIT), an organization born at a 1978 RID conference (Ball, 2013). Snowball sampling was also used as the study's link was posted and shared with others. Besides the consent form, all other data

collected did not include the participant's name or any other type of identification that would tie the information to the participant. Each survey packet (questionnaire, BFI, STSS, and DASS) was collected digitally without identifying markers.

Instrumentation

Questionnaire. The participants were given a researcher-generated self-disclosing survey (see Appendix C). The instrument was a means to collect data such as demographics and self-reporting, but was not a formal assessment tool itself. Following the completion of a separate consent form, the participant completed the initial data collection with information such as age, interpreter qualification level (i.e., state qualified or nationally certified), years of work in the field, type of interpreting (e.g., educational, corporate, video relay, etc.).

Some of the questions that were included in the second section are as follows:

"Do you feel your level of stress has increased based on your job?"

"Do you have any existing mental health diagnoses?"

"Do you ever feel traumatized by the content of the message you are conveying and/or by the environment in which you have been working?"

"Do you ever feel the adherence to the NAD-RID Code of Professional Conduct (CPC) (NAD-RID, 2005) impacts your mental health, if so in what way?"

The survey had a total of 18 questions.

The BFI. The Big Five Inventory (BFI), an instrument developed to assess the five domains of personality via a lexicalized inventory similar to that of the NEO-PI, was used to assess the participants' personalities. This instrument used a 44-factor questionnaire (John & Srivastava, 1999). The inventory is based on the Big Five Inventory, which refers to five specific domains now commonly accepted by psychologists. Whereas there are numerous ways

to describe and assess personality, this instrument utilizes a lexicalization of describers which results in five common domains. The five domains are openness, conscientiousness, extraversion (sometimes spelled extroversion), agreeableness, and neuroticism (Goldberg, 1990). Although comparable to the NEO, the BFI has the benefit of brevity. It is estimated to take only five minutes to administer (John, Robinson, & Pervin, 2011, p. 137). The coefficient alpha reliability for the BFI was impressive with a mean of alpha .83 (John et al., 2011, p. 131).

DASS. Developed in 1979, this 42-item instrument measures depression, anxiety, and stress (Corcoran & Fischer, 2013). Through the use of 14 primary symptoms of the emotional states, the DASS assesses the individual's status. Numerous studies have determined this tool to be valid as well as excellent in reliablity (a sample of 437 determined internal consistency of .96 for depression, .89 for anxiety, and .93 for stress) (Corcoran & Fischer, 2013).

STSS. In addition to the survey, the BFI, and the DASS, a stress scale was given. The scale used was developed for social workers and is referred to as the Secondary Traumatic Stress Scale or STSS. This scale is reliable, convergent, discriminately valid, and factorially valid (Bride et al., 2004). This brief 17-item scale was developed to help address the growing issue of vicarious trauma in social workers by measuring intrusion, avoidance, and arousal symptoms. The items are listed with a corresponding scale in which the participant responds with never, rarely, occasionally, often, or very often to questions such as, "I felt emotionally numb," and, "I thought about my work with clients when I didn't intend to" (Bride et al., 2004).

Procedures

A recruitment letter was sent out to prospective participants. Interpreters were recruited electronically via social media, the RID research site, RID and interpreter conferences, the CIT website, and with additional snowball samples. Each participant was given a consent form prior

to completing the survey. The consent form outlined the purpose of the study, described the nature of the questions, informed the participant that the survey was completely voluntary, and offered the opportunity to access the results of the study. This process, as well as the survey packet, was all conducted electronically via the domain of Qualtrics.com.

Upon completion of the consent form, the site prompted the participants to complete the researcher-generated questionnaire, followed by the next prompt to complete the personality trait assessment, the BFI. The next component of the electronic packet was the brief 17-question evaluation for stress, the STSS, followed by the DASS, which is the 21-question survey regarding depression, anxiety, and stress. Each participant was completely anonymous as the data were collected digitally without any identifying markers. Participants had the option to participate in a drawing for one of three Amazon gift cards. Individuals interested in participating in the drawing were sent to a separate site at the completion of the research survey. At this seperate site they were able to share their contact information without jeopardizing the anonymity of the core survey.

Data Analysis

Variables

Independent variable. The independent variable is the personality profile or cluster of personality traits of the professional ASL/English interpreter as measured by the BFI.

Dependent variable. There are two dependent variables in this model. The first variable consists of issues pertaining to mental health, specifically anxiety and depression. The second dependent variable is the level of stress and secondary stress reported by the professional ASL/English interpreters.

Analysis

The statistical analysis began by examining the correlation between participating interpreters' personality traits. Through the use of SPSS software, the BFI scores were analyzed through the use of the K-Means cluster. The created clusters, based on personality traits, established the independent variables to which the dependent variables were compared. Each cluster was examined for correlations between the occupational stressors, measured by the frequency data of the researcher's questionnaire, the stress levels of the STSS, and the depression, anxiety, and stress levels of the DASS. A model demonstrating this process can be represented with a simplified version of Andrew Hayes's model for the hypotheses (Hayes, 2018) (see Figure 1 below). Since this was determining a statistical difference across two or more groups, an analysis of variance (ANOVA) was used (Warner, 2013).

Figure 1. Simplified Hayes model 1. This model is a visual representation of one factor influencing another. In this study, H_01 and H_02 are symbolized with the "X" representing a cluster set of interpreters' personality profiles, which influences the interpreter's mental health ("Y"). In H_03 , the "X" represents the interpreters' personality traits (cluster), and "Y" represents external factors related to interpreting. Adapted from Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York; London: The Guilford Press, p. 584. Copyright 2018 by The Guilford Press.

H $_0$1: The null hypothesis postulates there are no personality trait combination(s) common to ASL/English interpreters. A cluster analysis of the BFI was used for this initial examination. The participants' BFI, or personality traits, were put into subgroups in order to determine certain structure or commonality of personality profiles. This method also helped to create a simpler structure for the ongoing analysis (Warner, 2013).

H $_0$2: This second null hypothesis theorizes that professional ASL/English interpreters with certain personality profiles are not more prone to anxiety, depression, and/or stress issues. For this theory, and the next, a simplified version of Hayes's model was used to depict the flow of the study (see Figure 1 above). The "X" represents a cluster set of interpreters' personality profiles, which influences the interpreters' mental health ("Y"). Data collected from the questionnaire and DASS were assessed for the presence of the mental health issues. A comparison between clusters was made.

H $_0$3: The third null hypothesis states that occupationally related external influencing factors, such as environment and task demands of the professional ASL/English interpreter, are not correlated to elevated anxiety and/or secondary traumatic stress levels in professional

interpreters. This could also be represented with the modified model (see Figure 1). "X" represents the interpreters' personality traits (cluster), and "Y" represents external factors related to interpreting. Stress levels and secondary stress levels were evaluated through components of the questionnaire and the STSS.

Statistical Validity

The data needed to be analyzed correctly in order to determine if there was a relationship between the variables. If the researcher's process had a large degree of uncertainty about her results then the study would have been considered invalid (Heppner et al., 2016). In order to avoid invalidating the study certain precautions were put in place.

Internal. In order to maintain the integrity of the study itself and to avoid procedural errors between the variables, or internal validity (Heppner et al., 2016), this study needed to develop consistent methods with a sufficient size sample of 108. One particular threat would have been the use of self-disclosing of mental illness(es) on the survey portion of the study. However, if the self-reporting was consistent with the self-reporting used in data collection for the general population, then the study would remain internally valid.

External. The generalization of the findings of the research must be carefully evaluated in order to avoid problems with external validation (Heppner et al., 2016). One threat in particular is that of settings. ASL/English interpreters work in a variety of settings and therefore the generalization of the findings needs to be considered for each of these settings.

Construct. One threat to the validity of the construct of this study would have been the participants' reacting to the experimental situation. In other words, if the participants assumed they knew what type of response the instrument was seeking, then they may have intentionally given the answer they perceived as most desired. Conversely, other participants may have

offered the answer they felt was most out of line with the perceived expectation in an act of rebellion (Heppner et al., 2016).

Type I/Type II Errors. Both reporting a relationship when there is none (Type I), or reporting no relationship when there is one (Type II), threaten the validity of the study (Heppner et al., 2016). The potential threat for each of these errors can be greatly reduced by strengthening the methodology of the study and examining each of the potential threats. One area in particular for this study was the risk of technical difficulties with the website being used and that of the internet service for the participants. If the method of collecting sample size is insufficient there is a greater risk for Type II error and statistical invalidity.

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Summary

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To summarize, the research conducted to assess the potential for correlation between personality and mental health, as well as external factors such as secondary stress and their impact on the professional ASL/English interpreter, took place in a digital format. Through the recruitment of participants via social media, professional websites, and in-person at professional conferences, a population sample of 108 was collected. The participants responded to a survey comprised of a questionnaire and three instruments. The first of these was the researcher-generated questionnaire at which time background information such as length in the profession, type of interpreting being done as a professional, and history of mental health was collected. This was followed by the BFI, the DASS, and the STSS. Participation was voluntary and individuals were recruited from all over the United States. Findings were then assessed for correlations based on the K-Means cluster.

CHAPTER FOUR: FINDINGS

Overview

The following chapter will present the findings from this nationwide (U.S.) study. The purpose of this study is to assess the mental health status (current state) of professional ASL/English interpreters currently working in the field by evaluating the state of their anxiety, secondary stress, and depression levels as well as significant personality traits. The study examines the current state of mental health in professional interpreters within the US, as well as external stressors on these professionals which may result in higher levels of stress. One hundred forty-five interpreters responded to a four-part survey comprised of a researcher's questionnaire, the BFI, the STSS, and the DASS. Descriptive statistics of the utilization of the K-Means cluster to analyze the BFI results were outlined, followed by a compilation of data bringing evidence to all three hypotheses.

Descriptive Statistics

Demographically the participants represent professional interpreters within the United States. Of the 145 responses received, 108 were valid surveys (no missing values on the survey), creating a total participant sample size (N) of 108. Through the use of a K-Means cluster analysis of the BFI, two clear clusters emerged with Cluster A (n) 57, and Cluster B (n) 51. Table 1 (see Table 1) reflects the findings for each of the Big Five (BFI) traits for each cluster. Cluster A reflects a mean of 2.83 for extraversion, 3.70 for agreeableness, 3.92 for conscientiousness, 3.40 for neuroticism, and 3.65 for openness. Cluster B shows a mean of 3.92 for extraversion, 4.33 for agreeableness, 4.13 for conscientiousness, 2.34 for neuroticism, and 3.84 for openness.

Table 1

Mean of Interpreter Cluster Centers

BFI	Cluster	
	A	*B*
Extraversion	2.83	3.92
Agreeableness	3.70	4.33
Conscientiousness	3.92	4.13
Neuroticism	3.40	2.34
Openness	3.65	3.84

Data drawn from the questionnaire provide demographic information for the interpreters represented in each cluster. Table 2, a frequency table, outlines the interpreters within each cluster (see Table 2). Cluster A is comprised of 33% of the interpreters who are within the 26-34 age range, 22% within the 35-44 age range, and 14% in the 45-57 age range. Cluster B has 21% in the 26-34 age range, 14% in the 35-44 range, and 27% in the 45-57 age range. Cluster A represents 93% female and 5.3% male, while Cluster B has 96.1% female and 3.9% male. The large majority of interpreters in Cluster A are right-handed at 93%; 94.1% of Cluster B are right-handed. Both clusters have a low percentage of interpreters with Deaf and/or hard-of-hearing parents with Cluster A having 3.5%, and Cluster B having 5.9%. There is more variance between clusters with credentials. Cluster A has 42.1% of interpreters who hold an Educational Interpreter Performance Assessment (EIPA) credential, 21.1% with a national certification (National Certification, Hearing: NIC, CI, CT, CSC, IC, TC, NAD), zero with a National Certification, Deaf (RSC, CDI), 15.8% state qualified, and 17.5% categorized as other. Conversely, Cluster B has 35.3% of interpreters who hold an EIPA credential, 35.3% with a national certification (National Certification, Hearing: NIC, CI, CT, CSC, IC, TC, NAD), 2.0% with a National Certification, Deaf (RSC, CDI), 7.8% state qualified, and 17.6% categorized as other. Years of experience, or number of years working as a professional interpreter resulted in

Cluster A with 21% with 0-2 years of experience, 26% with 3-8 years of experience, and 30% with 9-14 years of experience. Cluster B had 17% with 0-2 years of experience, 27% with 3-8 years of experience, and 12% with 9-14 years of experience. The final category within the demographics is the primary work setting with both Cluster A and B having the significantly highest number representing educational interpreters with 71.9% and 52.9% respectively. Other settings include VRS with Cluster A having 10.5% and Cluster B having 7.8%. Freelance interpreters within Cluster A is 8.8% and Cluster B with 19.6%. Cluster A did not have any legal interpreters, but Cluster B had 3.9%. The medical setting was represented with 3.5% for Cluster A and 5.9% for Cluster B. The final category of other included 5.3% for Cluster A and 9.8% for Cluster B.

Table 2

Interpreter Demographics by Percentage (top three responses per category)

Characteristic	Cluster A	Cluster B
Age Range		
26-34	33%	21%
35-44	22%	14%
45-54	14%	27%
Gender		
Female	93%	96.1%
Male	5.3%	3.9%
Dominant Hand Use		
Right	93%	94.1%
Left	7%	5.9%
Years of Experience		
(3.25 Mean)		
0-2 years	21%	17%
3-8 years	26%	27%
9-14 years	30%	12%
15-20 years	11%	14%
21-26 years	7%	14%
27 years+	5%	16%
One or Both Parents Deaf/HoH	3.5%	5.9%
Interpreting Credentials		
EIPA	42.1%	35.3%
National RID/NAD	21.1%	35.3%
CDI	0	2.0%
State Qualified	15.8%	7.8%
Other	17.5%	17.6%
Frequency of Social Interaction with Deaf Community (current)		
Daily	22.8%	27.5%
Several times/week	15.8%	19.6%
A couple of times/week	10.5%	13.7%
Frequency of Social Interaction with Deaf Community (prior to interpreting)		
Daily	10.5%	13.7%
Several times/week	15.7%	23.5%
A couple of times/month	31.5%	13.7%
Primary Work Setting		
Educational	71.9%	52.9%
VRS	10.5%	7.8%
Freelance	8.8%	19.6%
Legal	-	3.9%
Medical	3.5%	5.9%
Other	5.3%	9.8%

Note. HoH = hard of hearing

After processing the data for the DASS and the STSS for each cluster, the following results were compiled for Cluster A (see Table 3). With Cluster A being $n = 57$, the DASS-Depression had a mean of 25.72 (*SD* 10.01), DASS-Anxiety had a mean of 20.99 (*SD* 6.38), and the DASS-Stress had a mean of 28.28 (*SD* 8.90). The STSS results were documented STSS-Intrusion having a mean of 11.26 (*SD* 3.86), STSS-Avoidance having a mean of 17.43 (*SD* 5.02), and STSS-Arousal having a mean of 12.47 (*SD* 4.12).
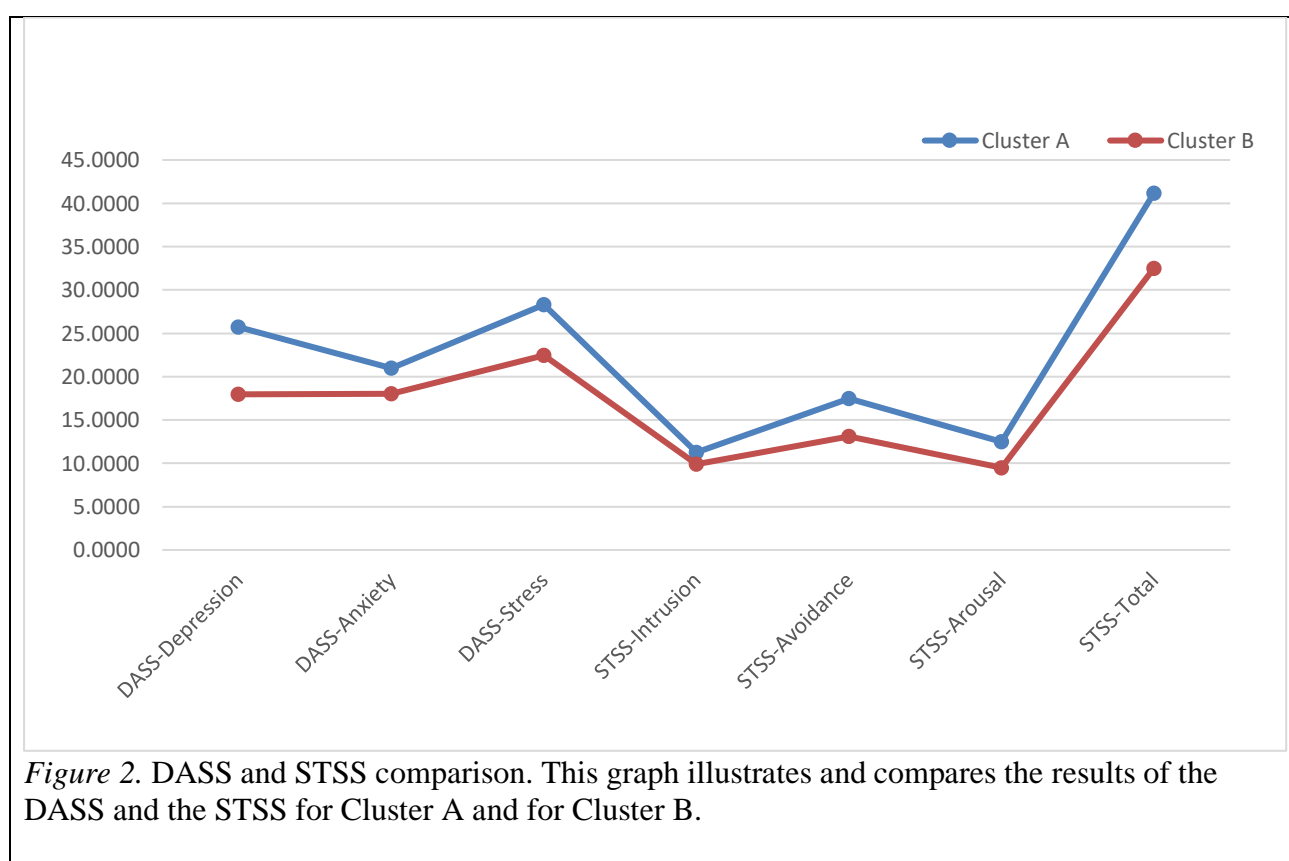
Table 3

DASS and STSS
Cluster A (*n* = 57)

	M	*SD*
DASS		
Depression	25.71	10.01
Anxiety	20.98	6.38
Stress	28.28	8.90
STSS		
Intrusion	11.26	3.86
Avoidance	17.43	5.02
Arousal	12.47	4.12
STSS Total	41.17	11.45

DASS and STSS
Cluster B (*n* = 51)

	M	*SD*
DASS		
Depression	17.96	6.24
Anxiety	18.03	5.83
Stress	22.43	7.92
STSS		
Intrusion	9.90	3.42
Avoidance	13.11	5.00
Arousal	9.49	3.17
STSS Total	32.50	10.38

Note. DASS = Depression Anxiety and Stress Scale; STSS = Secondary Traumatic Stress Scale

The DASS and the STSS compilations for Cluster B (see Table 3), with $n = 51$, are as follows: The DASS-Depression had a mean of 17.96 (*SD* 6.24), the DASS-Anxiety had a mean of 18.03 (*SD* 5.83), and the DASS-Stress had a mean of 22.43 (*SD* 7.92). The STSS were also assessed to include STSS-Intrusion having a mean of 9.90 (*SD* 3.42), STSS-Avoidance having a mean of 13.11 (*SD* 5.00), and STSS-Arousal having a mean of 9.49 (*SD* 3.17).

The variance between Clusters A and B within the different categories of the DASS and the STSS are shown in Figure 2.

Figure 2. DASS and STSS comparison. This graph illustrates and compares the results of the DASS and the STSS for Cluster A and for Cluster B.

In addition to data collected from the researcher's questionnaire for demographics, the BFI for personality traits and K-Means cluster analysis, the STSS for secondary stress, and the DASS for information regarding depression, anxiety, and stress, further questions from the questionnaire addressed matters concerning mental health. The following questions were asked

of participants in a self-reporting format (see Table 4). "To what extent, if any, do you feel your level of stress is impacted by your job (interpreting)?" Those in Cluster A responded with 22.8% significantly, 49.15 moderately, and 15.8% felt their stress level was slightly impacted by their job. Cluster B responded with 19.6% significantly, 49.0% moderately, and 25.5% felt their stress level was slightly impacted by their job. The next question asked, "If you have a professionally diagnosed mental health issue, what category does your diagnosis fall under?" Cluster A reported 19.3% had a diagnosis of anxiety, 15.8% depression, and 49.1% reported no mental illness. Cluster B reported that 15.7% had a diagnosis of anxiety, 5.9% depression, and 64.7% had no mental illness. The third question inquired the following, "If you have NOT been diagnosed with a mental health issue, but feel you could be, what category do you feel your issue would fall under?" Cluster A responded with 40.4% anxiety, 8.8% depression, and 19.3% with no mental illness. Cluster B demonstrated 15.8% anxiety, 10.5% depression, and 65.8% no mental illness. This question was followed by, "How often do you feel negatively impacted by the content of the message you are conveying and/or by the environment/situation in which you have been working? Cluster A reported 22.8% said they seldom felt negatively impacted, 22.8% felt they were impacted weekly, and 24.6% expressed feeling impacted occasionally. Cluster B reported 27.5% said they seldom felt negatively impacted, 17.6% felt they were impacted weekly, and 37.3% expressed feeling impacted occasionally. The question, "Do you ever feel the adherence to the NAD-RID Code of Professional Conduct (CPC) impacts your mental health, if so in what way?" received a response from Cluster A with 19.3% who replied, Yes, CPC Tenet #1; 19.3% stated the idea of being found out of compliance with any of the tenets is a source of stress; and 15.8% said they do not feel adherence to the NAD-RID CPC impacts their mental health in any way. Cluster B responded with 17.6% who replied, Yes, CPC Tenet #1; 9.8%

stated the idea of being found out of compliance with any of the tenets is a source of stress; and

29.4% said they do not feel adherence to the NAD-RID CPC impacts their mental health in any

way. To the final question being addressed here in the findings, "Do you feel you were

adequately trained and vetted prior to starting work as an interpreter?" Cluster A participants

responded with 19.3% saying Yes, extensively; 36.8% saying Yes, but they would have liked to

have had more training; and 22.8% saying they had some training, but not enough. Cluster B

responded to the final question with 25.5% saying Yes, extensively; 49.0% saying Yes, but they

would have liked to have had more training; and 13.7% saying they had some training, but not

enough.

Table 4

Researcher Questions Regarding Mental Health (self-reporting)

	Cluster A	Cluster B
To what extent, if any, do you feel your level of stress is impacted by your job (interpreting)?		
Significantly	22.8%	19.6%
Moderately	49.1%	49.0%
Slightly	15.8%	25.5%
If you have a professionally diagnosed mental health issue, what category does your diagnosis fall under?		
Anxiety	19.3%	15.7%
Depression	15.8%	5.9%
No mental illness	49.1%	64.7%
If you have NOT been diagnosed with a mental health issue, but feel you could be, what category do you feel your issue would fall under?		
Anxiety	40.4%	15.8%
Depression	8.8%	10.5%
No mental illness	19.3%	65.8%

How often do you feel negatively impacted by the content of the message you are conveying and/or by the environment/situation in which you have been working?		
Seldom	22.8%	27.5%
Weekly	22.8%	17.6%
Occasionally	24.6%	37.3%
Do you ever feel the adherence to the NAD-RID Code of Professional Conduct (CPC) impacts your mental health, if so in what way?		
I never thought about this before	29.8%	19.6%
Yes, CPC Tenet #1	19.3%	17.6%
The idea of being found out of compliance with any of the tenets is a source of stress for me	19.3%	9.8%
I do not feel adherence to the NAD-RID CPC impacts my mental health in anyway	15.8%	29.4%
Do you feel you were adequately trained and vetted prior to starting work as an interpreter?		
Yes, extensively	19.3%	25.5%
Yes, but I would have liked to have had more training	36.8%	49.0%
I had some, but not enough	22.8%	13.7%

Results

Hypothesis 1

The descriptive statistics outlined earlier in this chapter bring evidence to the rejection of

the null hypothesis (H_0) and support to the first alternative hypothesis (H_a) which states that there

are personality trait combinations common to ASL/English interpreters. The criterion for

judging between H_0 and H_a is based on the sample data contained within the K-Means cluster

analysis. The K-Means cluster analysis was based on the BFI only. Each of the five personality traits was analyzed individually prior to the cluster analysis with the following results. Extraversion had a mean score of 26.90, a variance of 55.60, and a standard deviation of 7.45 for the N of 8. The Cronbach's Alpha, based on the standardized items, was 0.87. Agreeableness had a mean score of 26.90, a variance of 55.60, and a standard deviation of 7.45 for the N of 8. The Cronbach's Alpha, based on the standard items, was 0.82 with N being 9. Conscientiousness had a mean score of 36.12, a variance of 24.968, and a standard deviation of 4.997 for N of 9. The Cronbach's Alpha, based on standard items, was 0.744 for N of 9. Neuroticism had a mean score of 23.14, a variance of 39.542, and a standard deviation of 6.288 for N of 8. The Cronbach's Alpha, based on standard items, was 0.824 for N of 8. And openness had a mean score of 37.47, a variance of 27.041, and a standard deviation of 5.200 for N of 10. The Cronbach's Alpha, based on the standard items, was 0.718 for N of 10.

The K-Means analysis demonstrated two clear clusters (see also: Tables 1 and 2). These clusters are based on the means of the various categories and gathering these means in "clusters" of the next nearest mean. If the personality traits were more diverse, and the interpreters had fewer traits in common, then more clusters would have appeared, or a scattering would have been reflected. Therefore, the findings are in support of the alternate hypothesis for the first hypothesis in this research.

Hypothesis 2

The second alternate hypothesis states that professional ASL/English interpreters with certain personality profiles are more prone to anxiety, depression, and/or stress issues. Previous research supports the principle that personality may be correlated with mental health. Specifically one study conducted by Lamers et al. (2012) concluded that individuals with high

scores in agreeableness and extraversion are less prone to mental health issues. The data

provided by the K-Means cluster analysis show that one cluster indicates interpreters with higher

scores in agreeableness and extraversion as compared to the other cluster. That same cluster also

portrays lower scores in anxiety and depression as assessed by the DASS and STSS. Cluster A

indicates a score of 3.70 in agreeableness, while Cluster B indicates a score of 4.33. Cluster A

indicates a score of 2.83 in extraversion, while Cluster B indicates a score of 3.92. Therefore,

Cluster B has an overall higher score in these two significant personality traits. Cluster B also

projects lower scores in anxiety, depression, and stress as assessed by the DASS and the STSS.

Cluster A had a mean score of 20.98 in anxiety on the DASS, while Cluster B had a mean score

of 18.03 in anxiety on the DASS. Cluster A scored a mean of 25.71 in depression (DASS), and

Cluster B scored a mean of 17.96. Cluster A had a mean of 28.28 (DASS) for stress, and Cluster

B tallied a 22.43. Therefore, findings indicate in support of the alternate hypothesis that

postulates professional ASL/English interpreters with certain personality profiles are more prone

to anxiety, depression, and/or stress issues.

Hypothesis 3

The final alternate hypothesis postulates that occupationally related external influencing

factors, such as environment and task demands of the professional ASL/English interpreter, are

correlated to elevated anxiety and/or secondary traumatic stress levels in these individuals. The

instrument used to examine this postulation was the researcher's questionnaire in combination

with the groupings established by the K-Means cluster (see also: Table 4), in particular, Question

13, which asks, "To what extent, if any, do you feel your level of stress is impacted by your job

(interpreting)?" Interpreters in Cluster A responded with 22.8% significantly, 49.1%

moderately, and 15.8% slightly. Participants in Cluster B responded with 19.6% significantly,

49.0% moderately, and 25.5% slightly. Question 16 asks, "How often do you feel negatively impacted by the content of the message you are conveying and/or by the environment/situation in which you have been working?" Cluster A participants answered with 22.8% saying seldom, 22.8% saying weekly, and 24.6% saying occasionally. Cluster B interpreters answered with 27.5% saying seldom, 17.6% saying weekly, and 37.3% saying occassionally. Question 17, the third and final question pertaining specifically to this hypothesis, posed the following: "Do you ever feel adherence to the NAD-RID Code of Professional Conduct (CPC) impacts your mental health, if so in what way?" Responses from Cluster A included 19.3% felt CPC Tenet #1, confidentiality, restricted their ability to debrief and/or process difficult and/or stressful assignments; 19.3% found the idea of being found out of compliance with any of the tenets to be a source of stress; 15.8% said they did not feel adherence to the NAD-RID CPC impacted their mental health in any way. Responses from Cluster B included 17.6% felt CPC Tenet #1, confidentiality, restricted their ability to debrief and/or process difficult and/or stressful assignments; 9.8% found the idea of being found out of compliance with any of the tenets to be a source of stress; 29.4% said they did not feel adherence to the NAD-RID CPC impacted their mental health in any way. Whereas Cluster B's responses consistently reported scores of lower stress, this hypothesis is examining overall stress levels in interpreters. Therefore, combined scores for Question 13 indicate 42.4% feel their level of stress is significantly impacted by their job of interpreting. Question 16 reveals that 61.9% occasionally feel negatively impacted by the content of the message they are conveying and/or by the environment/situation in which they have been working. And Question 17 specifies 45.2% that do not feel adherence to the NAD-RID CPC impacts their mental health in any way (not an indicator of stress). Furthermore, the scores on the STSS and the DASS for stress need to be considered (see also: Table 5). The

scores for the DASS-Stress is a mean of 28.28 for Cluster A, and a mean of 22.43 for Cluster B.

The total score for the STSS with Cluster A is a mean of 41.17 and Cluster B is a mean of 32.50.

This would indicate that more than half of the working interpreters experience elevated levels of

anxiety and secondary stress. Based on this data, the findings support the third alternate

hypothesis.

Table 5

DASS and STSS Combined Scores for Stress

Test	Cluster	*n*	*M*	*SD*	*SEM*
DASS-Stress	A	57	28.28	8.90	1.17
	B	51	22.43	7.92	1.10
STSS-Intrusion	A	57	11.26	3.86	0.51
	B	51	9.90	3.42	0.47
STSS-Avoidance	A	57	17.43	5.02	0.66
	B	51	13.11	5.00	0.70
STSS-Avoidance	A	57	12.47	4.12	0.54
	B	51	9.49	3.17	0.44
STSS-Total	A	57	41.17	11.45	1.51
	B	51	32.50	10.38	1.45

Note. DASS = Depression Anxiety and Stress Scale; STSS = Secondary Traumatic Stress Scale

Summary

Professional ASL/English interpreting is a relatively young field with its brief history

dotted with research and theories pertaining to the process and/or cognitions of interpreting.

More recently, however, attention has turned to the interpreters themselves. Questions are being

asked about the impact this profession may have on an individual's well-being. The majority of

the concern and questions seem to be based on speculation or anecdotal observations. The

purpose of this study was to assess the current state of the mental health of professional

interpreters as it pertains to anxiety, secondary stress, and depression. An added dimension of

significant personality traits was examined. The findings support all three alternate hypotheses pertaining to personality trait combinations, certain personalities being prone to mental health issues, and elevated work-related anxiety and stress levels among professional interpreters.

CHAPTER FIVE: CONCLUSION

Overview

With the completion of the data analysis, the summary of the findings, and the presentation of the results for the study, this chapter applies those findings in a pragmatic fashion. Within the following pages a detailed discussion ties the study to the earlier literature review and examines the results of the study as applied to the research questions and hypotheses. Early on during this project, a purpose statement was shared. The next few pages contain a dialogue of how this study did or did not meet the goals of assessment. The chapter concludes with implications, limitations, and recommendations.

Discussion

The purpose of this study, to assess the mental health status (current state) of professional ASL/English interpreters currently working in the field by evaluating the state of their anxiety, secondary stress, and depression levels as well as significant personality traits, revealed the satisfaction of three research questions. The first of these questions was the supposition of elevated levels of anxiety, depression, and secondary stress within the profession of ASL/English interpreting. This, in part, was spawned by anecdotal observations of changes in interpreters from an earlier generation and to that of interpreters of the upcoming, younger generation. With what seemed like a great deal of novel dialogue and attention being given to the mental health of interpreters, it would seem there would be current, empirical data about the current status of these professionals. There was not. One possible conclusion for the influx of conversations would be the marked increase in the diagnosis of mental health and corresponding prescriptions overall for the general population (Stolzer, 2016). Unfortunately, with no baseline for previous levels of anxiety, depression, and secondary stress for professional interpreters, a comparison

cannot be made. However, it is the hope that this study may become the baseline for future studies. One perspective that can be assessed, however, is the history of interpreting and the individuals who were previously drawn to the field. Historically, the first interpreters were family members, clergy, or teachers of the d/Deaf (Humphrey & Alcorn, 2007). As the field grew, the Deaf community continued to serve as gatekeepers for the interpreting field by screening qualified interpreters based on their skills and their attitudes toward the Deaf (Hunt & Nicodemus, 2014; Miner, 2018). This informal screening process also included an element of trustworthiness (Cokely, 2009). As time progressed, and the field exponentially increased, the use of Deaf gatekeepers waned (Hunt & Nicodemus, 2014; Miner, 2018). Without this screening process, is it possible that people with differing attitudes, skillsets, and temperaments are now entering the field? The research conducted here indicates only 3.5% of Cluster A and 5.9% of Cluster B have (one or both) Deaf parents. In contrast, Cokely's research found that 38.6% of the respondents had Deaf or hard-of-hearing mothers, and 37.9% had Deaf or hard-of-hearing fathers (1981;1982).

Another point to consider when discussing Research Question 1 is the current level of stress in the field today. This was reviewed in more depth with the second research question, but it is significant to point out here that stress related to employment has been directly correlated to an increased incidence of mental illness and cardiovascular disease (Wang et al., 2014). Cokely's research indicated a large number of interpreting hours were spent volunteering with a mean of 11.9 years, with interpreters of Deaf parents spending 20.9 years volunteering, and interpreters with hearing parents spending 5.5 years (Cokely, 1981;1982). This study was conducted in 1980, 39 years ago. Today interpreters are more and more dependent on their skillset for a livelihood, and with that comes an increased level of stress. There is more training

available now than in the past for interpreters (Ball, 2013), but with the surge of individuals

seeking credentials in this field, screening and support from the Deaf community have

diminished (Hunt & Nicodemus, 2014; Miner, 2018). Has this combination of events resulted in

the higher levels of stress as indicated by this study's result of 28.28% (Cluster A), and 22.43%

(Cluster B)? Cluster B also reveals a slightly older age demographic than that in Cluster A.

Cluster B reports an anxiety level of 18.03% whereas Cluster A has a reported anxiety level of

20.98%. It would appear that the older group has more interaction with the Deaf community

(27.5% report daily interaction, 19.6% report several times a week, and 13.7% report a couple of

times a week, compared to Cluster A with 22.8%, 15.8%, and 10.5%) and more years of

experience (a mean of 3.25 years as compared to Cluster A's mean of 2.72 years). It is important

to point out that these are not significant spreads; however, reviewing the data regarding past

interaction with the Deaf community reveals more information.

The second research question addressed within this research project inquired the

following: Do professional ASL/English interpreters have common strengths and/or weaknesses

among the Big Five personality traits and if so, do the combinations of traits have a higher

incidence of issues with mental health? This question was the catalyst for using the K-Means

cluster analysis. The clustering analysis allowed the researcher to see and compare different

personality traits within the interpreting professionals. Running the data resulted in two distinct

clusters, thus establishing an affirmative response to the first part of the question (see also: Table

1). These clusters provide a manner in which to objectively observe the centroids of each cluster

and compare the proximities from one center point to the center of the other. In other words, the

clusters were based only on the BFI so the comparison is between different personality

groupings. The most notable difference between the clusters is the distance in proximities

between the centroids for neuroticism (see Figure 3). Cluster A presents with a mean of 3.40 and Cluster B with 2.34. This trait is important to consider as research indicates that personality may be a predictor for psychopathology (Thalmayer, 2018). Two other significant traits are agreeableness and extraversion. Cluster A had a mean of 3.70 and 2.83 respectively. Cluster B scored 4.33 and 3.92. Evidence has been found that these two traits, agreeableness and extraversion, are uniquely tied to positive mental health (Lamers et al., 2012). This would seem to be supported here with Cluster B having higher scores in agreeableness and extraversion and lower scores in neuroticism.

A visual comparison between the two different clusters can be seen in Figure 3, K-Means Cluster Comparison (see: Figure 3). In this table with 1=Extraversion, 2=Agreeableness, 3=Conscientiousness, 4=Neuroticism, and 5=Openness, the differences between the two different clusters is more apparent with a significant split between the two groups at the point of neuroticism. At this point there is a mean difference of 1.06. Another split occurs with extraversion with a mean difference of 1.09. A less significant, but still notable split is the mean difference of 0.63 which occurs with agreeableness.
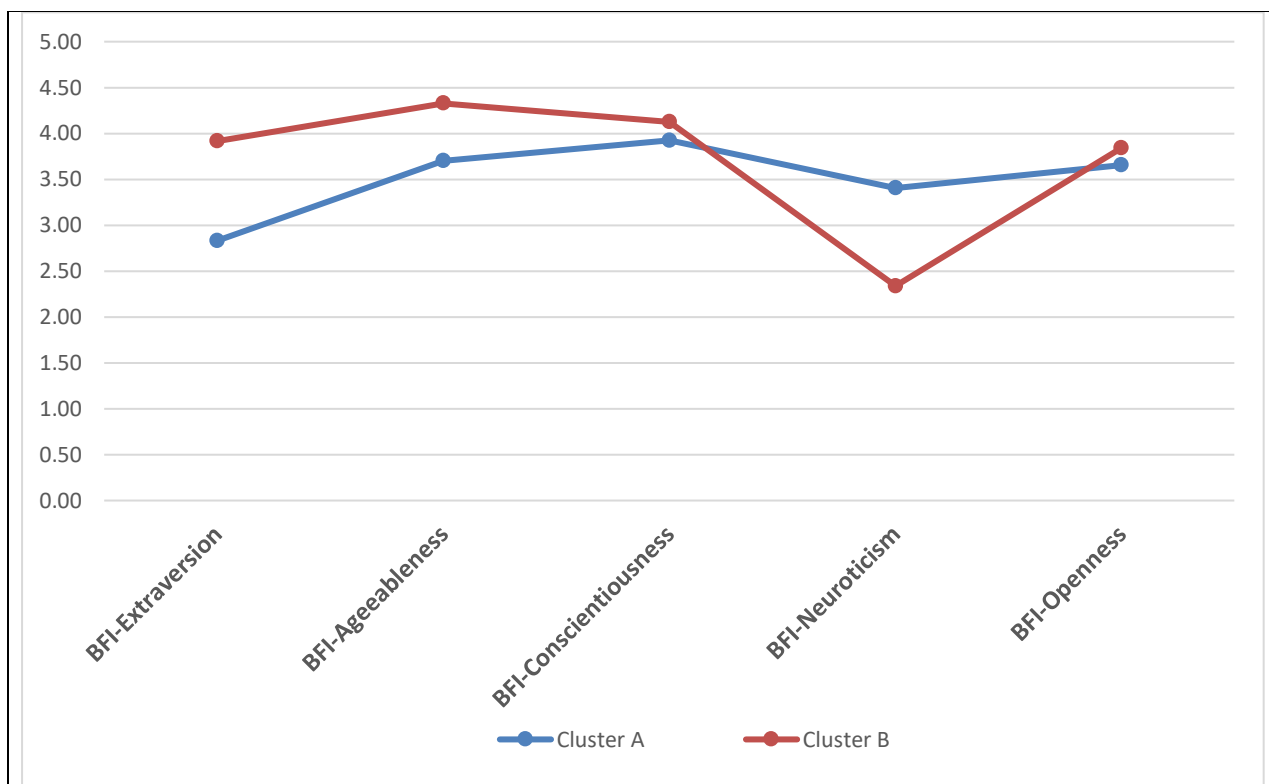
Figure 3. K-Means cluster BFI comparison. This graph illustrates and compares the five personality traits of the BFI for Clusters A and B.

Beyond the propensity toward positive health or a predictor of psychopathy, personality traits may be able to reveal trends in the interpreting profession. With evidence supporting the principle that certain personality types are drawn to certain occupational preferences (Muscatello et al., 2017), and with the knowledge that individuals entering the field of interpreting are now doing so from a more traditional, academic perspective (as opposed to from a response to family needs or a desire to help/volunteer as previously discussed), it is beneficial to examine which traits are being drawn to the field. One older study by Jo Anna Liedel (1996) based on the MBTI revealed that out of 96 educational interpreters, most of their personalities were Extraverted, Intuitive, Feeling, Perceivers (ENFP). The MBTI is an assessment based on a forced dichotomy to determine a person's "preference" in that area (CAPT, 2001), while the BFI is an instrument

based on a linguistic taxonomy of personality traits (John & Srivastava, 1999). Since these two

instruments are not measuring the same thing, they cannot be used for an equal comparison.

However, an analogy can be made between Liedel's study and the findings here on the BFI.

Liedel's study reported interpreters as generally outgoing, open to new experiences, and

conscientious, with a propensity to make value-driven decisions. Cluster B seems to hold a

commonality with Liedel's study, whereas Cluster A seems less so. Through the BFI, it was

found that the interpreters surveyed (41/57 of which were educational interpreters) for Cluster A

had a mean of 2.83 for extraversion, whereas the interpreters in Cluster B (with 27/51

educational interpreters) had a mean of 3.92 for extraversion. This same cluster, B, had higher

levels of openness to new experiences, and higher levels of conscientiousness than its

counterpart, Cluster A. In other words, one group had more in common with Liedel's findings

than the other. This distinction between the two clusters also bears noting because previous

research has found that U.S. interpreters with higher scores in self-esteem, openness to new

experiences, and conscientiousness are predicted to be have higher levels of competency in the

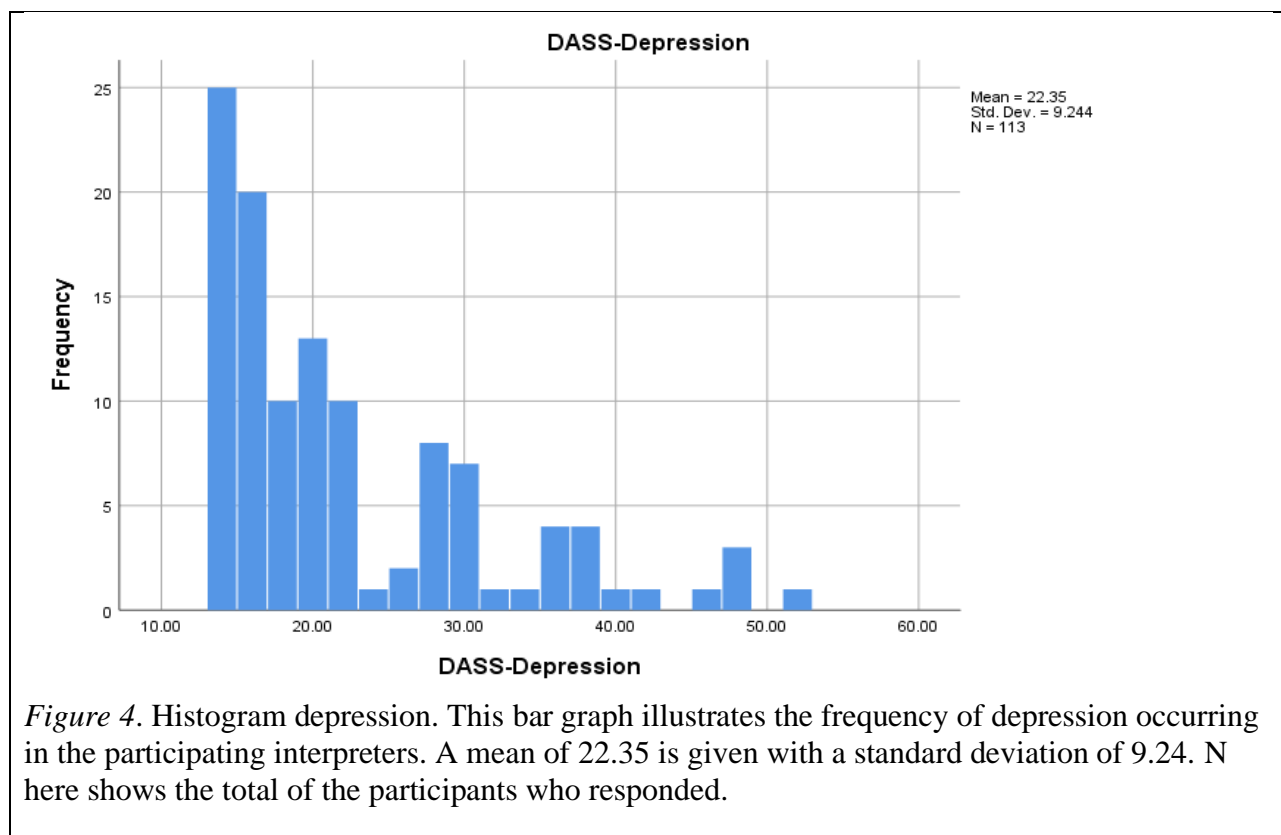profession (Bontempo et al., 2014).

The final research question asks if there is a correlation between the reported external

influences of ASL/English interpreters, such as environment and task demands, and an increased

risk for mental health issues. This question is raised in part due to the obvious, observable

changes in the profession of interpreting over its brief 56 (approximate) years of existence. What

started as a handful of volunteers, adhering to a "helper" philosophy (Humphrey & Alcorn,

2007), has grown to a few thousand (Frishberg, 1986), and then to over 16,000 full-time, in-

demand, highly specialized practitioners (RID, n.d.). Growth that rapid must have had an impact

on the interpreters. Until recently, research seemed to be focused on the process, but this study

uncovers demands that are impacting the mental health of the interpreters.

Many suppositions on the mental health of interpreters have been based on comparisons

with other fields, or anecdotal observations. One such topic has been that of vicarious trauma.

One article addressed how the use of first-person language when interpreting could have

psychological ramifications (Hsieh & Nicodemus, 2015), and another article expressed the idea

that shared linguistic expression could result in vicarious trauma (Bontempo & Malcolm, 2012).

Yet a third source expressed that the use of first person in the interpreted product could result in

transference (Darroch & Dempsey, 2016). This study directly asked the question of interpreters.

When asked, "How often do you feel negatively impacted by the content of the message you are

conveying and/or by the environment/situation in which you have been working?", 22.8% of

Cluster A reported seldom, and 24.6% reported occasionally. Cluster B reported 27.5% seldom

and 37.3% occasionally. These numbers seem to support the idea of secondary trauma, but do

not seem to support the amount of outside research and in-field dialogue surrounding the topic.

A second question, "To what extent, if any, do you feel your level of stress is impacted by your

job?", seemed to receive more significant scores with Cluster A reporting 22.8% significantly

and 49.1% moderately. Cluster B reported 19.6% significantly and 49.0% moderately. The two

clusters seem to be similar on this point. Surprisingly, the question concerning the stress level

related to the CPC resulted in low scores for both clusters with Cluster A having 19.3% stating

that Tenet #1 created stress, 19.3% saying the idea of being caught out of compliance with the

CPC caused stress, and 15.8% stating the CPC did not impact their mental health. Cluster B had

even lower numbers with 17.6% feeling Tenet #1 contributed to stress, 9.8% saying the idea of

being caught out of compliance with the CPC caused stress, and 29.4% saying they did not feel
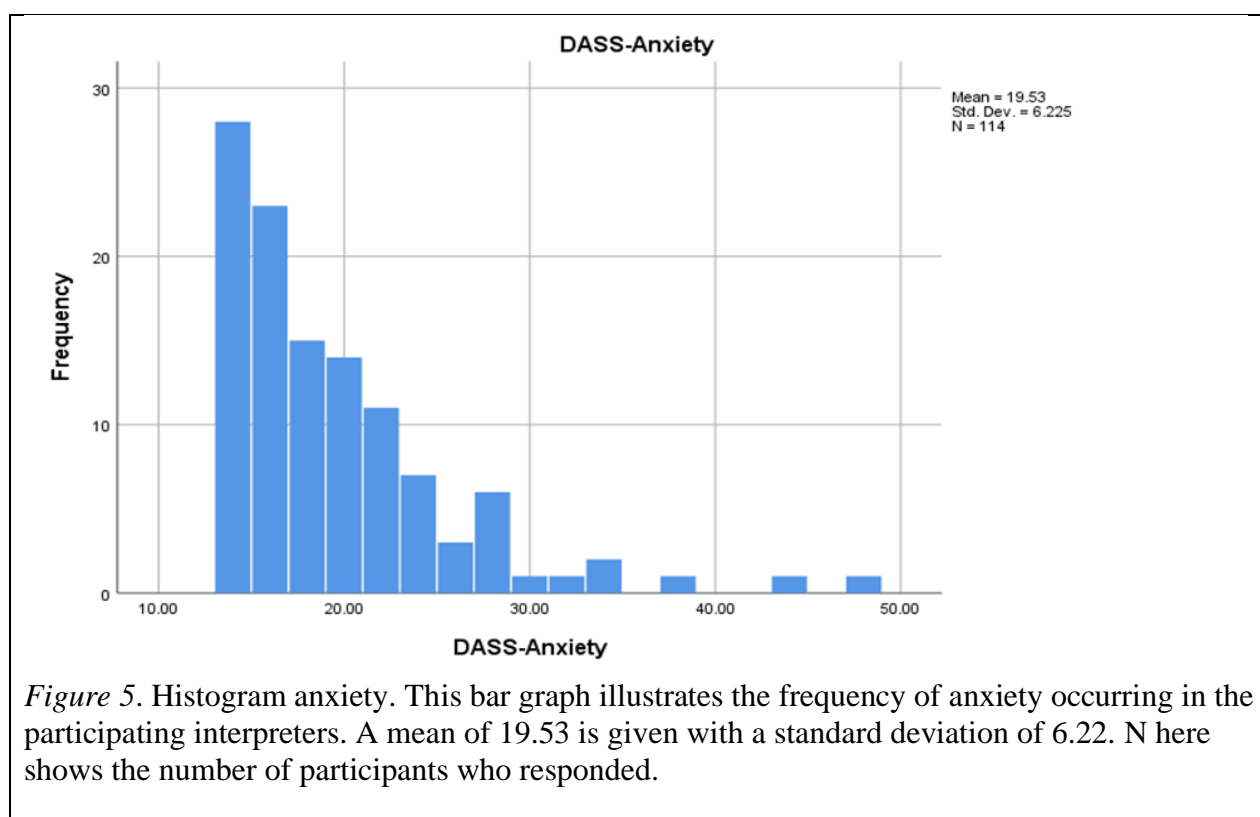
the CPC impacted their stress levels. While these findings may mildly support the premise of interpreters experiencing vicarious trauma and/or secondary stress, the STSS revealed more significant data. The STSS total mean for Cluster A was 41.17, and for Cluster B the total was 32.50. This indicated that almost half of the interpreters in Cluster A are experiencing secondary stress.

This research also addressed the third research question pertaining to external influences of interpreters, in terms of anxiety and depression. Whereas no previous research was found to establish a baseline for anxiety and depression in interpreters during the early years, the findings within this study were clear and substantial. Interpreters surveyed had a combined (both clusters) mean of 19.93 in anxiety and 22.35 in depression (see Figures 4 and 5).

DASS-Depression

Figure 4. Histogram depression. This bar graph illustrates the frequency of depression occurring in the participating interpreters. A mean of 22.35 is given with a standard deviation of 9.24. N here shows the total of the participants who responded.

The field of interpreting does not seem to have a baseline for this information. No known studies on levels of anxiety and depression in professional interpreters have previously been done. Therefore, this discussion cannot include a comparison between early interpreters and current interpreters. However, the bigger picture may include a comparison with current interpreters with the stated levels of anxiety and depression and the levels of the general population in the United States. According to The Anxiety and Depression Association of America (ADAA), it is estimated that 18% of the population experience anxiety and 6.7% of adults experience an episode of depression (n.d.). With this data compared to the information found here, interpreters are above the average. One potential reason for the elevated levels in interpreters could be the increased risk of vicarious trauma. Another postulation for this trend pertains to the individuals with higher levels of certain personality traits who are prone to mental

health issues being drawn to the profession. Still another possibility is the impact of working in

an oppressive environment and witnessing firsthand the discrimination of d/Deaf people, also

known as *audism* (Bauman, 2004). Interpreters themselves may inadvertently cause audism

despite their best efforts to maintain neutrality (Metzger, 2011). Even interpreters who are aware

of the circumstance may find themselves in an unavoidable situation where those around them

are exhibiting audism. The use of English itself is tied to the ability to hear and therefore implies

superiority (Bauman, 2004). Navigating these types of environments, especially for individuals

with limited previous interaction with the Deaf, may impact the individual's mental well-being.

Figure 5. Histogram anxiety. This bar graph illustrates the frequency of anxiety occurring in the participating interpreters. A mean of 19.53 is given with a standard deviation of 6.22. N here shows the number of participants who responded.

Implications

The implications of this study are far reaching. As previously mentioned, there does not

seem to a baseline for the status of the mental health of ASL/English interpreters. It is the hope

and aspiration for this work to become that starting point. With a foundation, other studies may be able to delve deeper into this important aspect of the field. With a better understanding of the levels of anxiety, depression, and stress with professional interpreters, counselors will be better equipped to address the needs of the individuals and develop appropriate treatment plans. Furthermore, professional workshops and interpreter education programs can develop programs to educate the population about the risks, prevention, and mitigation of secondary stress.

Another possible source of the elevated levels of stress, anxiety, and depression in professional interpreting may be their working environment. Previous research indicates educational interpreters have additional responsibilities and demands, such as navigating the ever-changing technology of cochlear implants (Cogen & Cokely, 2015). This could contribute to the higher stress levels expressed in this study. One may also postulate that the added tensions surrounding Deaf rights, oppression, and audism could be a contributor, as well as hearing people in the work environment navigating those same issues. Therefore, findings both in this study and others advocate for the examination of the working environment for interpreters in order to improve the mental health for these professionals.

A recurring topic within these pages is that of the Deaf community and their previous role as gatekeepers to the profession (Hunt & Nicodemus, 2014; Miner, 2018). Over time with the growth of the field, and the rise of interpreter education programs, these grassroots screening processes have diminished. Could this omission have impacted the mental health of interpreters? It could be postulated that the bypassing of this process has resulted in less-skilled individuals entering the field. However, findings here reveal that the majority of interpreters stated that, although they wish they had more training, they did feel they were adequately educated. Perhaps the decline of gatekeepers has resulted in a lack of a different type of experience. Is it feasible

that that impact is on the real-life experience novice interpreters have (or in this case do not have) with Deaf individuals and the Deaf community? Earlier research resulted in a recommendation for interpreting students to obtain knowledge of the Deaf community, as well as knowledge and appreciation of human behavior as it pertains to sociocultural systems, and yet it seems void in the current interpreter education programs (Ball, 2013). Findings here indicate a marked reduction of interpreters with Deaf parent(s), as well as a reduction in social interaction prior to entering the field. Inexperience in navigating this second culture could contribute to the added stress and anxiety. While these findings are not definitive, they are significant enough that the implications should not be ignored.

Following a different thread of gatekeepers would be support. Earlier research (but still post-gatekeepers) reports that many interpreters feel frustrated and unsupported (Cogen & Cokely, 2015). Gatekeepers often filled the gap between learning to interpret and novice interpreting. Without gatekeepers, where does that support come from? This question is beyond the scope of this study, but bears mentioning here under implications. Could effective screening prior to entering interpreting programs be helpful? Could mentoring relationships provide the support individuals need to transition into the field with minimized levels of stress and anxiety? The findings here are a good launching point in this direction.

The overriding focal point of this study has been personality traits. One might ask why it matters what type of personality an interpreter has, but empirical evidence supports the premise that it does indeed matter. One aspect in which personality may come into play would be as a predictor. An earlier work by Bontempo et al., found that U.S. interpreters rated self-esteem, openness to new experiences, and conscientiousness as top predictors of competency in the profession (Bontempo et al., 2014). The findings within these pages support the same findings in

terms of mental health. Interpreters with higher scores in agreeableness and extraversion have fewer reported issues with mental health. These findings could be paramount in establishing a screening for students entering an interpreting program. The screening would not need to be an entrance requirement, but rather a source of information to help both the student and instructor(s) better understand their unique needs and challenges so they may be best prepared for what lies ahead of them.

A final note in regard to implications of this study is one of spirituality and worldview. Individuals serving as interpreters during the early years had a reputation for being strong and independent (Frishberg, 1986), but were also immersed in the Deaf community. The gatekeepers of the Deaf community vetted and screened the prospective interpreters, but also supported them in relationships in order to deem them trustworthy (Cokely, 2009). In other words, interpreters worked hard to hone their craft, to develop their God-given gifts and talents (Rom. 12:6-8), but they did not do it alone. They had the support of others, in order to serve others. Is it possible that the increased frequency of interpreters with anxiety, depression, and stress is a result of a disconnect from one another? The establishment of one's personality and traits is not separate from the talents in which they are gifted. God creates the individual (Jer. 1:5), but also gives gifts to the person based on who they are (Rom. 12:6). During the era of the gatekeepers, it was understood that not everyone could be an interpreter. This is not to say that some people had more worth than others, because everyone had (and has) a gift, of equal value, with which they could (and can) serve others (1 Cor. 12:1-6). Elements of this current study imply that individuals may be entering the field for reasons other than their gifting. They may be working on skill development for reasons other than to serve. And, perhaps most relevant to the findings of this study, they may be doing it alone. Gatekeepers may have provided a screening

mechanism, but it seems that they also provided a connection. They connected the Deaf

community to hearing interpreters, but moreover they connected one individual to a network.

People cannot work in isolation. People were designed for connection and for service to others,

and in support of one another (Ex. 18:18; Prov. 27:17). Paul, the author of Philippians and many

other books of the Bible, summarized the call of man well when he said, "Do nothing from

selfish ambition or conceit, but in humility count others more significant than yourselves. Let

each of you look not only to his own interests, but also to the interests of others" (Phil. 2:3-4,

ESV).

<div align="center">**Limitations**</div>

This report, as with any study, is not without limitations. One such limitation is the

sample. The goal was set for a sample size of 200 to represent the approximate 16,000

interpreters in the United States, but only 145 individuals participated and 108 of those surveys

were valid. A larger sample would likely provide a more diverse sample. A second but related

limitation is the diversity of the sample. It appears that a large percentage of the given sample

are educational interpreters, which may be a valid representation of the population; however,

there is also a large percentage from just one region of RID coverage (region II).

Other limitations affected the ability to compare, contrast, and generalize. One concern

included a lack of baseline to which the data could be compared. For example, levels of anxiety,

depression, and stress within the current interpreting population cannot be compared to earlier

generations of interpreters for the simple reason that the earlier data does not exist. This

limitation reduces options for alternative explanations. Unfortunately, under the circumstances

this occurrence seems unavoidable. Also, the research questions themselves seem to be very

broad covering multiple areas. This breadth permitted the study to make connections resulting in

viable generalizations. However, a lack of depth (i.e., vicarious trauma) restricted the ability to make more detailed generalizations.

Recommendations for Future Research: Interpreting

As previously stated, this broad study could be the baseline for future research. One such study would be to re-create the foundation of this study with specific interpreter populations (i.e., VRS interpreters or legal interpreters). With the data found from a series of these studies conducted in this format, the findings could be compared and additional information about personality traits and levels of anxiety, depression, and stress could be uncovered. Furthermore, interviewing individuals on this topic may provide additional insight to correlations between personality and mental health.

Recommendations for Future Action

There is a dearth of research currently available regarding the personhood of professional ASL/English interpreters. More studies are needed across the spectrum of the impact this field has on the individual's well-being. The two most strongly recommended future projects for related work would be the development of a prevention and treatment plan specialized for practicing interpreters who are experiencing anxiety, depression, and/or stress. The second is related, to research and develop a curriculum for interpreter education programs that will address the risks of these mental health issues within the field, and to develop resilience in the future generation.

Summary

It is said that the prompting for a research project should come from finding a gap in the existing literature. In other words, learn what is available from prevailing works and see what is missing. Such a void was indeed the source of motivation for this resulting study. The void, it

turns out, was more of a chasm. There was little, if any, research regarding the current state of

the mental health of professional ASL/English interpreters. The data collected within these

pages are essential in substantiating the need and developing protocol to address mental health

issues for interpreters preventatively or restoratively.

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APPENDIX A

IRB Approval Letter

January 24, 2020

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

Nicole Thorn

IRB Exemption 4107.012420: The Current Mental Health Status of Professional ASL/English

Interpreters in The United States as It Pertains to Disorders (Specifically Focusing on Anxiety, Depression

and Stress Related Disorders), Personalities, and Work Related Influencers

Dear Nicole Thorn,

The Liberty University Institutional Review Board has reviewed your application in accordance with the

Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and

finds your study to be exempt from further IRB review. This means you may begin your research with

the data safeguarding methods mentioned in your approved application, and no further IRB oversight is

required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which

human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

> (2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
>
> > (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects;

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Research Ethics Office

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APPENDIX B

Consent Form

CONSENT FORM

The Current Mental Health Status of Professional ASL/English Interpreters in the United States as It

Pertains to Disorders: Specifically Focusing on Anxiety, Depression, Stress Related Disorders,

Personalities, and Work Related Influencers.

Nicole Thorn

Liberty University

School of Behavioral Sciences

You are invited to be in a research study to exam the mental health of professional ASL/English

interpreters in particular regarding anxiety and stress. You were selected as a possible participant

because you are over the age of 18, and you are working full-time (31 hours or more/week) as a

professional interpreter. Please read this form and ask any questions you may have before agreeing to

be in the study.

Nicole Thorn, a doctoral candidate in the School of Behavioral Sciences at Liberty University, is

conducting this study.

Background Information: The purpose of this study is to examine how the influence of personality

traits and external influences such as job stressors impact the mental health of professional ASL/English

interpreters.

Procedures: If you agree to be in this study, I would ask you to do the following things:

1. Complete a researcher generated survey consisting of 21 questions (this will take approximately 10 minutes
2. Complete a personality trait inventory of 44 Likert scaled questions (this should take about 5 minutes).
3. Complete a secondary stress inventory of 17 Likert scaled questions (this should take about 5 minutes).
4. Complete a depression, anxiety, and stress scale of 21 Likert scaled questions (this should take approximately 5 minutes to complete).

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would

encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include information that will help create a foundation on which professionals in the

field of interpreting can help current interpreters seek better treatment for mental health needs, and

interpreter education programs can develop lessons and tools to minimize risks of work-related mental

health issues in the future.

Compensation: Participants will be given an option at the completion of the survey packet to

participate in a drawing for one of three Amazon gift cards valued at $150 each. Participation in the

drawing will not be an option for individuals not competing the study. Contact information

The Liberty University Institutional
Review Board has approved
this document for use from
1/24/2020 to --
Protocol # 4107.012420

will be requested for the gift card drawing; however, this will be pulled and separated from your

responses by Qualtrics to maintain anonymity.

Confidentiality: The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records. Participants will be responding anonymously through the electronic format of Qualtrics. Data will be stored on a password locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or any interpreting agencies or entities. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Nicole Thorn. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at ndthorn@liberty.edu. You may also contact the researcher's faculty chair, Dr. Victor Hinson, at vdhinson@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.