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Impact of professional reorientation of people with Spinal Cord Injury (SCI) in the photo & video production industry

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Abstract

This qualitative research explores the therapeutic effects of photography and video making on the mental health of disabled people, mainly paraplegics and tetraplegics. We will see to what extent the artistic creative process and the professional reconversion might concur to the rehabilitation and integration of people with limited physical capabilities. Furthermore, we will determine how they perceive the experience and whether it generated positive or negative thoughts about the acquired disability. Last but not least, we will try to find out if the artistic process has improved the self-esteem of the subjects, as well as their perceived quality of life.

Although we found that all study participants have low self-esteem, it does not influence their self-image, with the identified traits generally being positive and adaptive. The study also showed that references to manifested disability are very weak, which indicates that disability is not considered to be a defining characteristic for the analyzed group, but just another aspect of personality.

Keywords: Professional reorientation, disability, Spinal Cord Injury (SCI), photo-video industry

Introduction

Spinal Cord Injury (SCI) is a traumatic event that results in the impairment of normal sensory, motor, or autonomic function, and ultimately affects the patient's physical, psychological, and social well-being. The prevalence of SCI was highest in the United States (906 per million) and lowest in the Rhone-Alpes region, France, (250 per million), and Helsinki, Finland (280 per million) (Fehlings, 2014).

Most studies showed a high male-to-female ratio and an age of peak incidence below 30 years. Traffic accidents were usually the most common cause of SCI, followed by fall injuries, the latter mainly in the elderly population. A statistic from the American Association of Neurological Surgeons shows that car accidents are the leading cause of spinal injuries in young people, while falls are the leading cause of spinal injuries in people over the age of 65.

According to the same study, 90% of spine injuries from sports-related accidents occur in men. (American Association of Neurological Surgeons, 2021)

Managing SCI requires significant healthcare resources and can place a substantial financial burden on patients, their families, and the community (Bickenbach, 2013). In addition, people who remain disabled after a trauma face not only the challenges of adapting to new physical capabilities but also to mental health stressors of changing physical status.

Thanks to advances in medical technology, the survival rate in cases of more serious injuries and trauma are significantly higher than in previous decades. Certain functions and sensations may fully or partially return when the inflammation subsides, while some patients recover

spontaneously. In most cases, surgery, together with various types of therapy, can be of real benefit because it improves the long-term prognosis, contributing to an increase in the quality of life by helping the patient to adapt to the new lifestyle.

Recovery after spinal trauma is often a difficult process. Recovery time depends on the severity of the injury. The faster the intervention, the greater the chances of recovery. According to statistics, the most important progress is made in the first six months.

Recovery is also an extensive process, which calls for an interdisciplinary team of medical staff, physiotherapists, psychologists, speech therapists, and occupational therapists who help patients gain their independence. The process itself comprises a personalized program of physical exercises, as well as a mental and emotional component that helps patients accept the new status, the loss of independence, and the financial impact produced by the disability.

The long-term goals of people with SCI should focus on social integration rather than impairment, mainly through employment. Article 27 of the Convention on the Rights of Persons with Disabilities (CRPD) of the United Nations stipulates "the right of persons with disabilities to work on an equal basis with others; this includes the chance to earn a living through a job freely chosen or accepted in a labor market and in an open, inclusive, accessible work environment for people with disabilities" (United Nations, 2006).

The multitude of difficulties they face discourage many people with disabilities from entering or remaining in the labor market and, in the context of a difficult labor market, from pursuing vocational or higher education. (International Labour Organization (ILO) & OECD, 2018). People with SCI are less likely to be employed than people without disabilities and often have lower incomes (Bickenbach, 2013). Employability, functionality, and social support from colleagues and employers are crucial in any discussion of labor market barriers and facilitators.

In the United States, studies had shown that minimally disabled highly educated males whose pre-injury jobs required only mild to moderate physical abilities and who followed a retraining program have returned to work (Tomassen, 2000). According to the same study, only 25% of people who were doing heavy physical work and 21% of those performing strenuous tasks before their injury regained their jobs (Tomassen, 2000).

Subjects with spinal cord injuries more often choose jobs involving computer work and less manual or heavy work. Men had the highest employment rate, but gender differences were dependent on cultural and social norms (Levi R., 1996). In the last decades, access to information and technology has increased massively, while the labor market has been dominated by service/information providers to the detriment of the manufacturing industry. Digital skills are currently an asset with a high degree of employment predictability for people who have suffered a SCI. The higher the level of training, the more chances for a positive employment outcome

Through educational programs and policy changes, society has gradually managed to remove negative stereotypes about people with disabilities. At the same time, there was also a growing concern for career and skills education noted by specialists in the field.

Considering that the road to a complex recovery must also address the well-being of the mind of people with paraplegia and tetraplegia, therapeutic recreation can be an effective method in their physical and mental recovery due to a pro-active involvement which is generally associated with improving the quality of life.

In this context, the camera seems to have the therapeutic effect of an escape due to the focus on artistic expression. Psychologist Judy Weiser (1993) uses the term phototherapy to describe the effect photography has on people. Photography has subsequently been shown to be useful in

combating depression, stress, phobias, anxiety, traumatic experiences, lack of concentration and motivation, and low self-esteem (Weiser, *PhotoTherapy Techniques in Counseling and Therapy: Using Ordinary Snapshots and Photo-interactions to Help Clients Heal Their Lives*, 2004).

This type of therapy could be independent or under the guidance of a specialist. Research conducted by Lancaster University confirmed that the daily routine of making and posting images online improves the quality of life of respondents in terms of socialization and self-care (Brewster, 2018).

Phototherapy is complex and not limited to photography itself, but also includes other interactive activities, such as prospecting, planning, and imagining photo frames and their composition. The images captured with the help of the camera, as well as their editing and posting in the online environment, help the patients face the mental challenges they deal with, due to the creativity involved in the whole artistic process.

The act of using the camera has a calming and meditative effect, as it involves deep concentration. Meanwhile, posting is controlled communication, keeping a safe distance. During the process of creating something new from scratch, the brain trains and develops new connections, and dopamine is released, which in turn produces pleasure.

Last but not least, the camera captures aspects that allow patients to reflect on sensitive topics for them, which are difficult or impossible to talk about. This kind of practice facilitates communication with others, making it more comfortable, and increasing mental resistance. (Lozhko, 2021).

Method

The purpose of this case study research is to see to what extent professional reorientation can influence the well-being and self-image of people with acquired physical disabilities, especially those with SCI, through the therapeutic qualities that photography's artistic nature entails. We also hypothesized that the level of self-esteem influences the self-image of people with SCI and also that vocational reorientation has effects on the well-being of people with disabilities if it involves some form of artistic expression.

Participants

The research was carried out on a number of 5 participants (one female, four male) age between 29 and 48, with paraplegia and quadriplegia (following spinal trauma), integrated into the labor market following professional reorientation. They reside in Canada, USA, Australia, and Switzerland and work in the photo & video production industry

E.W. is a Swiss citizen, photographer, and graphic designer. At the age of 18, following a motorcycle accident, he was left in a wheelchair. He tried several activities throughout his life but, almost every time, he felt disadvantaged by his condition, except for photography. It became a passion, a form of expression, the thing that motivated him, and eventually became his vocation. Now, at 29, he has his own business, a website through which he sells his creations. He confesses that his passion for photography has made him visit extraordinary places and pushed him out of his comfort zone, even though he is quadriplegic. E.W. says his photos do the talking, but none of them say "wheelchair".

D.T. is a Swedish citizen who suffered a stroke 13 years ago, after a chiropractic session, followed by a second stroke the next day. This was just two weeks after his wedding. His daughter was three years old at the time. After the accident, D.T.'s life expectancy was 10%. He is currently 42 years

old and lives in San Diego, United States. He still has severe mobility restrictions, uses a wheelchair, and can no longer speak. Although he is severely restricted by his condition, he has no other health problems. He has published several books on various topics, the first being about his experience with the Swedish medical system and his own perspective on disability. He took up photography and traveled around the world following his passion. He is a loving father and confesses that the hardest part is that he can only talk to his family through the keyboard.

P.W. has been preoccupied with art since childhood: sculpture, painting, and photography, all of which she practiced throughout her career. Almost ten years ago, while on vacation, she jumped into shallow water from a great height and suffered spinal trauma. P.W. says that she was aware she couldn't move her hands, her neck, and the rest of her body and that she was going to drown. She was saved at the last moment. The trauma she suffered was severe and left her partially paralyzed. She's been using a wheelchair ever since. P.W. currently owns an art gallery. After the accident, she focused more and more on photography. Since then, she's also given up drugs, alcohol, and cigarettes. P.W. is still doing physical therapy.

A.L., a Canadian citizen, was 22 years old when an absurd accident changed his life forever. A twist in a hammock at a campfire left him a paraplegic. He twisted his legs, which went over his head, and A.L. heard a loud crack, after which he was unable to move. When he arrived at the hospital, the doctors told him that he would never be able to walk again. He spent the next few months in the hospital where he began to adjust to his new "normal". Now he looks at life from a new perspective. With his positive attitude, A.L. transformed a nightmare with the help of a newly discovered passion. He owns a website and does drone photography, filming incredible scenes of surfing or skating and other sports that he practiced not long ago. He also makes videos for fundraisers for the benefit of those in need. He wanted to become a professional photographer, so he went back to school to hone his new skills. Always with a smile on his face, and a camera attached to his wheelchair, A.L. inspires the people around him.

E.R. is a paraplegic photographer from Australia. 20 years ago, he was the victim of a road accident resulting in a cervical spine fracture. As a child, he dreamed of becoming a professional motorcyclist, but the accident ended his career. When he was young, he liked to spend his time taking pictures with his father, who was a hobbyist. E.R. decided to follow this path and became a professional photographer, participating in exhibitions and selling his creations on the Internet.

Applied tests

The variables measured are self-image, self-esteem, the need for integration into the labor market, and the level of professional satisfaction. This research is qualitative in nature and is based on a case study. Thus, we applied the following tests: the Sorensen test (self-esteem), a job satisfaction assessment questionnaire, and the psychological test "Who am I?" (James F. T. Bugental, Seymour L. Zelen).

Results

We assumed that the level of self-esteem influences the self-image of people with SCI. To verify this hypothesis, we synthesized the data regarding self-esteem following the application of the Sorensen test.

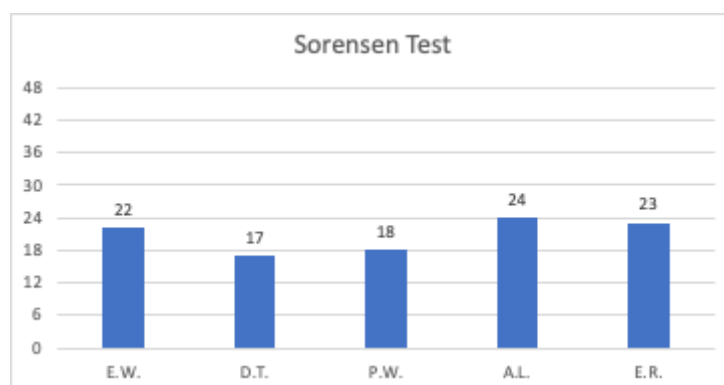


Fig.1. Distribution of Sorensen test scores

According to the final scores, it appears that three of the subjects have low self-esteem and the other two have moderately low self-esteem.

Next, we tried to analyze the content characteristics of the identity of the people who participated in our study. In order to achieve this, we placed the participants' statements in order and marked the negative self-perceptions and the position in the content structure of the "Who am I" test.

Table 1. Subjects' responses to the "Who am I" questionnaire

Who am I?	E.W.	D.T.	P.W.	A.L.	E.R.
1.	A man	David	Human	A good man	A photography enthusiast
2.	Un graphic designer	Elle's father	Woman	Someone who's good at their work	A forward thinker
3.	A photographer	Not an astronaut	Mother	Not my father	A wise person
4.	An optimist		Wife	Someone who's passionate about work	Ugly
5.	A learner		Daughter	Someone who's at times too fearful and anxious	Unattractive
	8. Dependent on a wheelchair		13. Disabled		A good human being

In 4 out of 5 cases, the participants' self-identity perceptions have a positive and appropriate content. Although personal identity predominates, the correlation of social roles and individual characteristics shows how important it is for the analyzed participants to belong to a certain group of people, a community.

We also note the weak references to physical identity, with one participant attributing a higher ranking to the related characteristics. References to manifested disability are also very weak (only

in positions 8 and 13) in two of the participants, which denotes that disability is not considered a defining characteristic, but just another aspect of personality.

In conclusion, although we found that all participants have low self-esteem, this does not influence their self-image, the identified traits generally being positive and adaptive.

For all 5 subjects participating in our study, the acquired physical disability has determined profound changes in the reality of everyday life, with professional reorientation proving to be an extremely important aspect of it.

By means of a workplace satisfaction assessment questionnaire, we tried to identify the perceptions and perspectives that people with acquired physical disabilities have in relation to their previous and current workplaces.

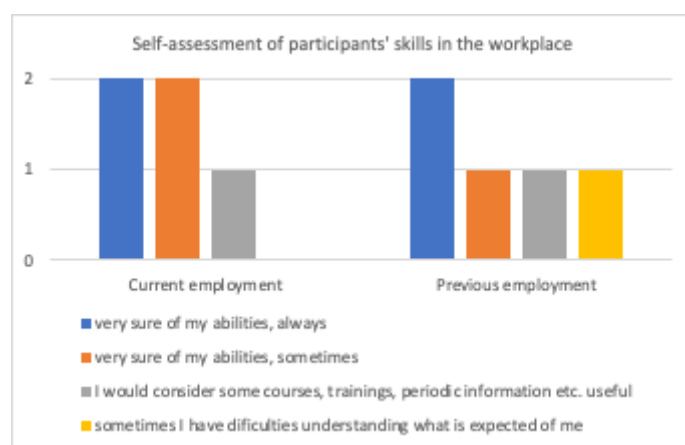


Fig.2. Perception of self-assessment of skills at work

Regarding the self-assessment of skills at work, increased confidence in one's own skills is observed in the present career compared to one before acquiring the disability. Moreover, no participant currently reported uncertainty about job demands.



Fig.2. Perception of workplace stress

When it comes to the assessment of stress levels, only one participant reported a higher stress level now than in their previous employment. The graph above shows that the reported level of stress has decreased significantly for the vast majority of those surveyed. 80% of the participants

answered that they feel more relaxed than stressed while, in their former employment, this percentage was only 20%. 60% of the participants evaluate their employer or their own business favorably compared to other employers of the same profile.

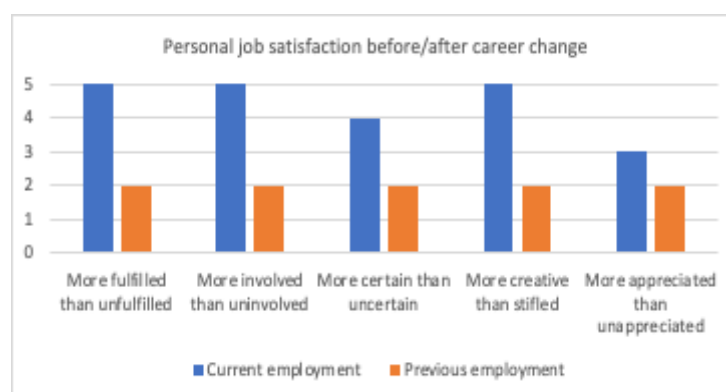


Fig.2. Perception of job satisfaction

In the above graph, we see that all participants currently have a significantly increased level of job satisfaction on several metrics, including motivation, involvement, and creativity, all of which are strong indicators of both their productivity and their well-being. At the same time, participants reported an 80% increase in motivation compared to the same period last year.

When we consider the reported improvements in the areas of creativity, motivation, and involvement, we find that there have been significant performance differences following the change in career for most participants. Based on the analyzed data we can conclude that professional reorientation has effects on the well-being of people with disabilities if this involves some need for artistic creativity.

Conclusion

This study investigates the significance of vocational reorientation in photo-video production and processing by people with acquired physical disabilities, namely spinal cord injuries (SCI).

There is a misconception that people with disabilities are unable or unwilling to work, thus becoming a burden on taxpayers (Bratu & al, 2012). In reality, these people want to work and have to do it, on the one hand, because it helps them earn a living, and on the other hand because work gives them a status that contributes to high self-esteem. Paid work becomes a means of covering the additional costs associated with disability. Not having a job leads to poverty and despair because people with disabilities generally have little opportunity to socialize. Work offers such opportunities, reduces frustration, and social isolation, increases self-esteem and confidence in one's own possibilities, and, last but not least, creates positive attitudes.

Most people with SCI want to work but they need support, training, and vocational rehabilitation services to help them get and keep a job. These sources of support can help overcome many barriers that are beyond the individual's control, such as financial and healthcare issues, affordability, and employer attitudes. Work is important to people not only because they can earn an income and receive health insurance and other benefits, but also because it gives them opportunities to interact with others and improve their self-esteem and overall satisfaction in life.

For all participants included in the research, employment was considered an important aspect of participation and integration in society.

We have identified several functions that employment fulfills for people with SCI. Employment is important because it allows for income to be obtained, ensuring financial autonomy. It is also important for their personal as well as collective identities, in terms of recognizing people with SCI as full members of society and in terms of individual self-respect. Although we found that all study participants have low self-esteem, it does not influence the self-image, the identified traits generally being positive and adaptive. The study also showed that references to manifestations of the disability are very weak, which indicates that for the analyzed group disability is not considered to be a defining characteristic, but just another aspect of personality.

Participants have a significantly increased level of job satisfaction on several metrics, including motivation, engagement, and creativity, all of which are strong indicators of both their productivity and well-being.

Although people with SCI can and continue to have active work lives and successful careers, they have more barriers to overcome than those without disabilities.

Making photos or videos has a huge potential that is worth exploring, especially for people with disabilities, due to the therapeutic qualities it produces. We first noticed this during photography workshops where we worked with disabled children.

People with acquired physical disabilities face both the challenges of adapting to new physical capabilities and the mental health stressors of changing physical status. But we note that the concept of health has evolved in recent decades and the rigid biomedical model has been replaced by a new model that looks at the person as a whole.

The video camera, with all that it implies, both at the level of fine motor skills and at the level of creativity, facilitates communication on an emotional level. This activity can become more than just a hobby, it can become a way of making art. It also brings to the surface special abilities and hidden potential that were not manifested before the acquisition of the disability.

Although research on the effect of the creative process on mental health in people with acquired physical disabilities is limited, this topic would have a high potential for further research conducted with a larger number of subjects.

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