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## Vocational Counseling Assisting Individuals with Spinal Cord Injury to be Independent

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VOCATIONAL COUNSELING ASSISTING INDIVIDUALS WITH SPINAL CORD INJURY  
TO BE INDEPENDENT

by

Frank Brian Vahl

B.A. Southern Illinois University, 2016

A Research Paper

Submitted in Partial Fulfillment of the Requirements for the  
Master of Science

Department of Rehabilitation

in the Graduate School

Southern Illinois University Carbondale

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RESEARCH PAPER APPROVAL

VOCATIONAL COUNSELING ASSISTING INDIVIDUALS WITH SPINAL CORD INJURY  
TO BE INDEPENDENT

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Frank Brian Vahl

A Research Paper Submitted in Partial

Fulfillment of the Requirements

For the Degree of

Master of Science

In the field of Rehabilitation Counseling

Approved by:

Dr. Thomas D. Upton, Chair

Graduate School

Southern Illinois University Carbondale

December 2019

## **AN ABSTRACT OF THE RESEARCH PAPER OF**

Frank Brian Vahl, for the Master of Science degree in Rehabilitation Counseling, presented on September 9, 2019, at Southern Illinois University Carbondale.

**TITLE: VOCATIONAL COUNSELING ASSISTING INDIVIDUALS WITH SPINAL CORD INJURY TO BE INDEPENDENT**

**MAJOR PROFESSOR: Dr. Thomas D. Upton**

The purpose of this Research paper is to look at ways a vocational counselor may better assist individuals with a spinal cord injury in becoming independent. By reviewing literature that has been published to see if it has any significance to assist individuals with a spinal cord injury to become independent. To better understand the needs of individuals with spinal cord injuries this paper will review quality of life, assistive technology, and discrimination. If vocational counselors advocate for individuals with spinal cord injuries against discrimination and assist in getting up to date assistive technology it may encourage individuals with spinal cord injury to become independent.

## **ACKNOWLEDGEMENTS**

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## **CHAPTER 1**

### **INTRODUCTION**

There are about 285,000 people in the United States living with a spinal cord injury and it is estimated that there are 17,500 new individuals living with a spinal cord injury each year (National SCI Statistical Center, 2017). The age that a person may acquire a spinal cord injury has increased since the 1970's from 29 years old to 42 years old today and more than 80% of new cases are males. Spinal cord injuries are caused by many different activities falls, playing sport activities, violent acts, with automobile accidents being the leading cause of a spinal cord injury.

The type of disability an individual may acquire from a spinal cord injury depends on the amount of damage and area of the spinal cord that the trauma has impacted. If a spinal cord has been severed it is a complete injury, sensation and ability to move is lost below the damage to the spine. Sense of touch and the difference from hot and cold along with the ability to move legs arms or shoulders may be affected. Most injuries to the spinal cord are incomplete meaning that the spinal cord has not been severed but the damage to the spine is still severe enough to affect the areas below the injury and depending on the amount of damage the individual may get some return back in time with physical and occupational therapy.

The spine is categorized in sections of the Vertebrae (C1-C8) Cervical Nerves, (T1-T12) Thoracic Nerves, (L1-L5) Lumbar Nerves, and (S1-S5) Sacral Nerves (Shepherd Center, 2018). Cervical Spinal Cord injuries are considered the most severe this level of injury may affect the breathing. When injuries are this high up on the spinal cord an individual may be considered a quadriplegia or tetraplegia, this is when all four limbs are affected. If the damage is severe an individual will probably need assistance with all aspects of daily living. The person may not be

able to feed themselves because their arms and hands may be affected; dexterity and endurance to do any task could make it practically impossible. Things that most people take for granted like dressing themselves, washing, using bathroom for bowel or bladder relief and even getting out of bed may be so difficult or impossible that an individual may need a personal aid to assist in all daily living activities. A power wheelchair may be one of the few things an individual with this much damage may be able to use with special controls.

Injuries in the Thoracic nerves of the spinal cord will affect muscles from the chest down. This means they would be considered a paraplegia and need to use a manual wheelchair or possibly braces. The individual would most likely not be able to stand or walk. Their back and abdominal muscles would be affected but should still be able to balance in a seated position. They may not have control of their bowel or bladder function and may have to manage it with training using special equipment. Vehicles can be modified for them to drive.

The lower section of the spine has the Lumbar nerves and the sacral nerves. If an injury is in the Lumbar section the individual may lose some or all function in the hips and legs. They may use a manual wheelchair or if they still have some strength in their legs they may use braces to get around. They may all so need training for their bowel and bladder if they have lost voluntary control. Sacral nerve damage affects the hips and legs but should still be able to walk. They may lose voluntary control of bowel and bladder, training to handle with special equipment is possible.

Discrimination of individuals with a disability in the workplace happens in many different ways. If an individual is not hired simply because they have a disability or if reasonable accommodations are not made so that an individual can perform tasks. When other employees cut in front of a person with a disability because they don't want to wait for the individual that

has a disability to complete their task this is discrimination. An employer or employees may believe an individual with a disability cannot perform a job task as well as someone that does not have a disability. Some of this is because of stereotyping physical disabilities and culturally believing individuals with a disability cannot perform the same tasks as individuals without a disability. That is called ableism.

According to the National SCI Statistical Center (2017) there is an estimated 240,000 to 337,000 persons living with SCI in the United States, with 17,500 new individuals with spinal cord injuries each year. Only around 1/3 of the individuals with spinal cord injuries return to work after acquiring a disability. There are many reasons individual do not return to work; age, race, amount of education, level of injury, ability to move about independently, and motivation are some of the reasons. The purpose of this paper is to figure out what is needed by vocational counselors besides testing what their job interest maybe and education to assist individuals in becoming independent and motivated to return to the workforce. This is needed because 2/3 of individuals that acquire a spinal cord injury do not return to work. Most individuals' identities are related to what kind of work they do and they don't want to be known as the disabled person but as the person that accomplishes tasks. To complete this paper I will review literature that has been published reporting what it found. Determine if what has been published has any significance to this paper to assist individuals with a spinal cord injury to become independent.

## CHAPTER 2

### OVERVIEW OF THE LITERATURE

In a research article by nge, K. J., Cimera, R. E., Revell, W. G., Wehman, P. H., & Seward, H. E. (2015) it states that individuals with higher levels of education were more successful in finding employment after a spinal cord injury than individuals that did not have at least an associate's degree. The individual that received assessment, VR counseling and guidance, along with rehabilitation technology had a better outcome for finding employment than individuals that received assessment, VR counseling and guidance, and diagnosis with treatment. The article concludes that rehabilitation technology made the difference in having a successful outcome in finding employment. This article all so states that less minorities return to work after a spinal cord injury and white/Caucasian had higher outcomes for returning to work. This could be due to race, age of injury, and educations.

In a study about understanding what individuals experience after a spinal cord injury and what factors influence their decision to return to employment. Thirty- one participates were involved in the study. Using a mixed method approach, quantitative data and qualitative data was collected using descriptive statistics, correlations, and pathway mapping. Interpretive phenomenological analysis was used to understand the quantitative and qualitative data. (Hilton, G., Unsworth, C. A., Stuckey, R., & Murphy, G. C., 2018).

Participates were placed into three groups stable employment, unstable employment, and without employment. This study wanted to explore what variables directing the individual's decisions for employment. It looked at what individuals did before and after injury. The experience individuals went through pursuing, achieving, and maintaining employment. (Hilton, G., Unsworth, C. A., Stuckey, R., & Murphy, G. C., 2018).

This research involved understanding the participants reasoning for seeking employment. Four categories were used to identify participants decision cultural change, system navigation, worker identity, and social supports Hilton, G., Unsworth, C. A., Stuckey, R., & Murphy, G. C., (2018). Individuals that had found work were confident about employment being a part of their lives. The individuals that did not find employment did not have the same confidence. Their experiences have not been supportive of finding employment and the rehabilitation centers they had been involved with focused on physical recovery. System navigation showed individuals were worried about losing their safety net, medical insurance and welfare program. There should be a trial work period without fear of losing benefits Hilton, G., Unsworth, C. A., Stuckey, R., & Murphy, G. C., (2018). All individual showed interest in working for socializing, feeling of being a valued member in society, and having an identity with purpose. Social support is important for peer connections, trust, and elevating any unknown fears.

### **Quality Of Life**

World Health Organization defines Quality of Life (ND) “as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment”. Individual’s life after a spinal cord injury is negatively affected and diminishes their quality of life. There is interest in improving these individuals’ lives with assistive technology to allow these individual to socially interact and restore interactions into society. (Baldassin, V., Shimizu, H. E., & Fachin-Martins, E. 2018). For an individual that is quadriplegia accessible technology for

example, a computer would make access to information, possibility of work, and assorted activities giving the individual greater independence.

There are many different types of assistive technologies such as software that is voice command making navigation on the computer possible and dictating their thought on to word documents, modified mice, and typing sticks. These assist individuals with quadriplegia with quality of life by being independent to perform activities on their own. Many health professionals maybe unaware of how effective assistive technology is in improving the lives of individuals with spinal cord injury being less restrictive in participating in social networking and work (Baldassin, V., Shimizu, H. E., & Fachin-Martins, E. 2018).

In a study using quantitative, qualitative, reviews and case report studies examined the quality of life of individuals with a spinal cord injury after using assistive technology. The study used literature from PubMed, Physiotherapy Evidence Database, Latin American and Caribbean in Health Sciences, PsycINFO and Scientific Electronic Library Online. Doing an electronic search using keywords related to spinal cord injury, assistive technology, and quality of life was used to collect data and reviewed by two judges. The study was only able to use 10 articles but found 97 articles not using a date restriction and had to reject 87 of the articles because they didn't all include the search terms assistive technology, quality of life, and spinal cord injury (Baldassin, V., Shimizu, H. E., & Fachin-Martins, E. 2018).

In the 10 articles of assistive technology it measured quality of life using home entertainment system, door opener, computer and security system, emergency alert device, specialized telephone, brain computer interface, dragon voice activation, trackball mouse, a mouth controlled computer mouse, and lights. Participates said they felt more competent and motivated using the assistive technology and it increased their quality of life. One study

suggested that assistive technology could overcome obstacles to finding employment (Baldassin, V., Shimizu, H. E., & Fachin-Martins, E. 2018).

### **Assistive Technology**

A spinal cord injury is never expected, it makes many aspect of life challenging to the individual. Individuals with a spinal cord injury will become isolated because they lose the ability to function independently. Most individuals with a spinal cord injury have finished their education and been employed in some field. With people living longer today it has to be expected that the spinal cord injury population will grow and will be living longer well into the future (Folan, A., Barclay, L., Cooper, C., & Robinson, M. 2015).

Electronic devices have become less expensive and more embedded in our lives. Many of the assistive technologies that have been developed are potentially usable by individuals with a physical disability. The disadvantage many individuals with a spinal cord injury have is being illiterate to technology with no or little computer skills. Because these individuals may have less education, lower income, or part of a minority group it puts them in unfavorable circumstance for using assistive technologies (Folan, A., Barclay, L., Cooper, C., & Robinson, M. 2015).

In a study done by Folan, A., Barclay, L., Cooper, C., & Robinson, M. (2015) to understand the experience individuals with spinal cord injury go through when testing and learning how to use assistive technologies to complete task on computers. This study had three themes with sub-themes. The first theme was getting back into life, its sub-themes were able to complete task independently, return of meaningful life role, and improved opportunities for return to work.

Using assistive technology like dragon voice activation, trackball mouse, finger splints, microphone, and quad joy to use the computer and have access to internet, Facebook, composing

letters, music, email, online banking, and work task allowed individuals to accomplish task independently. Being able to complete task with the technology allowed the individuals to feel in control and they found it rewarding. Individual using the technology felt motivated to return to work (Folan, A., Barclay, L., Cooper, C., & Robinson, M. 2015).

The second theme was assisting in adjusting to injury; its sub-themes were able to overcome physical barriers, making sense of an altered condition, distraction from injury, and looking towards the future. Individuals with physical movement in their arms and hands may have a difficult time working a keyboard or using a mouse. Using a voice activated system like Dragon gave individuals the ability to overcome these barriers. While using the assistive technologies they began to see things differently from being able to do tasks physically, to using their brains and understanding their altered condition. Individuals using the assistive technology gave them a way to communicate with others even from their bed; this distracted them from focusing on their injuries (Folan, A., Barclay, L., Cooper, C., & Robinson, M. 2015).

The third theme was learning new skills and its sub-themes can take a long time, early introduction in rehabilitation, and not limited by familiarity with computers. Individuals using the assistive technology in the beginning did not like it because they took longer or seemed slow and made it formidable. Individuals expressed that that they felt more confident as their skills improved but said they needed plenty of practice before they would be able to use the assistive technology in an occupation. Some individuals had limited experience with using computers before their injuries and using the assistive technology with the computers in rehabilitation allowed them to become familiar with the technology (Folan, A., Barclay, L., Cooper, C., & Robinson, M. 2015).

According to Carver, J., Ganus, A., Ivey, J. M., Plummer, T., & Eubank, A. (2016) the individuals that will require mobility assisted technology will rapidly increase it looked at data from 2010 to 2012 and came to that conclusion. Mobility is defined by Carver, J., Ganus, A., Ivey, J. M., Plummer, T., & Eubank, A. (2016) as an “individual’s ability to move his or her body within an environment or between environments and the ability to manipulate objects”. Individuals that have become impaired from a spinal cord injury may not be able to complete daily living task or interact in their communities. Assistive technology is supposed to improve the quality of life for the person with a disability but if the assistive technology is not customized to the individual it may be looked at negatively and prevent the individual from interacting in their communities or doing anything independently. When individuals are limited in their mobility they are oppressed and unable to pursue meaningful activities like education, social activities, and employment.

In a study done by Carver, J., Ganus, A., Ivey, J. M., Plummer, T., & Eubank, A. (2016) to find out how individuals using mobility assistive technology regard the assistive technology in ease or difficulty. The study was completed by online questionnaire, the criteria to be in the study was signed informed consent, must be using mobility assistive technology device, and be between the age of 18 to 100. This consisted of 10 questions on if their mobility device met their desired needs. The questions were answered using the likert scale with the options completely agree, mostly agree, slightly agree, slightly disagree, mostly disagree and completely disagree. Then they could answer two open questions on barriers and mobility impact.

In phase 1 participants completed a survey on what mobility device they used and then they completed survey. There were 10 participants in this phase. Phase 2 participants had in-person-interviews and then completed the online survey. There were 46 individuals that

participated in this phase of the study. Phase 3 had in-person-interviews and then they completed online survey. There were 5 participants in this phase (Carver, J., Ganus, A., Ivey, J. M., Plummer, T., & Eubank, A. 2016)

This study collected data on the clients before doing the online survey. The study wanted to know all of the assistive technologies they may be using even if they don't use them all of the time. They asked the participants what their degree of injury is and if they use power or manual wheelchairs. Quantitative data was gathered to assess functional mobility the questions were on daily routine, comfort needs, health needs, independence, surface heights, transfers, personal care task, indoor mobility, outdoor mobility, and transportation. The answers to the survey were categorized from disagree, slightly agree, mostly agree, and completely agree. For the qualitative data participants answered questions on barriers to access, environment, indoor environment, doorways, restrooms, stairs, ramps, historical buildings, and outdoor environment (Carver, J., Ganus, A., Ivey, J. M., Plummer, T., & Eubank, A. 2016)

Responses to the questions and survey ranged from positive and expressing that they are able to do more now that they had the right assistive technology. Many looked at the assistive technology negatively saying that it slowed them down because they still needed assistance from others to complete task. There were some responses that claimed the assistive technology didn't improve their lives at all. Many of the responses said that their quality of life has improved (Carver, J., Ganus, A., Ivey, J. M., Plummer, T., & Eubank, A. 2016).

Individuals with a spinal cord injury use assistive technology like braces and wheelchairs to navigate through an environment that has many obstacles that make it difficult for them to be independent. Boninger, M., French, J., Abbas, J., Nagy, L., Ferguson-Pell, M., Taylor, S. J., ... Sherwood, A. (2012) look into improvements to the assistive technology for the future making it

possible for individuals with a spinal cord injury to participate fully and independently. Although assistive technology allows individuals with a spinal cord injury to have a better quality of life by making it possible for them to move and interact with their environment it has not removed the disability. Individuals that cannot walk still cannot negotiate stairs or play a musical instrument like an organ even with electrical stimulation device if their hands are impaired.

In the foreseeable future technology will make it possible for individuals with a spinal cord injury to be totally independent. One of the things that have slowed the progress for advancement in assistive technology is that spinal cord injury is a small community with little economic benefits. The research in this article will look at what progress in assistive technology, rehabilitation, and social political environment will influence progress (Boninger, M., French, J., Abbas, J., Nagy, L., Ferguson-Pell, M., Taylor, S. J., ... Sherwood, A. 2012).

Because of cell phones and laptops battery power has increased while the battery has decreased in size and become more resilient to abuse. Advances in this technology will make using implanted devices safer eliminating the need to replace the battery by using inductive radio frequency to power a device. Cars are now using fuel cells to power them further and faster. In the future these fuel cells may be used to power devices for individuals that have a spinal cord injury. Transistors continue to double in power every couple of years and this has made possible laptops, cell phones, and internet as this technology advances it will be implemented for use in technology for individuals with a spinal cord injury. In the future sensors can be used in assistive technology to power neuroprosthesis, prevent burns to hands or body, and warning of possible pressure sores. This sensor technology will be used with GPS, cameras, and collision avoidance to prevent accidents by individuals that have impaired motor abilities (Boninger, M., French, J., Abbas, J., Nagy, L., Ferguson-Pell, M., Taylor, S. J., ... Sherwood, A. 2012).

There are many other devices that will be improved upon in the future for example robotics can assist individuals with walking on a treadmill assisting individuals with spinal cord injury with increased movement and hopefully more function below their injury level. Robotics may be able to assist individuals with daily living tasks. An exoskeleton may become lighter and simpler to use making it possible for the user to wear it as if it was a part of them, making it possible to walk or reach for items. Wheelchairs will change technology will make them lighter and easier to maneuver different environments, electric chairs will be able to detect if the handler needs assistance or move seat to prevent pressure sores. They have been working on direct brain interface to allow an individual to control other devices around them by just using their thought; this will give individuals with the highest level of spinal cord damage more autonomy. Another option in the future to restore some function to individuals that cannot use hands because of paralysis is a neural prosthesis that will be able to increase control to their hands in order to complete daily living tasks (Boninger, M., French, J., Abbas, J., Nagy, L., Ferguson-Pell, M., Taylor, S. J., ... Sherwood, A. 2012).

The social political process has “three main barriers to deployment of technologies for mobility: (1) market availability, (2) awareness and (3) financial access or cost” (Boninger, M., French, J., Abbas, J., Nagy, L., Ferguson-Pell, M., Taylor, S. J., ... Sherwood, A. 2012). For the financial access or cost clinicians should look at quality of life in how many years the individual will be able to use the product this should make it more acceptable by government and third party payers to approve the product for use by the individual. To be sure the product is accepted by third party or government programs developers must be able to code their products as medically necessary. Clinicians may need to start advocating for individuals that could benefit from assistive technology because it will allow them to be productive and independent in society

(Boninger, M., French, J., Abbas, J., Nagy, L., Ferguson-Pell, M., Taylor, S. J., ... Sherwood, A. 2012).

Many individuals that acquire a spinal cord injury participate less in social activities and have fewer interactions with friends. One reason for this is thought to be decreased mobility and independence. There are a few types of mobility devices an individual with a spinal cord injury may use to socialize, find a job, seek out a higher education, and participate in community activities. For mobility individuals with a spinal cord injury may use a manual chair, electric chair, Public transportation, and drive a modified vehicle. Manual chairs take more energy to navigate around, and electric chairs have a limited amount of battery power to utilize so an individual would be limited in the distance they may travel.

Public transportation is available because of the Americans with Disabilities Act Title II but most individuals with spinal cord injuries were not accustomed to using public transportation before their spinal cord injury and most rural areas don't have public transportation or it is not reliable. According to the National Spinal Cord Database 2004-2006 an individual will have higher levels of participation and a better chance for employment if they obtain the ability to drive a modified vehicle. In a study about individuals with spinal cord injuries and mobility Tsai, I.-H., Graves, D. E., & Lai, C.-H. (2014) looked at type of mobility used can be linked to social interaction of individuals with a spinal cord injury.

The study gathered its information from individual that had rehabilitation for spinal cord injury, had been interviewed by the National Spinal Cord Injury Database, or use a wheelchair at least 40 hour per week. Participates in the study were interviewed had a follow up interview the second year and every 5 years after. Participates in the study ages ranged from 18 to 90 average age was 40 with 78% of the participates being male and the study looked at everything from

education, employment, and what level of spinal cord injury they had (Tsai, I.-H., Graves, D. E., & Lai, C.-H. 2014).

In this study 33 % of participants drive a modified vehicle and 44 % of participants utilize a powered wheelchair. Individuals with spinal cord injuries that drive a modified vehicle were found to have more social interaction and spent more time outside of the home. Individuals that drive a modified vehicle were more likely to be employed (Tsai, I.-H., Graves, D. E., & Lai, C.-H. 2014).

### **Discrimination**

Individuals with disabilities need to be protected from discrimination because employers may interpret the disability inaccurately. This can lead to workplace discrimination because an employer may not understand an individual's impairment. An employer may not understand what the needs of an individual are and terminate the individual unlawfully. Because some employers/people faulty understanding is rooted in a stereotype an individual with a disability may be discriminated against and these actions would be unlawful under the Americans with Disability Act. This study looks at the reliability of outcomes of investigations done by the Equal Employment Opportunity Commission (Draper, W. R., Hawley, C. E., McMahon, B. T., Reid, C. A., & Barbir, L. A. 2014).

In this study only closed allegations were used out of more than 3 million allegations from 1992 to 2008 of Equal Employment Opportunity Commission data. Individual that filed with a disability status as defined by the Americans with Disability Act there was 34,222 allegations. All of these allegations provided the following information age, gender, race/ethnicity, what the issue discrimination was; hiring, firing, harassment, size of business, type of business, and what was the outcome of the allegation. The study looked at what

circumstances are related to the outcome in workplace discrimination allegations (Draper, W. R., Hawley, C. E., McMahon, B. T., Reid, C. A., & Barbir, L. A. 2014).

In the study chi squared automatic interaction detection was used to measure the reliability of the allegations and what circumstance led to the discrimination like firing, reasonable accommodations, etc. The study showed that individuals with disability and those without a disability should have Americans with Disability Act training so that individuals can stand up for themselves and change the behaviors of those in supervisory roles (Draper, W. R., Hawley, C. E., McMahon, B. T., Reid, C. A., & Barbir, L. A. 2014).

Every year there are increasing numbers of people with a disability but employment rates for people with a disability are lower than those without a disability. If individuals with a disability are not employed they may have a difficult time financially, find themselves isolated, and with-out confidence to pursue interest that are meaningful to them. There are many reasons individuals with a disability are not employed. They may fear losing their medical benefits may not be able to work as many hours, may not receive the workplace accommodation necessary to complete their job duties and discrimination from employer or co-workers. In the study done by Purc-Stephenson, R. J., Jones, S. K., & Ferguson, C. L. (2017) looked at research of individuals with disabilities and their employment experiences to understand what is necessary for individuals to be successfully employed.

Methods used for this study started with electronic databases using keywords so that they could narrow the search to just finding data on disability and employment. Studies had to meet certain criteria to be included. Subjects had to have a physical disability be at least 18 or older have found paid employment within the last year. Two reviewers independently using standardized forms extracted the data from the 19 studies. In previous studies the researchers

used the exact words of participants. For example, in Tveito et al (as cited in Pure-Stephenson et al, 2017, p.55):

If you walk into work with your arm in a cast — Oh, you’ve got a broken arm, oh gosh... but when you start talking about — oh God, my back is bothering me — people dismiss it (Retail sales assistant, low back pain; Tveito et al., 2010, p. 2039)

This is because individuals that has an unseen disability felt they had to inform other co-worker of their symptoms and how severe they are. They all so felt their co-workers lacked knowledge of the struggles to manage a disability.

Other participants talked about not having a social life anymore because they would need to manage their disabilities symptoms for medication and therapies. Some would need to rest so that their bodies could recover for the next day. This made finding time for other activities almost impossible. For example a participant in Jakobsen (as cited in Pure-Stephenson et al, 2017, p.55):

“I used to be a social person, who often went to the cinema with friends and colleagues. These days I seldom feel I have energy left.” (Participants details not reported; Jakobsen, 2001, p. 45)

Many of the participants in the study did not want their disability to define who they are. They resisted their disability from becoming their identity because they didn’t want to be seen in a negative stereotype. Participant would not have been motivated to find employment if their disability was their identity. Participant addressed this in their own words in Conyers, Koch, & Szymanski (as cited in Pure-Stephenson et al, 2017, p.55):

“I have had a lot of labels put on me, and I proved a lot of people wrong.” (Participant details not reported; Conyers, Koch, & Szymanski, 1998, p. 7)

A participant added in Noonan et al (as cited in Pure-Stephenson et al, 2017, p.56):

“I don’t really think of myself as disabled, and I was brought up with an attitude that it’s how you can do it rather than ‘you are disabled and you can do it.’” (Investment firm chairperson, blind; Noonan et al., 2004, p. 72)

Another thing many of the participants with disabilities addressed was that work provided them with a purpose and not just financial needs. It allowed them to build relationships.

Employment gave them something else to focus on other than their disability. As reported by Noonan et al (as cited in Pure-Stephenson et al, 2017, p.56):

“I use my work to give me jazz, to give me joy, to give me connection...it keeps me sort of saying, ‘This is worth being here.’” (Writer/teacher, disability not reported; Noonan et al., 2004, p. 76)

Many individuals with a noticeable disability have limited job opportunities. If the individual is in a wheelchair and there is not an elevator to navigate through a building or long hours limiting an individual time to recover for the next work day. They may face rejection before or after the interview because of stigma towards disability. This may force an individual with a disability to accept a position that pays less and is below their skill set. An example of this, Neal-Boylan et al (as cited in Pure-Stephenson et al, 2017, p.56):

I couldn’t get a job. I said I’ll do anything in a doctor’s office. I’ll become a medical anything.... I don’t even care if I don’t work as a nurse. I just wanted to get a job... and applied for the stupidest, craziest jobs. (Nurse, disability not reported; Neal-Boylan et al., 2012, p. 174)

Almost half of the individuals with disabilities in the studies needed work place modifications. They modified equipment, needed parking that was accessible, or changes to the

workplace environment. Many of these individuals worked without accommodations to their work environment because their employers did not think it would be cost beneficial. One individual said, Wilson-Kovacs et al (as cited in Pure-Stephenson et al, 2017, p.57):

“Unlike other diversity families or groups of people, certain ethnicities, sexual orientation, religion or sex, disabled people come with a price tag – to remove doors to let in a wheelchair cost money.” (Health and Safety Executive, eyesight and hearing impairment; Wilson-Kovacs et al., 2008, p. 711

There are policies to assist individuals with a disability to find and maintain employment. One complaint is the information is not easily accessed, the information is vague, and employers may interpret the information differently. These policies may make it too difficult for individuals with disabilities to join the workforce. An example of this, Conyers et al (as cited in Pure-Stephenson et al, 2017, p.57):

If I make too much money, I will lose my medical assistance to pay for my attendant care to get me up to go to work and go to bed at night. I can't afford to pay for attendant care myself, and I'll have to quit my job, which I don't want to do. This inability to accumulate savings makes it virtually impossible to move beyond an entry level position. (Participant details not reported; Conyers et al., 1998, p. 12)

Individuals with a disability want to have peer support from their co-workers so that they can feel accepted. It is difficult in the workplace when there is tension from the co-workers believing that an individual with an invisible disability is taking advantage of the system to receive preferential treatment. For example, Crooks (as cited in Pure-Stephenson et al, 2017, p.58):

What was funny is that I'd take two breaks [during the work day other than lunch] and then they [co-workers] would complain that I was taking breaks. And I said "It actually makes people work better". I'd only take ten minutes, once in the morning and once in the afternoon. I was there 'till 9:00 at night! (Position not reported, osteoarthritis; Crooks, 2007, p. 1111)

Individuals with disabilities would not feel like they are part of the same branch of the department. Making them feel isolated because their supervisors and peers would not understand what accommodations would be necessary, disregarding the individual with a disabilities needs. For an example, Matt (as cited in Pure-Stephenson et al, 2017, p.58):

They decided they were going to have an outing and go fishing on a boat, and I didn't really think that was a good idea for me to do, but wanting to be part of the group, I said I would go but I would just have to sit. She [supervisor] told me not to because of the liability, but I could have a separate day off. It's pretty hard not to be hurt by that. (Nurse, wheelchair bound; Matt, 2008, p. 1530)

Individuals with a disability endure discrimination and stigma long before they get a job. The representative of an employer interviewing may look at a visible disability and begin discriminating against the individual believing the person would not be able to do the work. Getting past the interview is a major hurdle, Magill-Evens, Galambos, Darrah, & Nickerson (as cited in Pure-Stephenson et al, 2017, p.58 ):

"Once I'm in the job, it's okay because I can prove myself, but getting the job, that's the tricky part." (Participant details not reported; Magill-Evans, Galambos, Darrah, & Nickerson, 2008, p. 438)

Many of the participants in the research felt they were only seen for their disability by their colleagues and supervisors. By only seeing the participants for their disability their colleagues and supervisor would all so believe that their physical limitation would develop into mental limitation. For example, Neal-Boylan et la (as cited in Pure-Stephenson et al, 2017, p.58):

I'm angry. The reason [is that] there is no need for this [reaction]. On their initial reviews, [the recruiters] felt as if I was an excellent employee. It appears to me that they are not willing to make accommodations, and they feel as if I'm not going to be productive for 12 hours. I can still solve problems. [I] still have my mind. (Nurse, disability not reported; Neal-Boylan et al., 2008, p. 70)

According to Pure-Stephenson et al (2017), "Stigma surrounding physical disabilities could lead to being passed for promotions or special projects or excluded from social events. This continued behavior negatively impacted PwPDs sense of self-worth and importance." For example, Randolph et al (as cited in Pure-Stephenson et al, 2017, p.58):

"They act like I don't have a brain. After awhile, you start thinking that, too." (Participant details not reported; Randolph et al., 2005, p. 374)

Individuals recognized for their disabilities feel stuck, unable to move up through the company they are working for. They feel socially isolated from company events and not treated as an equal. Most individual's identities are what they do, not what their disability is because your identity gives you a sense of self-worth. Because of this many individuals with a disability will accept positions that are below what they are qualified to do, hoping to prove their self-worth. They may try to manage how others perceive their disability by pointing out the positive things associated with their disability, by doing this they may lessen the discrimination and

stigma others have towards individuals with disabilities (Purc-Stephenson, R. J., Jones, S. K., & Ferguson, C. L. 2017).

## CHAPTER 3

### DISCUSSIONS AND IMPLICATIONS

There are many reasons an individual with a spinal cord injury may want to return to work. Being employed gives a person a feeling of independence because they gain more social support, feel like they are a valued member in society now that they are contributing to it, and it gives them an identity with a purpose (Hilton, G., Unsworth, C. A., Stuckey, R., & Murphy, G. C., 2018). In order for an individual with a spinal cord injury to become independent and rejoin the workforce they need to feel confident and accepted by their co-workers. One way a vocational counselor can try to achieve this is by advocating for the individual and making sure they have what is necessary to complete all tasks to be independent.

After a spinal cord injury an individual's life becomes challenging to complete many of the tasks most people take for granted. Individuals with spinal cord injuries will need physical and occupational therapy but at this time the individual in OT/PT would only be concerned with healing and gaining some what a sense of normalcy in their life. It is usually after they are done with OT/PT that they decide to become more independent and rejoin the workforce.

For an individual with a spinal cord injury they will want some measure of quality of life (Baldassin, V., Shimizu, H. E., & Fachin-Martins, E. (2018)). One way a vocational Counselor can try to assist an individual with a spinal cord injury with quality of life would be to advocating for them to receive the assistive technology because they may be unaware of or cannot afford because they are lower income (Folan, A., Barclay, L., Cooper, C., & Robinson, M. 2015). Advocating so that they can complete daily living tasks and any other tasks that maybe required for them to become independent and hopefully re-enter the workforce.

Looking into what type of a mobility device the individual with a spinal cord injury needs to use for navigating the environment is important because whether the individual use braces or an electric chair the individual may need railings or ramps to navigate their environment (Boninger, M., French, J., Abbas, J., Nagy, L., Ferguson-Pell, M., Taylor, S. J., ... Sherwood, A. 2012). Vocational counselors should all so be informed on what the latest technology is because the individual may not be aware of what is available for financial reasons or market availability (Boninger, M., French, J., Abbas, J., Nagy, L., Ferguson-Pell, M., Taylor, S. J., ... Sherwood, A. 2012). For individuals with a spinal cord injury transportation may not be easily accessed, although public transportation is available in most places, in rural areas it may not be available for individuals that use an electric chair. Electric chair batteries will only last a limited amount of time and manual chair use more energy an individual may need a modified vehicle to travel (Tsai, I.-H., Graves, D. E., & Lai, C.-H. 2014).This should increase the individuals' social activities, being active in the community, and finding employment.

In the workplace individuals with a disability may be discriminated against for many different reasons. An employer shows discrimination towards someone with a disability because they do not understand the individuals' impairment. This may lead to the employer terminating the employment of an individual with a disability unlawfully; this would be against the American with Disabilities Act (Draper, W. R., Hawley, C. E., McMahon, B. T., Reid, C. A., & Barbir, L. A. 2014). If employers and co-workers had training in the Americans with Disability Act so that people in supervisory role would understand what reasonable accommodations is necessary for individuals with disability (Draper, W. R., Hawley, C. E., McMahon, B. T., Reid, C. A., & Barbir, L. A. 2014).

Purc-Stephenson, R. J., Jones, S. K., & Ferguson, C. L. (2017) concluded that individuals are left out of social events and pass up for promotions or special projects because of stigma towards their disabilities. Individuals want their identities to be the position they have at work, this gives them self-worth to lessen the discrimination towards their disability they may speak about the positive things associated with their disability. If vocational counselors advocate on behalf of their clients with spinal cord injuries addressing stigma and discrimination when the need arises it may give these individuals more confidence when seeking out employment. Along with advocating against stigma vocational counselor should stay up to date about what technologies are available for individuals with a spinal cord injury, this may increase motivation to find gainful employment for individuals with spinal cord injuries so that they can become independent.

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