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Exploring Deaf and Hard of Hearing College Students Career Development Experience: A Look at Social Cognitive Career Theory and Relational Career Theory

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Exploring Deaf and Hard of Hearing College Students Career Development Experience:

A Look at Social Cognitive Career Theory and Relational Career Theory

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Abstract

Work experience, parental support/influence, career barriers, and resiliency were themes examined in relation to Deaf and Hard of Hearing (DHH) students' career decision self-efficacy. DHH students at the higher education level were surveyed and interviewed to collect quantitative and qualitative data. Work experience had an impact on career decision making self-efficacy by helping to inform students of their career decisions and aid them in skill development. Parental support helped to decrease career indecision in DHH students, and were the people students went to the most with career concerns, particularly in their beginning years of college. The career barriers DHH students were most concerned about were perceptions employers have of DHH people and communication issues. Even though many students were concerned with barriers, most of them believed they had the resiliency to overcome any barriers. DHH students with low resiliency tended to have low career decision self-efficacy and greater concern for barriers.

Keywords: Career Decision Self-efficacy, Work Experience, Parental Support, Career Barriers, Resiliency, Deaf and Hard of Hearing.

Introduction

The present review of the literature provides an overview of a few career counseling theories and how career counseling has developed. Theories which are development and social in nature, such as Social Cognitive Career Theory and Relational Career Theory, are applied to the career development experiences of Deaf or Hard of Hearing (DHH) students. Elements such as career barriers, the locus of control, self-efficacy, resiliency, parental support, and work experience are explored concerning this population. Another factor which will be studied unrelated to the theories is that DHH students are often underprepared for college academically (Nagle, Newman, Shaver, & Marschark, 2016). All of these factors are important to consider when approaching career counseling work with DHH students.

Career Counseling Theories

There are many career counseling theories that counselors can use to inform their work with clients. Overtime, career counseling has evolved from trait and factor models to developmental models. In the beginnings, trait and factor approaches were used most often to match people with a job that would have an environment which aligned with their personality and interests. Since then, approaches to career counseling have become more developmental in nature (Harrington & Long, 2013). Not only is it important for a counselor to consider a client's interests, but they must also take into consideration their abilities to view them in a holistic manner (Harrington & Long, 2013). An outline of a trait and factor approach will be described, along with how utilizing a developmental career theory can address career barriers that a trait and factor theory may not help a practitioner to uncover.

Trait and Factor Approach

The foundation of the trait and factor approach includes three parts. The first is to increase knowledge of the self (Johnson, Nichols, Buboltz, & Rieesel, 2002). Knowledge of the self can help a student gain greater self-awareness of their interests and abilities. The second part is to help the client gain information about the professional world. Lastly, clients need to compare their self-knowledge with the knowledge they have about the professional world to make an informed career decision (Johnson et al., 2002). This approach attempted to match a person with an appropriate working environment based on their interests and abilities and is based on empirical data. An example of a trait and factor approach is Holland's Career Theory.

Holland's career theory. Holland's career theory is based on six working environments which align with people's interests and personality types (Gotfredson & Johnstun, 2009; Rayman & Atanasoff, 1999; Hogan & Blake, 1999). These working environments are Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (Rayman & Atanasoff, 1999). This simplified career counselors' work because it took approximately 20,000 occupations and provided a framework to help organize professional interests (Rayman & Antanasoff, 1999; Hogan & Blake, 1999). Holland believed individuals should be matched with their professional environment based on their personality and interest. A person will be drawn to an occupational environment that is similar to their interests and personality (Gotfredson & Johnstun, 2009). For example, an individual who is primarily Social will prefer a Social environment (Gotfredson & Johnstun, 2009). In the 1950's more developmental and social approaches to career counseling began to gain attention (Chartrand, 1991). Holland's Career Theory, as well as other trait and factor theories, did not account for potential career barriers a person could face in their lifetime which can be gained through a more qualitative approach with clients. A theory that addresses this issue is the Social Cognitive Career Theory.

Social Cognitive Career Theory

Social Cognitive Career Theory takes into consideration a person's career self-efficacy, goals, and outcome expectations, which are essential for career decision-making. The theory also takes into account a person's ethnicity, support from others, and any cultural barriers they may face (Kennedy & Chen, 2012; Sharf, 2010). High self-efficacy helps a person to work through difficult tasks and continue growing professionally without feeling unsuccessful (Kennedy & Chen, 2012; Sharf, 2010). When an individual can learn about and become involved in their culture, they learn about career expectations. Environmental factors in social cognitive career theory have an impact on the type of career barriers a person may face. Examples of career barriers are a lack of financial support for education and limited job opportunities in their chosen career field (Kennedy & Chen; Sharf, 2010). Viewing client's through this framework begs for a qualitative approach. A qualitative method can help a practitioner learn of cultural influences and career barriers the client may face. A population that experiences many career barriers are individuals who are deaf or hard of hearing (DHH) (Punch, Creed, & Hyde, 2006).

Deaf and hard of hearing students' career development. Unfortunately, not much research has been accomplished with DHH students at the college level. Many DHH students focus on vocational trades or occupations as opposed to entering college and are viewed through trait and factor approach as opposed to understanding how their career can be developmental. At the college level, DHH students face more cultural and career barriers than their hearing peers based on their hearing loss and their identification as DHH. The years a student spends in college are typically a time of career exploration and development, which makes understanding the development of DHH students' career relevant. This development can occur personally,

academically, and professionally (Stringer & Kerpelmen 2010). The cultural barriers a DHH student may face can influence their self-efficacy and differentiation of self in regards to what career options they believe they have and what they believe they can achieve.

Self- efficacy. A students' career identity development has several components. The first component is career decision self-efficacy which can be defined as a person having enough confidence in themselves, their goals, and career options to make career decisions (Betz, Klein & Taylor, 1996). Career decision self-efficacy influences a college student's career exploration, ability to make career decisions, and can predict a student's likelihood of committing to their career. Career decision self-efficacy also helps students internalize their career decision. Both parental support and work experience were found to be predictors for a student's career decision self-efficacy. The more parental support and work experience present, the greater the student's self-efficacy associated with career decisions. Hughes & Gibbons (2010), completed a study and found students' career decision-making self-efficacy was strongly correlated with the informational support they received from family. Sometimes, family members can be excessively supportive to the point where a student has a lack of differentiation of self and has trouble making important decisions on their own.

Differentiation of self. Differentiation of self refers to a student's ability to be autonomous and self-directed in their decision- making. A student with a high differentiation of self does not allow family members or other relationally close persons to take control of their decision-making. They can make decisions without emotionally separating from relationships to make their decision easier (Johnson, Schamuhn, Nelson, & Buboltz, 2014). In a recent study conducted by Johnson et al., (2014), data analysis discovered that differentiation of self was a predictor for positive career development. The researchers found that the more differentiated a

student was from significant relationships, the more confident and committed they were to their vocational identity. Also, a higher level of differentiation indicated higher levels of decidedness, comfort, self-clarity, knowledge, decisiveness, and career choice importance (Johnson et al., 2014). It is important to note a student's differentiation of self during their career exploration journey as it could influence their career decision-making self-efficacy.

Deaf and hard of hearing students' career barriers. The research about DHH and career has been completed mostly at the adolescent level or at the professional level (Punch et al., 2006; Yosso, 2005; Leal- Muniz & Constantine, 2005; Stringer & Kerpelmen, 2010). According to Punch et al., (2006), adolescent students who indicated more barriers associated with their hearing loss also reported more career barriers. They reported older students described more hearing related and career-related barriers potentially because they were closer to graduation. These students were concerned about how their hearing loss could affect their career opportunities. Punch et al., (2006), noted that in general, DHH people experienced higher rates of unemployment than hearing people. They noted another issue was underemployment of DHH individuals. Underemployment refers to people working in a job that underutilizes the amount of education the person achieved (Punch, Hyde & Creed, 2004; Punch, 2016). Some employers view hearing loss as a constraint against full accessibility in a specific profession, which could be the main reason for underemployment (Weisel & Cinamon, 2005). Also, because of career barriers such as underemployment, it is common for DHH students to limit their career goals to avoid career barriers (Punch et al., 2004). A study conducted by Punch, Hyde & Power (2007) also revealed DHH professionals chose jobs that avoided working directly with people, and that professionals' hearing loss restricted the type of jobs they could pursue. Some professionals experienced challenges of obtaining interviews after revealing their hearing loss to a potential

employer. Everyday routine tasks such as simply answering the phone can be a barrier for DHH professionals (Punch et al., 2007). DHH professionals have the right to receive reasonable accommodations for their jobs in an effort resolve simple barriers in the workplace such as answering the telephone.

Accommodations. Punch (2016) mentions the importance of accommodations to help alleviate some career barriers for DHH professionals. Punch et al., (2007), uncovered through qualitative data that sometimes when accommodations were requested, DHH professionals must wait a lengthy period before their request is met or fight for their accommodation (Punch et al., 2007). Examples of accommodations commonly used by DHH professionals are TTY devices, phone relay services, phone amplifiers, sign language interpreters, flashing alarms, computer-assisted note taking, better lighting, rearranging furniture to see people better, deaf awareness training for coworkers, and video conferencing (Punch et al., 2007). DHH students need to be encouraged and guided throughout college in the development of self-advocacy skills. Punch (2016), emphasized the importance of DHH professionals having knowledge, skill, and confidence in being able to advocate for accommodations. Persistence and self-advocacy skills are used by DHH professionals frequently and should be developed in DHH students (Punch et al., 2007; Punch 2016). Again, there was plentiful research on the career barriers of adolescents and professionals in the workplace, but research focused on the college age population was absent. The lack of research focused on the college population is concerning, particularly because college is an important career development period for students. Persistence and resilience are evidently factors that are vital for DHH professionals to develop during college to help them overcome a multitude career barriers once they enter the working world.

Deaf and hard of hearing students' resilience development. Audism is very prevalent in the lives of deaf people and commonly occurs when DHH professionals face career barriers. A couple of examples are, difficulty obtaining interviews after disclosing hearing loss, difficulty obtaining simply accommodations in the workplace, and underemployment due to hearing loss. Audism stems from the view that deafness is a disability, and deaf people are inferior and less than the general hearing population (Listman, Rogers, Hauser, 2011). Resilience can be applied to many struggles a DHH person faces and is defined as the person's ability to overcome those struggles (Listman et al., 2011). If a DHH professional has developed strong resilience, it will be easier for them to overcome struggles related to their career. Listman et al., (2011), identify adolescent age as a developmental period when DHH students can develop their resilience. They further explain that risk factors and protective factors affect resiliency. The more protective factors a person has, the stronger their resilience will be. For this discussion, resiliency will be referred to in relation to career barriers and self-efficacy. An example of a risk factor using the framework of career is being denied a reasonable accommodation in the workplace based on a professional's hearing loss (audism). An example of a protective factor is the DHH professional's ability to use productive problem-solving communication and perseverance to advocate for what they need in the workplace. The more protective factors the DHH professional can utilize in this situation, the more resilient they will be. Protective factors are typically learned through cultural capital, which is educational, social, and intellectual knowledge passed onto members within that culture. Therefore, it makes sense that Listman et al., (2011), identify a lack of deaf community resources as a risk factor. An example of such risk factor are parents who are not prepared or educated on how to guide their deaf child on how to live as a deaf person in the world of hearing majority (Listman et al., 2011). The lack of

knowledge on how to navigate situations that contain risk factors with a limited number of protective factors could have grave implications for a DHH college student entering the working world or the world of higher education. Another risk factor for entering higher education is being academically underprepared.

DHH Underprepared College Students

DHH students are often underprepared for college. According to Nagle et al., (2016), DHH students often will enter college unprepared in several subject areas. These areas are math, science, and reading. In a recent study conducted by Nagle et al., (2016), DHH students tend to take more vocational and nonacademic courses in high school than their hearing peers, resulting in fewer courses taken in science, social science, and languages. According to a study conducted by Albertini, Kelly, & Mathett, (2011), less than 25% of DHH students who indicated they wanted to receive a baccalaureate degree were academically ready for baccalaureate level study. The actual graduation rate for an Associates degree was 49% and took students an average of five years to complete an Associate of Applied Science Degree (Rosica & Kelly, 2002–2006). It is possible that DHH students' academic under-preparedness could have an influence on their career development.

Hughes and Gibbons (2016), discovered that underprepared students scored remarkably high on career decision self-efficacy. However, they point out that it may be a result of student's overly certain beliefs in their abilities that may be unrealistic for their actual self-efficacy. In addition, students may be limited in their choice of college major due to remedial courses that restrict their career decisions (Hughes & Gibbons, 2010). Clearly, it is important for students to have an accurate sense of self to inform their decision-making. Students also should have the ability to make autonomous decisions, and not be limited in their career choice due to remedial

work. According to Hughes, Gibbons & Mynatt (2013), underprepared college students face many challenges and among those are, an external locus of control that also influences their career decisions and an absence of behaviors to solicit help when needed.

Locus of Control

Locus of control is what type of control a person believes is associated their life events. A person with an internal locus of control believes they are responsible for their life events and the control lies with them. A person with an external locus of control believes that control of life events are determined by outside forces. Examples of outside forces are fate, other people, or luck (Findley & Cooper, 1983). An internal locus of control refers to the individual taking responsibility for their future and their life circumstances (Jacobs, Brown & Paatsch, 2012). In general, an external locus of control can be an issue for underprepared college students. Researchers found that an external locus of control was a predictor of poor academic performance for college level students (Gifford, Briceno-Perriott, & Miazano, 2006). Also, Baiocco, Laghi, and D'Alessio (2009) found that students with an external locus of control were less like to demonstrate strong decision-making skills. According to Saka, Gati & Kelly (2008), an external locus of control can lead to indecisiveness in career decision-making. This indecisiveness is driven by a lack of personal motivation rooted in the perception that the person doesn't have control.

Only one mixed methods study explored the relationship of control with DHH individuals' ability to maximize their professional potential (Jacobs et al., 2012). According to Jacobs et al., (2012), in the category of control DHH professionals viewed superior social skills, and knowledge of two languages (English and Sign Language) to be supporting traits for a strong internal self-control. It is clear more research should be conducted to explore effects of external

and internal locus of control on the career for DHH professionals. The same type of research should also be carried out on DHH students in higher education since college is such a crucial time for career development. Despite the importance of being able to separate oneself from others for decision-making and the benefits of having a strong differentiation of self, relationships remain important in learning how to navigate career barriers and developing resilience. Supportive parental relationships and work experience relationships can help with a student's career self-efficacy. These are components of relational career theory.

Relational Career Theory

According to Stringer and Kerpelmen (2010), identity development associated with career is vital in the college years due to the prominence of career exploration during this time. Career development can be viewed as a relational process in which the career identity is not developed by solely the individual but begins to form based on interactions with people (LaPointe, 2010). Hughes and Gibbons (2010), also based their study on the concept that career identity development is primarily relational in nature. Hinkleman and Luzzo (2007), point out the importance of psychosocial development for work performance and vocational functioning. However, it still should be noted that career counseling is mostly based on trait and factor theories to logically match a person's characteristics with an occupational environment's characteristics. Trait and factor career counseling typically utilizes assessments such as the Strong Interest Inventory most often to aid the counselor in finding an occupational match for their client (Schultheiss, 2003). Despite career counseling being rooted in Trait and Factor theories, Schultheiss (2003), examined a case study which highlighted the importance of relational factors in career development, and utilizing relational career counseling to work with a

client in a holistic manner. Two relational components that will be explored further are parental support and work experience.

Parental Support

Parental support is a critical component of career identity development according to Stringer & Kerpelmen (2010). Career related parental support has a positive influence on a student's career decision self-efficacy. Parental support was also a positive predictor for a student's commitment to their career identity (Leal- Muniz & Constantine, 2005). In a study, parental support was a predictor of students' career identity evaluation. Stringer & Kerpelmen (2010) describe career identity evaluation as a student's place in continuing progression of their career. This progression involves a student's identification with their career as well as exploration. Exploration could potentially be associated with how the student predicts themselves developing professionally in the future.

Parental support for deaf and hard of hearing students. As noted earlier, parental support is an important component of career identity development and the ability for students to develop career decision self-efficacy (Leal- Muniz & Constantine, 2005; Stringer & Kerpelmen, 2010). It is suggested that parental support could be even more crucial for students with disabilities such as DHH students (Michael, Most, Cinamon, 2013). The majority of the research conducted has focused on the adolescent age group with little attention to factors influencing DHH career development at the Higher Education level; however, information gathered at the adolescent age is still beneficial to understand.

A study conducted by Michael et al., (2013), uncovered that young DHH students were given less career related modeling and verbal encouragement than their hard of hearing and hearing peers. It is important to note that approximately 95% of deaf children have hearing

parents (Mitchell & Kartchmer, 2004). Sometimes this results in a language barrier between parent and child if the parents do not know sign language. Language barriers could be potentially associated with the lack of career related modeling and verbal encouragement to DHH students. According to Michael et al., (2013), research should be continued to explore variables that influence career self-efficacy for DHH adolescents. The absence of research of DHH college students career self-efficacy creates a need to explore DHH students career experiences at the college level as well.

Work Experience

Work experience is another important relational component of career identity development. According to Stringer and Kerpelmen (2010), this allows students to deepen their career exploration before they graduate college. In a study conducted by Stringer and Kerpelmen (2010), work experience was a predictor of students' career identity evaluation. Meijers and Lengelle (2012), also noted that vocational plans tend to develop and evolve through work experiences. Students can explore career opportunities through occupational engagement and also are increasing their awareness to help the student make informed career decisions based off of their work experiences (Meijers & Lengelle, 2012). In a study conducted by Creed, Patton, and Prideaux (2007), young students who had paid work experiences, had greater career decision-making self-efficacy and also indicated deeper career exploration and planning.

Deaf and hard of hearing students' work experience. There have been several studies conducted that explore the workplace experience of DHH individuals after they graduate from a University. To give an example, Jacobs et al., (2012), looked at various psychosocial factors which contribute to DHH being able to maximize their professional potential. Another example is Punch et al., (2007), explored DHH individuals' workplace experiences by completing a mixed

methods study which addressed DHH individuals' type of employment if their occupation was related to their field of study, their method of finding a job, difficulty in workplace situations, and workplace accommodations. There has been an absence of research addressing DHH students work experiences during higher education and how that experience has informed their career choice. There is a need for this type of research to determine if work experiences can help DHH students develop their resiliency, and self-advocacy skills before they enter the professional world.

It is clear there is a lot of further research which needs to occur regarding the DHH college student population and their experiences with career development. A vast majority of the research that has been conducted regarding DHH individuals and career has utilized quantitative methods (Punch et al., 2004). There have been several mixed methods studies, but they did not focus on the college-aged population. Punch et al., (2004) think qualitative methods can be particularly useful in exploring DHH adolescents' career development experiences and factors that impede or support their career development. It was also noted that narrative counseling which is solely qualitative in nature helps a counselor consider all aspects of the student and can recognize specific career needs that trait and factor assessments may not point out (Hughes et al., 2013). Therefore, this study will be purely qualitative in nature and will focus on the career development experiences of DHH college students to understand the influence of factors such as career decision-making self-efficacy, differentiation of self, the locus of control, work experience, parental/social support, resilience development, and career barriers.

Method

This study is mixed methods design. The quantitative component was a 29 item survey developed by the principle investigator to gather demographic information and gather

information on the variables. The data was analyzed for potential relationships between variables using SPSS. In addition, the qualitative component consisted of nine 30 minute – 1 hour interviews with the principle researcher. Interview content was transcribed and then analyzed for themes and patterns.

Participants

In order to participate in the study, participants needed to be enrolled in a Bachelors level program at the Institution, be at least 18 years of age, and also be DHH. DHH students who were pursuing associates degrees were excluded because the study focused on Bachelors level education in an effort to increase relativity to other Universities. The survey was sent out to approximately 350 students yielding 41 responses, which is more than a 10% response rate. Of those 41 survey participants, there were 24 females and 17 males, 32 participants that utilized hearing assistance with 21 students having hearing aids and 12 students having cochlear implants and 18 participants preferred American Sign Language as their method of communication while 21 students preferred spoken English. Nine students out of the 41 survey participants chose to participate in the interview portion of the study. The interview participants consisted of four males and five females all of which were at various year levels in college. Five of the interviewees had hearing assisted devices while four did not have hearing assisted devices. Both the survey and interview samples are considered a convenience sample because all the survey participants are students at the University where the study is taking place, and the interview participants were recruited from the original survey sample.

Procedure

The principle investigator retrieved a list of all Bachelor level students from the University who are DHH. The Principle Investigator then sent an email these students asking them if they are

interested, they will be able to participate in a research study that focuses on the career experiences of DHH college students by clicking a link taking students to the survey. If students did not consent they clicked on a separate link which took them to the University's career services homepage.

After receiving the recruitment email and indicating consent, students were able to complete the survey through the University's survey system. After completing the survey, participants had the option to include their name, email, and major if they would like to participate in the interview portion of the study or if they want to be entered in the raffle to win one of the \$10 gift cards. A total of four gift cards were raffled off. Students also had the option to remain anonymous. As way to encourage and recruit students to volunteer for the interview portion, all interview participants will be given a \$5 gift card to the campus coffee shop.

The quantitative data was analyzed through SPSS to see the relationships between variables using a paired sample t-test to determine if any of the variables were correlated and if relationships were statistically significant.

During the qualitative interviews, participants were asked to sign an additional consent form for the interview portion of the study. Interview prompts were utilized as a tool during the qualitative interviews to help guide students in their reflection of their career development experiences. The data was captured on a video -recorder and then interpreted into English if the participant used American Sign Language to communicate and then transcribed. The interpretations of the interviews using American Sign Language were completed by the Principle Investigator who possesses a Bachelors degree in American Sign Language Interpretation and has worked as an Interpreter for several years. The transcriptions were then coded for various themes and patterns.

Results

Career Decision Self-Efficacy

Approximately 95% of students surveyed either agreed or strongly agreed with the statement “I am confident in my ability to decide what I want to do for a living” while only 35% disagreed or strongly disagreed with the statement “I question my major/career choice”. In regards to career/major indecision a large percentage of students (32%) were unsure whether they questioned their career/major choice or not. “Undecided” was the most selected answer for that question. In summary, students are confident in their ability to decide on a career path, but many were still unsure if they question their major choice. Perhaps they have never had a reason to question their career choice.

Through the qualitative interviews students were asked how confident they were in their career goals. The principle investigator received the following responses. “I am very confident” (Interviewee 9, Personal Communication, February 23rd, 2017), “80 – 90% confident” (Interviewee 2, Personal Communication, February 1st, 2017), “Between 70% and 80% confident” (Interviewee 3, Personal Communication February 7th, 2017), “I would say 85% confident” (Interviewee 4, Personal Communication February 8th, 2017), “I would say 90% confident” (Interviewee 8, Personal Communication February 16th, 2017), “100% confident but for skill level 50% confident” (Interviewee 5, Personal Communication February 8th, 2017), “100% confident” (Interviewee 6, Personal Communication February 21st, 2017). One student was remarkably lower than the rest of the interviewees in regards to her confidence level. The particular student said that she was only 45% confident in her career decision and stated that her level of confidence could be increased with a required co-op for her program and more professional connections (Interviewee 7, Personal Communication, February 22nd 2017).

Some students had very specific career goals while others did not have a set goal. The presence of a career goal did not affect students' confidence level. Students who did not have specific career goals were confident in their choice to be flexible and open to new opportunities. "I am very confident that it is what I want. And it may change and I'm also fine with that, it is important to be able to adapt. My philosophy is set your sights on a goal and you will most likely hit somewhere around there." (Interviewee 9, Personal Communication, February 23rd, 2017). "I don't know honestly. I am really open to anything... I think it is best to keep my options and my networks open." (Interviewee 6, Personal Communication February 21st, 2017). "I feel confident in my ability to adapt to whatever comes (Interviewee 5, Personal Communication February 8th, 2017).

Work Experience

37 out of the 41 students who responded to the survey indicated they currently work or have previously worked in a paid or volunteer position. 76% of those students volunteering thought they gained information about what they wanted to do in their career from those experiences. There were no statistically significant correlations between work experience and career decision self-efficacy through the quantitative data. However, there was an overwhelming amount of qualitative data support to suggest that work experience does have an influence on career decision self-efficacy. Two themes emerged from analyzing the qualitative data which suggested that work experience helped students with informing their career decisions and in skill development.

Informing career decision. There were various work experiences that helped students inform their career decisions. Some students realized what they didn't want for their career by trying various jobs while others received confirmation that they were on the right track. "I got

the inspiration to go back to school and to continue developing my knowledge when I was working at the grocery store..." (Interviewee 4, Personal Communication February 8th, 2017). "They all helped me try out different things. I will observe my bosses...and figure out if that is something I want for myself. It really helped to give ideas and think about different occupations." (Interviewee 6, Personal Communication February 21st, 2017). "I obviously know that I don't want to do graphic design" (Interviewee 9, Personal Communication, February 23rd, 2017). "I like to teach. But I don't want to make it my life. So I like it but I found out it's not for me for a career." (Interviewee 1, Personal communication, January 31st, 2017). "My work experiences in my major helped me realize it wasn't the right major for me" (Interviewee 2, Personal Communication, February 1st, 2017). The other area work experiences helped students was with their skill development and awareness.

Skill development. Interviewee 5 indicated numerous lessons that she learned from part time jobs as well as her co-ops. "My part-time jobs taught me how to be an employee and how to be a good employee. Because I think that is something everyone struggles with when they first find a job...I pretty much went from the floor to the ceiling in skill level (from my co-op)" (Interviewee 5, Personal Communication February 8th, 2017). Interviewee 3 also mentioned knowledge of skills. "Basically they helped me to learn about my skills and what I'm good at." (Interviewee 3, Personal Communication February 7th, 2017). Other skill development included being self-reliant to interact with hearing individuals. "It shows I can work with kids and teachers without interpreters if I need to." (Interviewee 7, Personal Communication, February 22nd 2017). "I wanted to see if I could function normally without an interpreter. And it worked." (Interviewee 4, Personal Communication February 8th, 2017). The awareness of skills and skill development through experiences helped to increase student's confidence for a successful career.

Parental Support/Influence

The variables of parental support and career uncertainty were moderately negatively correlated, $r = -.42$, $p = .007$. As parental support increased career uncertainty tended to decrease based off of the survey data. There was also a correlation between the variables of College year and who students typically discuss career issues with. These variables were moderately correlated, $r = .41$, $p = .008$. As year level increased the variety of people students reached out to when career concerns arose increased. During the first year of college mainly parents and friends are sought out for advice/discussions related to career concerns.

In addition to this quantitative evidence, there was qualitative evidence to further support the relationship between parental support/influence and career decision self-efficacy. Some students described the unwavering support received from their parents. “My parents are very supportive of everything...so if I am happy, they are happy, so I could do anything I want.” (Interviewee 1, Personal Communication, January 31st, 2017). “My parents raised me with the belief that you could do anything you wanted...They never said I couldn’t do anything.” (Interviewee 9, Personal Communication, February 23rd, 2017). “My mom has been a clear influence...” (Interviewee 4, Personal Communication February 8th, 2017)

Other students commented on the various actions their parents took to help them explore their interests or work through career decisions. “My mom talked things out with me when I was trying to decide which major was right for me.” (Interviewee 2, Personal Communication, February 1st, 2017). “My dad brought us into his work...and allowed us to see what he does, how he operates, and if we wanted we could work with him and build some skills.” (Interviewee 5, Personal Communication February 8th, 2017). “Observing my dad in his occupations...it helped me see different kinds of work.” (Interviewee 6, Personal Communication February 21st,

2017). “My mom definitely helped a lot...at first I wanted to do animation so I went to a camp to see what animation was like...she obviously knew it was important for me to explore and find out.” (Interviewee 7, Personal Communication, February 22nd 2017).“The main reason they bought a computer was because they saw that we were interested in it.” (Interviewee 8, Personal Communication February 16th, 2017). Both the quantitative and qualitative data for parental support/influence show the importance of parental involvements on students’ career exploration and decision making. The next variable to be examined is career barriers in relation to career decision self-efficacy.

Career Barriers

More than half of the students surveyed (61%) Agreed or Strongly Agreed that they were concerned career barriers may get in the way of their career goals. Career barriers and career decision self-efficacy were moderately negatively correlated, $r=-.35$, $p=.024$. As concern for career barriers grew, career decision self efficacy tended to decrease (See Figure 1).

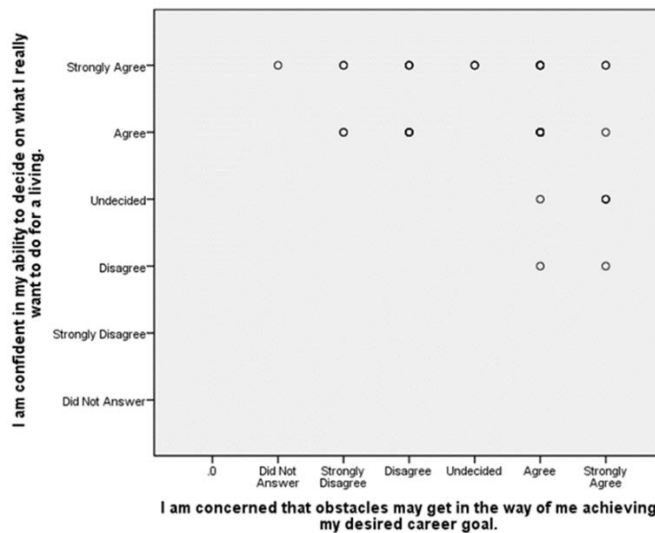


Figure 1. Correlation of Career Decision Self- Efficacy and Career Barriers

The two most common career barriers students were concerned about from the qualitative interviews were communication issues and there mere fact of being deaf and how potential

employers may perceive the students. “Well that I am deaf obviously, and that most jobs I am interested in...the people who work these jobs tend to be hearing, all hearing people.”

(Interviewee 1, Personal Communication, January 31st, 2017). “As much as I don’t want to point out...deafness can be a barrier. It can be a barrier in communication, and for people who haven’t worked with a deaf person before and aren’t sure how to work with one.” (Interviewee 7, Personal Communication, February 22nd 2017). “I do worry about perceptions or assumptions people make when they meet me in general, especially in regard to the disability.” (Interviewee 9, Personal Communication, February 23rd, 2017). “Talking on the phone through Video Relay Services worries me because I’m not sure if my message is coming across the way I intended, and I also don’t want to miss important information that could be lost in translation.”

(Interviewee 2, Personal Communication, February 1st, 2017). “If the person is talking really quietly sometimes I will have to say ‘I’m sorry can you repeat that?’ ...Sometimes it gets annoying on their part because they think I’m not paying attention, but I literally can’t hear you.”

(Interviewee 8, Personal Communication February 16th, 2017). “If I want to interview with a company, just the struggle sometimes with the ways of communicating.” (Interviewee 5, Personal Communication February 8th, 2017). Another career barrier that was cited by two students during the interviews were time management (Interviewee 4, Personal Communication February 8th, 2017; Interviewee 3, Personal Communication February 7th, 2017).

Resiliency

Even though many students were concerned about career barriers, 93% students either Agreed or Strongly Agreed that they have the ability to overcome career barriers. There was a moderately negative correlation between the variables of career barriers and resiliency, $r = -.35$, $p = .025$. As concern for barriers increased, belief in resiliency decreased. As resiliency increased,

concern for barriers tended to decrease. There was also a moderately positive correlation between the variables of resiliency and career decision self-efficacy, $r=.46$, $p=.002$. As resiliency increased, career decision self-efficacy increased (See Figure 2).

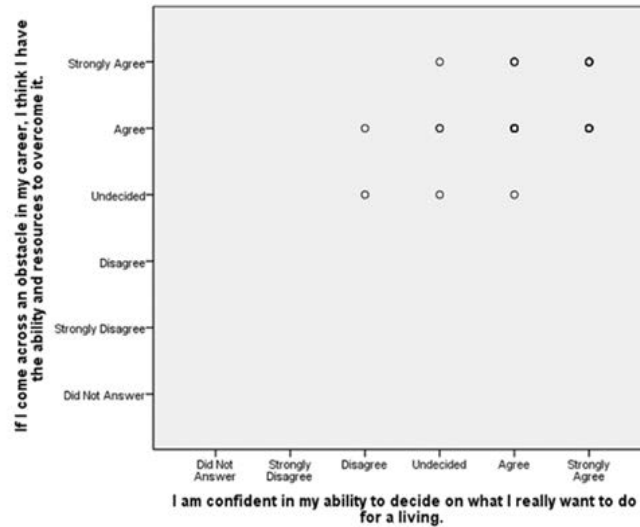


Figure 2. Correlation of Career Decision Self-Efficacy and Resiliency

There was also qualitative support to increase the evidence that resiliency has an impact on both career decision self-efficacy and reduces the concerns of career barriers. Two sub themes of task approach skills and advocacy were found in relation to resiliency.

Task approach skills. Task approach skills are skills students have learned to use when confronted with a difficult situation, or ways they have learned to navigate around that situation. Different task approach skills mentioned are the use of technology, educating those around them, adapting to various situations, and utilizing resources to overcome barriers. “My first co-op, most of our messaging was through QQ, it is like AIM...” (Interviewee 4, Personal Communication February 8th, 2017). “When I don’t understand or misunderstand something somebody said, people will most of the time assume that I’m stupid or whatever. I think that there needs to be more compassion, so most of the time I make it a point to educate” (Interviewee 5, Personal Communication February 8th, 2017). “I have had experiences in managing different and odd

situations...so those kinds of experiences have been really helpful in teaching me how to adapt in future situations and figure out how to approach that situation.” (Interviewee 6, Personal Communication February 21st, 2017). “I got a lot of help my first semester because my college has tutoring services for deaf and hard of hearing students. So they helped me with my homework and labs.” (Interviewee 3, Personal Communication February 7th, 2017).

Advocacy. Advocacy has helped DHH students be resilient by standing up for what they need, making their needs known to others, and standing up for themselves when they feel they are being treated unfairly because of their hearing loss. “I met with the chair of the department and told him that the program needed to be more accommodating to my needs... they treated me as a student first and deaf second, but recognizing my deafness first is important to my success as a student.” (Interviewee 2, Personal Communication, February 1st, 2017). “I just said to my VR counselor this is what I want to do and this is what I am going to do...and if you don’t like it we still need to work together but this is what I am deciding.” (Interviewee 7, Personal Communication, February 22nd 2017). “I usually say I prefer video call over phone for an interview and just try to state my preference and usually they are able to meet me half way.” (Interviewee 5, Personal Communication February 8th, 2017). “I actually had to petition the school for because they weren’t able to accommodate me, so I said this low grade should be taken off of my transcript because it was there for reasons other than academic reasons.” (Interviewee 9, Personal Communication, February 23rd, 2017). Task approach skills as well as advocacy are two areas DHH students can utilize to help them increase their resiliency if they happen to face career barriers in the future. With an increase in resiliency, their concern for barriers will be lessened and their confidence in their career abilities can be increased.

Discussion

It important to mention there was no correlation between the students' level of hearing loss and their career decision self-efficacy. There were other variables however that had a clear impact on DHH student's career decision self-efficacy. Parental support/influence, work experience, career barriers, and resiliency all had an influence on students' career decision self-efficacy. This helps to answer the research question that the variables of work experience, parental support/influence, career barriers, and resiliency do in fact influence career decision self-efficacy in DHH college level students.

Parental support/influence is viewed as a positive element to many students and can increase their career decision self-efficacy. Many times, in higher education professionals have an assumption that parental influence is seen as a negative quality often referring to them as "helicopter" or "snowplow" parents. However the data from this study would argue that the more parental support and involvement there is, the DHH student will have a higher career decision self-efficacy.

Work experience was also noted to be an important factor in career decision making. Work experience can help inform students' careers and also helps them develop skills they will need in the world of work. Students who do not take advantage of work opportunities or do not have internships related to their major are at a disadvantage in regards to their career decision-making.

Career barriers and resiliency are two very important factors for DHH college students in relation to their career decision self-efficacy. Resilient characteristics that help students overcome career barriers are knowing how to advocate for their needs and task approach skills. DHH students have been forced to develop some sense of resiliency throughout their upbringing

due to possible oppression or difficulties they may endure because of their hearing loss. Honing their resiliency to incorporate work place task approach skills and knowing how to advocate for themselves in the workplace can increase their career self-efficacy.

Another important idea to take away from this study is DHH students can in fact have a high career decision self-efficacy even if they do not have a career plan yet. Many times professionals in career development or career services offices are focused on the end goal of having the student decide on a specific path and then get a job. Students without a career plan are confident in their approach to career by being open to new opportunities. Therefore it is important for professionals to be aware they will be working with students in an ambiguous state.

Whether students are in an ambiguous state or have a specific career plan, career services professionals should listen for congruence and consistency within student's stories which can help identify career decision self-efficacy. For example, if a student wants to become a doctor but has failed Biology 101 twice that is inconsistent and incongruent with their career goals and likely means they have a low career decision self-efficacy. It is like a staircase which is missing a step, it doesn't make much sense and is difficult to get to the desired end point. Another example is if a student wants to pursue a technical career but is taking all artistic and creative classes and has withdrawn from their technical classes, this can also be viewed as incongruent.

Limitations

Several limitations were present in this study. The first limitation was the Principle Investigator created the survey tool used due to the high cost of career decision self-efficacy surveys and in an effort to target the variables stated in the research question. Self-creation of the assessment tool limits the validity and reliability of the survey. The principle investigator triangulated to ensure that data was taken in various forms and from different sources in the

study. The second limitation was the study only focused on DHH Bachelors level students since the Principle Investigator's site serves mostly Bachelors level students and very few Associates level students. However, many DHH students at the Institution are at the Associates degree level. A third limitation was the lack of comparison between DHH students and hearing students. For further research it would be beneficial to include associates level students and compare the DHH student population results to the hearing student population results to determine if any differences exist in career decision self-efficacy.

Conclusion

This study uncovered that parental support/influence and work experience do affect career decision self-efficacy. It also uncovered career barriers and resiliency also have an effect on career decision self-efficacy. Suggestions for career services professionals working with DHH students are to be aware of assumptions related to parental involvement and working with students who have an ambiguous career path. Equally as important, is the need for professionals to take note of the common career barriers DHH students are concerned about and assist students in developing the resiliency skills necessary to be successful in whatever career path they choose.

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