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## The lived experience of employed patients with spinal cord injury following vocational rehabilitation

### ABSTRACT

**Background:** Vocational rehabilitation creates many employment benefits for patients with spinal cord injury. Benefits that include restored self-esteem, lower impact of medical conditions and related complications, promotes well-being and facilitates the safe and timely return of patients with spinal cord injury to work following injury, to name a few. Despite its benefits vocational rehabilitation remains underutilized due to barriers such as inadequate follow up, limited employer engagement and vocational rehabilitation services are often unavailable, inaccessible to or unfamiliar to patients with spinal cord injury. The aim of the study was to describe the lived experiences of employed patients with spinal cord injuries who had received vocational rehabilitation in Gauteng, South Africa, focusing in its effectiveness, challenges and impact on workplace reintegration.

**Method:** A descriptive phenomenological qualitative method was utilized. Through purposive sampling ten individuals with spinal cord injury who received vocational rehabilitation, were selected. Individual interviews were conducted using a semi-structured interview guide. Interpretative phenomenological analysis was used to analyse the data.

**Results:** The Person-Environment-Occupation-Participation (PEOP) model was used to extract themes. The ten employed patients with spinal cord injury, reported how they benefitted from vocational rehabilitation as well as the challenges they experienced upon return to work. The benefits included (1) overcoming challenges in the workplace, (2) positive effects on employment and (3) financial independence. Participants stated that (4) absenteeism, (5) promotion opportunities and (6) recognition remained challenging.

**Conclusion:** Vocational rehabilitation, specifically the return-to-work aspect, plays a significant role in terms of the employment of patients with spinal cord injuries. Findings highlight the need for structured follow-ups, employer collaboration, and enhanced accessibility measures to optimise vocational rehabilitation outcomes.

### Implications for practice

- Occupational therapists should contribute through providing education on reasonable accommodation (job adaptations, accessibility and workplace modifications) to employers or potential employers, for reintegration into the workplace
- Occupational therapists can identify physical and psychosocial barriers that they can address by means of therapeutic interventions
- For a successful return to work the occupational therapists need to collaborate with other interprofessional team members
- With the continuous involvement of the occupational therapists after job placement, challenges can be addressed for job retention and job satisfaction. A comprehensive return to work programme, provided by Occupational Therapists, that improves employment opportunities for individuals living with spinal cord injuries, is highly relevant.

## BACKGROUND

Spinal cord injury (SCI) is a severe type of traumatic injury with long-lasting negative impacts on health status, functioning, and participation (for example on employment and community participation), personal goals and expectations<sup>1</sup>. The employment rate of patients with spinal cord injury decreases drastically after their injuries<sup>2</sup>. Diminished physical capacities, inability to get around and carry out daily routines, and feelings of confusion and despair are coupled with loss of gainful employment and the ability to return to home or to work occupations<sup>3</sup>. Rehabilitation programmes, aim to enhance adjustment to life by equipping the patients with SCI, as well as their family and friends with vocational and life skills and suggest resources required for community reintegration<sup>4</sup>. An essential aspect of rehabilitation is the vocational rehabilitation process that aims to return SCI patient to work and /or obtaining or securing employment.

The first author has experience of working with patients with SCI, as a case manager, in a rehabilitation setting, and observed a high unemployment rate amongst her patients. Many patients with SCI could not return to work due to their age, severity of injury, work experience, and other reasons not identified. The majority of her patients with SCI had received vocational rehabilitation, however, they remained unemployed. Statistics South Africa<sup>5</sup> reported that 8 out of 10 people living with disabilities in South Africa were unemployed. Unfortunately, there are no recent statistics in South Africa specifically on SCI. However, a study done by Joseph et al.<sup>6</sup> estimated that approximately 75.6 per million people in South Africa are living with spinal cord injury. Patients with SCI who were previously employed have difficulties returning to the gainful employment whilst those who suffered SCI and were unemployed, remain unemployed<sup>1</sup>.

Vocational rehabilitation comprises different intervention types for instance; job readiness training, employer mediation, and workplace modifications), preventing complication and additional disability, return to-, maintain employment or find work<sup>7</sup>. In Gauteng's public healthcare vocational rehabilitation offered by occupational therapists in is an essential service, as the province is the hub of the country's commerce and industry<sup>8</sup>. It is home to 30% of South Africa's total population; its age distribution shows that 73% of this population is of working age<sup>8</sup>. Injured workers, especially manual labourers, access occupational therapy services through public healthcare facilities. Occupational therapy vocational rehabilitation services bridge the gap between health institutions and the labour market<sup>8</sup>. Patients with spinal cord injuries expressed being able to return to work or find work as an important need, however the efficiency and scope of vocational rehabilitation offered by occupational therapists in public healthcare was problematic due to lack of coordinated services<sup>8</sup>. An effective occupational therapy vocational rehabilitation service can ensure the transition between injury and disability and return to optimal functional ability in a work sphere<sup>9</sup>. There is, therefore, a need for well-coordinated vocational rehabilitation services that will promote the employment of patients with SCI in Gauteng<sup>9</sup> which prompted this research.

The Person-Environment-Occupation and Performance (PEOP) Model<sup>10</sup> was used as the framework for the study. Occupational performance is shaped by the dynamic interdependence of person, environment and occupation interacting over time<sup>10</sup>. These four dimensions are represented by three interrelated circles, with occupational performance being at the centre. The quality of the person's experience, with the level of satisfaction and functioning, is the outcome of the fit between the person- environment and occupation interaction<sup>10</sup>. In this study, the *person* is the patient with SCI characterized by the individuals age, race, level of education, gender, severity of injury, health status and occupation. The *environment* is the surroundings in which everyday occupations occur. The environmental factors can either facilitate or be a barrier to the patient with SCI. The characteristics that form barriers of the environment includes negative attitudes, inaccessible transport and public buildings, and limited social

support, availability of vocational rehabilitation services and resources<sup>10</sup>. *Occupations* is everything people do to occupy themselves for instance Activities of Daily Living, leisure, social participation and work<sup>10</sup>. Occupation in this study mainly focuses on employment, and how the person with spinal cord injury can contribute to the society and country's economy.

Vocational rehabilitation is a process resorted to in order to overcome the barriers an individual faces when accessing employment, maintaining employment or returning to work, following injury, illness or impairment<sup>9</sup>. The vocational rehabilitation process includes the procedures introduced to support the individual and/or employer or family and carers, to help to access vocational rehabilitation and to practically manage the delivery of vocational rehabilitation<sup>11</sup>. Guided by the above explanation, the primary goal of vocational rehabilitation is to assist patients with SCI to gain or regain their independence through employment or some form of meaningful activity and contribute to reintegration into society<sup>12</sup>.

The four main benefits of vocational rehabilitation following disability namely: firstly, an understanding of existing barriers, secondly to facilitate the patient's effective use of personal and environmental resources, thirdly to assist individuals in adapting to the environment; and fourthly providing recommendations to change the environment in accommodating the needs of the individual for career, personal, social and community adjustment<sup>13</sup>. Patients with SCI may experience problems of vocational decision making due to lack of information about employment opportunities, uncertainty about vocational and educational abilities, lack of knowledge of occupations and uncertainty in other areas of life<sup>14</sup>. The vocational goals should, therefore, be incorporated into the total rehabilitation plan, with provision of vocational counselling and information as needed by patients and their families<sup>15</sup>.

The Constitution of the Republic of South Africa Act 108 (1996)<sup>16</sup> stipulates that all South African citizens, including patients with spinal cord injury, are equally entitled to the rights, privileges and benefits (including employment) of citizenship. The Employment Equity Act provides a guideline for employers and employees on promoting equal opportunities and fair treatment of patients with spinal cord injury<sup>17</sup>.

The important stakeholder, when returning to the work environment or gaining employment is concerned, is the employer. According to Soeker, Wegner and Pretorius<sup>18</sup>, the main challenge of employers employing people with disabilities in South Africa including people with SCI, is providing reasonable accommodation. The South African Department of Public Service and Administration<sup>19</sup> explains reasonable accommodation related to job performance to include improving accessibility, adapting work schedules, acquiring alternative equipment, alternative employment, appointing assistants for job-related task, reserved parking spots and allowing the use of assistive devices. The employers are not keen to employ patients with SCI as changing the work environment is deemed as unduly hardship. However, a study by Maja et al<sup>20</sup> reports that in South Africa the cost of accommodation is no longer about money spent on reasonable accommodation, but rather about time and effort spent trying to change attitudes towards people with disabilities.

Benefits of employment after SCI are multiple and well documented in literature, with productivity and employment being consistently associated with life satisfaction and adjustment<sup>20</sup>. Inconclusive reporting and differences between workplace settings for individuals with SCI make conceptualizing return to work rates among this population inherently challenging<sup>21</sup>. Only 12% of patients with SCI who were employed prior to injury, returned to their pre-injury professions<sup>21</sup>. It is however, noted that there is a limited database and statistics for patients with SCI across South Africa, regarding return to work. Return to work after SCI; however, is a complex, multifactorial process that is influenced by individual, social, economic and work-related factors, and not only related to medical health factors<sup>21</sup>. There is a positive relationship between employment status and life satisfaction and adjustment after spinal cord injury<sup>22</sup>. Although well over a hundred research papers have

examined psychological adjustment to SCI, few rehabilitation professionals have directed their attention to addressing factors that may influence patient's abilities and opportunities to become fully productive members of their families, communities and society as a whole<sup>23</sup>. Individuals who have a SCI and were employed post-injury mentioned requiring fewer medical treatments, completed more years of education, were more satisfied with their lives, and rated their overall adjustment higher than individuals who were not employed<sup>24</sup>. This study aimed to explore and describe the lived experiences of employed patients with spinal cord injury following vocational rehabilitation, in this regard.

## METHOD

### Research design

A qualitative study approach, specifically descriptive phenomenological qualitative method, was selected to understand the experiences of employed patients with SCI, who received vocational rehabilitation as an intervention to return to work<sup>25</sup>. Qualitative data were collected through individual interviews, with ten employed patients with SCI.

### Participant selection

The first author approached the spinal cord rehabilitation facilities in Gauteng (both public and private) and was given access to the database by clinical managers, to recruit patients with SCI who were legible for the study. The study included participants who met the following criteria: any gender, of working age (age of 25 to 48 years) and who received intervention services for instance work preparation and readiness, work guidance, workplace accommodation and other return to work efforts. The study excluded participants with cognitive problems, for instance, head injuries, or those with an inability to communicate. Purposive sampling was used to recruit ten patients who met the inclusion criteria, to participate in this study.

The author, with the assistance of the administrative staff at the spinal cord rehabilitation facilities, were able to contact the outpatients and briefly outline the aim of the study and invited to take part in in-depth interviews. Appointments were scheduled with the interested outpatients, either at the rehabilitation facilities, place of employment or at their homes. Upon contact consent forms were signed.

### Data collection

An interview guide was developed to address the aim and objectives of the study, with questions based on existing literature<sup>25</sup>. The interview had 5 questions (Fig. 1, below):

#### Interview Questions

- Personal, medical and employment background
- What factors do you think may have an impact on the employment of patients with SCI?
- What are your personal views regarding the benefit of vocational rehabilitation to return patients with SCI to work?
- Tell me about your experiences when you obtained employment after receiving vocational rehabilitation as an intervention.
- What challenges do you face in relation to your current employment due to the fact that you have a SCI?

Figure 1: Interview questions

A pilot study was conducted to test the logistics of the interview guide, by interviewing three participants. The first author conducted individual interviews with 10 participants until data saturation was reached<sup>26</sup>. The location where the interviews were conducted were accessible to the participants. The duration of the interviews conducted ranged from the shortest being 30 minutes to the longest being 45 minutes. All interviews were audio-recorded.

## Data analysis

The interpretative phenomenological analysis was used. The focus of the analysis was to understand the lived experiences of vocational rehabilitation of employed patients who sustained spinal cord injury. Interviews were transcribed verbatim. Transcripts were translated to English prior to analysis. Bracketing was used to set aside authors' own biases and assumptions to better understand the participant's unique perspectives<sup>27</sup>. The author looked at all the transcripts' data<sup>28</sup> to identify patterns and themes. In order to come up with the themes, the author used deductive coding and was guided by the Person-Environment-Occupation and Performance (PEOP) Model<sup>10</sup>, with the themes drawn from the constructs in the model. Coding was used where data were coded with a word or a phrase that remained close to the data. Coding proceeded to a process of constant comparison of codes and merging of codes where they reflected the participants' experiences and opinions. Coding themes were continuously discussed by the author and co-author to reach consensus.

## Trustworthiness

To check the trustworthiness of the coding, the author submitted the draft to the co-author for agreement. The co-author coded the information independently, and concurrently codes were compared to ensure that all the provided data were included, in order to come up with well-grounded themes, categories and subcategories. To ensure credibility the first author conducted a preliminary study with three individuals. Three occupational therapists, who are experts in the vocational rehabilitation field were asked to look at the data collected during the pre-test interviews. The data were critiqued by the three occupational therapists and the feedback that was provided enabled the author to refine the interview guide. Dependability was ensured as the author reported the research methodology and the implementation in detail, describing what was planned and executed. To ensure confirmability findings in the research was based purely on the responses of the participants. Transferability was ensured by providing detailed descriptions of the participants and methodology to outline practical application in other contexts.

## Ethical considerations

The protocol was submitted to the School of Health Care Sciences Research Committee (SRC), ethical clearance and approval was obtained from Sefako Makgatho Health Sciences University Research and Ethics Committee (SMUREC/H/234/2015:PG). The ethical principles of the Republic of South Africa Department of Health's: Ethics in Health Research<sup>29</sup>, were followed before, during and after the study. The participants' interests were protected by considering beneficence and non-maleficence as well as autonomy, justice and confidentiality. Permission to collect data was obtained from four hospitals. Confidentiality and anonymity of participants were maintained by using pseudonyms. Participants were invited for voluntary participate. Participants provided informed consent for participation in the study and audio recording of interviews. All transcripts and information gathered during the individual interviews were saved in a password protected computer.

## FINDINGS

The details of the participants who were interviewed can be found on Table I (page 4). The study included six males and four females, between ages of 25 and 48 years and had received vocational rehabilitation as an intervention to return to work. The majority of the participants' SCI resulted in paraplegia (nine complete lesion and one who had an incomplete lesion). The participants had post high school qualifications, were employed fulltime at the time of the interview and performed administrative duties. All ten participants were previously employed. Two participants required reasonable accommodation and were provided with alternative jobs as they could no longer perform their pre-SCI occupations.

Table I: Participants demographics

Pseudonym	Age	Gender	Race	Marital status	Type of SCI	Cause	Occupation
Amogelang	30	Female	African	Single	Complete paraplegic	Fall	Financial accountant
Bontle	32	Female	African	Single	Complete paraplegic	MVA	Self-employed-tax returns, financials etc.
Calvin	43	Male	African	Married	Complete paraplegic	MVA	Administrative clerk
Donald	48	Male	Coloured	Single	Complete paraplegic	Gunshot	Self-employed-NGO
Ernest	42	Male	African	Single	Incomplete paraplegic	MVA	Lecturer
Folang	45	Female	African	Single	Complete paraplegic	Gunshot	Narrative assessor
George	25	Male	African	Single	Incomplete quadriplegic	MVA	IT practitioner
Habedi	38	Male	African	Married	Complete paraplegic	MVA	Lecturer
Idah	42	Female	White	Married	Complete paraplegic	Fall	Administrative clerk
Jwaneng	35	Male	African	Divorced	Complete paraplegic	Assault	Retail

**THEMES, CATEGORIES AND SUB-CATEGORIES**

The themes were based on the Person- Environment- Occupation and Performance (PEOP) Model. As can be seen in Figure 2 (below), each theme has accompanying categories and sub-categories derived from the data.

**THEME 1: Person**

Person is defined by the PEOP model as a unique being who assumes a variety of roles simultaneously<sup>30</sup>. The person brings a set of attributes and life experiences described as occupational performance, including

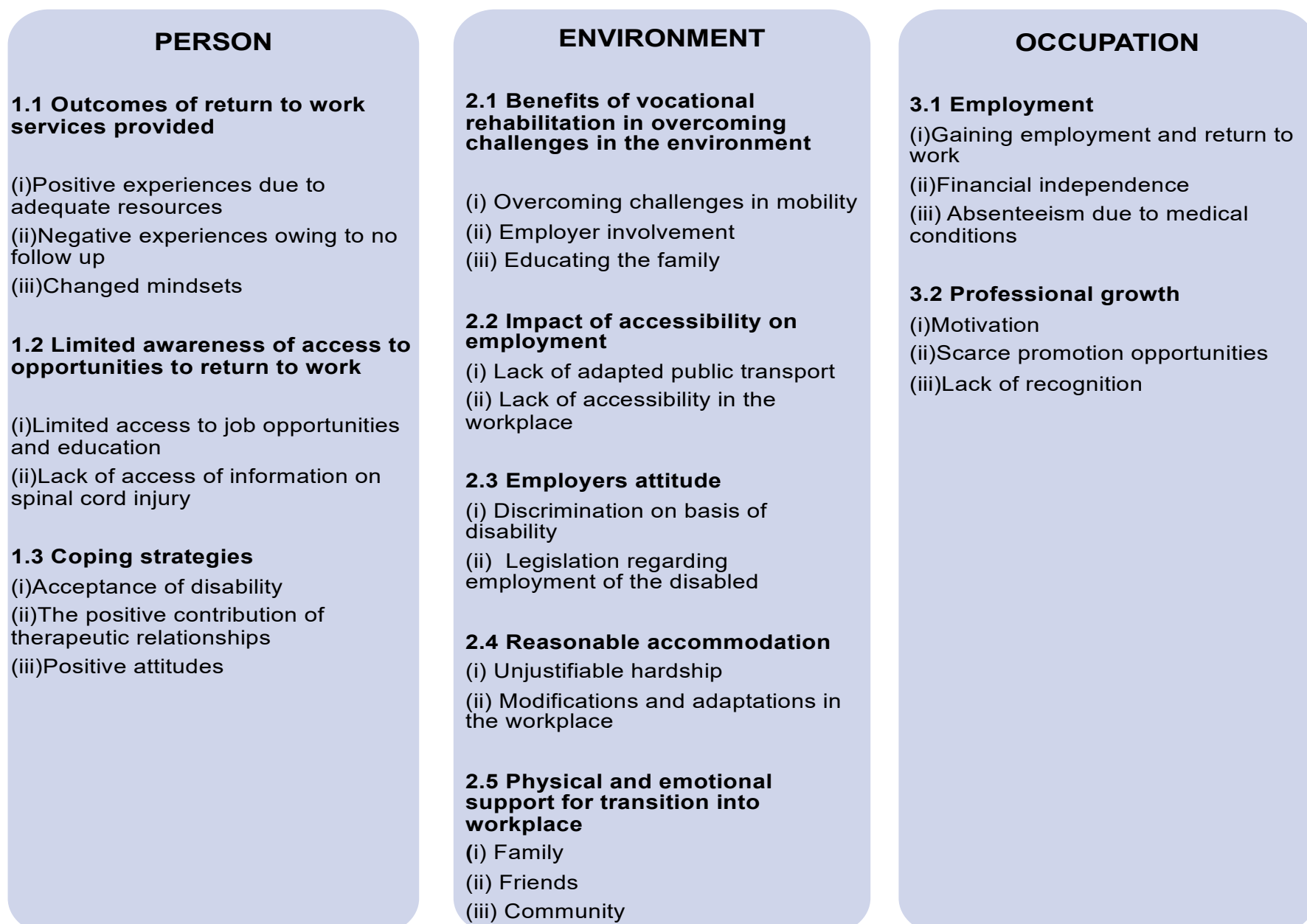


Figure 2. Themes, categories and sub-categories

self-concept, personality style, cultural background and personal competencies. The person with SCI incorporates abilities related to motor performance, sensory capabilities, cognitive aptitude and

general health<sup>30</sup>. In this study these categories were participants' experiences, awareness and coping strategies

### Category 1.1: Outcomes of return-to-work services provided

#### (i) Positive experiences due to available resources

The majority of participants had a positive experience of their vocational rehabilitation journey prior to their return to work. They felt vocational rehabilitation provided them with resources that can equip them to return to work.

*"Vocational rehabilitation helps you with your emotion[al] capabilities, [and] your physical capabilities. The help that you receive from the vocational rehabilitation will help you and enable you to meet the world.... This also helps in terms of going into an employment area, to meet other people as well. So they [occupational therapists] provide you with the necessary resources that can equip you to go into the work industry." (Amogelang)*

#### (ii) Negative experiences owing to limited time spent and no follow up

However, there were participants who had negative experiences. They expressed dissatisfaction with the short time spent in vocational rehabilitation and inadequate follow up.

*"I wish work rehabilitation was for a longer period .... you can't go through training in a short space of time. After voc rehab [vocational rehabilitation] there is no follow up." (Bontle)*

#### (iii) Changed mindset

Vocational rehabilitation also changed their mindset or perception towards the need for independence in the work environment versus the home environment.

*"I will say it assisted me to be independent ....so it assists you to also to have a changed mindset. You should know that now you are at a different environment from your home, where maybe at home you are used to having a person or people who are helping you like family members." (Folang)*

### Category 1.2: Limited awareness of access to opportunities to return to work

Participants were of the view that it would be difficult for a patient who was unemployed prior to SCI to secure employment due to this limited awareness of access to employment opportunities. The subcategories that were identified were lack of knowledge, education, access to information and resources.

#### (i) Limited access to job opportunities and education

Participants indicated that after sustaining a SCI a person lacks the knowledge of finding out about employment opportunities and how to improve their educational status. Patients with SCI's who are less educated have difficulties in securing employment or returning to their pre-SCI employment. Technology is currently used in seeking information and employment, and there are those who lack access to these facilities, due to their socio-economic status.

*"It could also be issue of awareness of job opportunities out there .... like where to go, such a place whereby you can contact them and then they can look for work for you, like [for example] in*

*terms of school [education] that how far did they go in their schooling and there are still chances that they can still go to school." (Calvin)*

*"Nowadays, you get many jobs that are advertised they will tell people to apply via online and other people cannot access that,*

*they don't have computers and then some even if they can go to internet cafes, they don't have money to go there." (Folang)*

#### (ii) Lack of access of information on spinal cord injury

Participants identified lack of information about SCI on social platforms like television, social media and radio. The available information is only available to those who know. The participants were of the view that there is no information with regards to where patients with SCI can liaise with other patients for support and where to seek assistance.

*"Like you never hear information about spinal cord injury on TV. You never hear of them on radio. Even on social media it doesn't get spoken of that much except like on social media there are groups, the groups are existent but they are limited to those who know. Those who don't know they don't have that information and that's where I think the problem is." (Calvin).*

### Category 1.3: Coping strategies

Coping can be defined as constantly changing behavioural and cognitive efforts made by the individual to cope with stressful events and plays an important role in the adaptation process following SCI<sup>1</sup>. The subcategories that were identified were acceptance of disability, positive contribution of therapeutic relationships and positive attitudes.

#### (i) Acceptance of disability

The participants shared how receiving vocational rehabilitation assisted in coping with their disability, and how most needed time to adjust well.

*"It was very difficult for me just to come to terms with how my life has changed. So, in a way vocational rehabilitation has counselled me in accepting the situation that I am in. Just knowing that there is still life even when you are sitting on a wheelchair." (Bontle).*

#### (ii) The positive contribution of therapeutic relationships

Participants indicated that their relationship with the occupational therapist rendering vocational rehabilitation contributed to their ability to adjust and adapt.

*"Looking back, 10 years ago, it was a struggle but luckily with vocational rehabilitation, especially, the therapist they did help me a lot, to adjust, and to accept the current situation." (Calvin)*

#### (iii) Positive attitudes

One of the participants stated how being disabled, and having received vocational rehabilitation, has indirectly made him more confident and ambitious about life.

*"My confidence as a result of counselling through vocational rehabilitation helped me as I was motivated and even more ambitious. I want to work harder than I used to. I'm avoiding to pity myself. This is a condition I'm going to die with. I've accepted it, counselling helped me. And employment [My employer] and my colleagues have to accept me for what I am because I'm proud about myself." (Habedi)*

Every person has a unique experience depending on their knowledge, access to job opportunities, information, attitudes, support system and

coping with SCI. Professional therapeutic relationships were highlighted as the tool that ensured that patients with SCI were able to acclimatise to the changes brought about by SCI.

## THEME 2: Environment

Physical environment consists of natural and built non-human surroundings and the objects in them. Natural environment includes the geographic terrain. Social environment includes availability and expectations of significant individuals, such as friends, spouse and caregivers and relationship with systems, for instance, political, economic and institutional that influence norms, role expectations and social routines<sup>31</sup>. Categories that were identified under environment, include benefits of vocational rehabilitation in overcoming challenges in the environment, accessibility, employers' attitude, reasonable accommodation in the workplace and support.

### Category 2.1: Benefits of vocational rehabilitation in overcoming challenges in the environment

It is essential to design effective vocational rehabilitation programs for persons with SCI for improving return to work outcome following injury. Participants indicated that there are benefits that come with receiving vocational rehabilitation as an intervention to return to work, and these are either physical, emotional and/or social. The three subcategories that were identified were overcoming challenges in mobility, employer involvement and educating the family.

The majority of participants indicated the benefits of vocational rehabilitation in integrating them into the workforce, employer involvement, and including their family members into a programme. Through vocational rehabilitation the participants were able to address and deal with environmental problems that would hinder their participation.

#### (i) Overcoming challenges in mobility

The participants indicated how vocational rehabilitation assisted them into being able to mobilize within their environment.

*"Vocational rehabilitation is very beneficial. Not only at work you know, but day to day things [activities]. When you are around, you go to public places, you go to malls...once you get these things [vocational rehabilitation] then you find it [way] much easier [you know] to manoeuvre yourself around and to be able to work every day and to live your life you know, as compared to when you did not attend receive] it at all." (Jwaneng)*

#### (ii) Employer involvement

The employer is an essential stakeholder when returning to the work environment or gaining employment is concerned. The participants narrated the importance of the occupational therapist negotiating with and preparing the employer, during the vocational rehabilitation process.

*"Vocational rehabilitation also helped to negotiate with the employer and also.... informing or educating the employer about his or her [spinal cord as a] disability so that they could negotiate... hours of working, [and] the environment of working. And also assisted the employer, [in] knowing...[the] kind of assistance the person will require." (Folang)*

#### (iii) Educating the family

The participants affirmed that, as part of the vocational rehabilitation process the therapist should also educate and empower family members in terms of both physical and emotional changes required in their approach to the patient with a SCI.

*"It was not only me...[my] family was also involved onto how to go about...treating me and possible changes to be made at home. Yeah, and also that thing of [eliminating] feeling sorry for yourself*

*and also for them feeling sorry for me. That thing, [Education] ....shifted...the mindset of... myself and the family." (Calvin)*

### Category 2.2: Impact of accessibility on employment

In this category, the participants highlighted the negative and positive impact of accessibility on employment. The main challenges that were highlighted were public and private transport and accessibility into the workplace and buildings. The subcategories that were identified were transport and the workplace.

#### (i) Lack of adapted public transport

The participants shared their sentiments regarding transport as the biggest challenge in accessing the workplace due to lack of adapted public transportation, residing in rural areas where there is lack of public transport, not having their own vehicle and if they have a vehicle learning how to operate it, and companies being unable to organise transportation for patients with SCI to reach the workplace.

*"And the biggest thing [problem] is the transportation in this country. I learnt how to drive a hand-operated vehicle after the accident through vocational rehabilitation. If my car is giving me a problem, if you are using public transport, you find that you are challenged, you arrive late as a result of the poor public adaptability of transportation." (Habedi)*

#### (ii) Lack of accessibility in the workplace

Participants indicated that accessibility in the workplace was a challenge on their day-to-day functioning in terms of manoeuvring their wheelchairs and having to access restricted areas, for instance kitchens, other offices, parking area with their wheelchairs and accommodating adverse weather conditions.

*"I have to enter some of the offices maybe that are not wheelchair user friendly [accessible] or don't have space enough to accommodate a person who is in a wheelchair. Or maybe the doorways – the doors, the sizes of the doors were made in such a way that the only size that can pass through is of a person who is walking, not a person who is using some other objects [wheelchair] or some other device." (Folang)*

*"There's a ramp and then on the ramp there's no shelter in terms of when it's raining. There's a car port where I park, fine, but getting out to get to the office when it's raining then I must wait for the rain to cool off, that's when I can [enter the premises]." (Calvin)*

### Category 2.3: Employers' attitudes

The participants raised concerns that employers do not see them as individuals who are skilled and can perform their work, despite being disabled. Therefore, employers were deemed as barriers in employment of patients with SCI's. The subcategories that were identified were discrimination on the basis of disability and injustice

#### (i) Discrimination on basis of disability

Discrimination was deemed as unequal work opportunities by qualified patient with SCI, by an employer, owing to the fact that they are disabled.

*"They [Employers] believe we are less of people with ability and that on its own, if you compete against abled [body] people, you are already having a minus on your side [a disadvantage]. And I believe that is discrimination, because if you know there was this scientist who was on a wheelchair and that one was not from an accident [disabled] but he performed and became the best mathematician in the world." (Habedi)*

#### (ii) Legislation regarding employment of the disabled

Some participants were well versed in legislation and, are of the view that they face injustice as a result of their disability in terms of

private companies not adhering to legislation of including persons with disability.

*"Companies especially private companies, I don't think they do justice to people with disabilities.... there are policies in place that regulates that such a company must at least have 2% of people with disabilities but those things [policies] are not followed. You'll find that in companies, there will be not even one [disabled person]."*(Calvin)

#### Category 2.4: Reasonable accommodation

Reasonable accommodation refers to workplace modification and adaptations. The two subcategories that were identified were unjustifiable hardships and modifications and adaptations to job functions

##### (i) Unjustifiable hardship

The employer can be said to have an obligation to accommodate a disabled or ailing employee, or a feature of a particular culture, but not to the point of unjustifiable hardship. The participants indicated facing a challenge when returning to work, as the employer was not prepared to make alterations to the office environment, for easy movement and manoeuvring of wheelchair. The employer stated that they did not have financial resources.

*"But well, it was difficult because of work and they [employer] could not change the resources...to benefit me because with me being [I am] in a wheelchair... the structures were not really much friendly for me."*(Amogelang)

##### (ii) Modifications and adaptations in the workplace

Habedi had a positive opinion, and narrates how his environment was modified to suit his needs:

*"One [of the] toilet is being altered, it suit my needs. And the doors in some of the lecture rooms have been altered to suit my needs. I can say I'm very fortunate. My employ [er] has really accommodated my condition."*

Ernest indicated how his employers adapted his job functions:

*"There are no major challenges, but standing up for long hours, as I have to use crutches. So my superiors... have accommodated me. They actually allow me to teach while I'm seated."*

#### Category 2.5: Physical and emotional support for transition into workplace

Support from family members and friends after SCI, ensured easy transition back into the workforce, is as smooth as possible for patients with SCI's. The subcategories that were identified were family, friends and community.

##### (i) Family

*"My family was there for me through the trying times, I was so depressed. I didn't want to live anymore, but because of their support, I managed to accept my condition and learnt to live with it."*(Idah)

##### (ii) Friends

*"You see, after the injury, I was isolated and didn't want...to see anyone. Every time my friends would [come and visit]... I was so shy. But I was happy that my friends didn't judge me and always assured me."*(Jwaneng)

##### (iii) Community

*"And you know right now people in my community... are now used to me being in a wheelchair and give me support where necessary."*(Bontle)

The environment is where daily activities take place. Without appropriate structures put in place to ascertain access to transport and workplaces, involvement of the employer, modifications and adaptations to job functions, and education of family members and support from family, friends and community, the patients with SCI remains disadvantaged in seeking and gaining employment.

#### THEME 3: Occupation

Occupations can have an influence on work. Engagement in occupations, in the case of the current study, occupation being work, provides the sense of competence, autonomy, temporal organization, and meaning of existence to individuals<sup>30</sup>.The categories that were identified under occupation in this phase of the study include employment and professional growth.

##### Category 3.1: Employment

In this category the participants emphasized how employment has made a significant difference in their lives and barriers associated with employment of patients with SCI as well as the challenges of medical conditions that come with SCI, in the workplace. The three subcategories that were identified were gaining employment and return to work, financial independence and absenteeism due to medical conditions.

##### (i) Gaining employment and return to work

Vocational rehabilitation can help a client to identify their remaining skills and where necessary contribute to enhancing their abilities. Patients may even be guided into becoming self-employed, securing new employment or returning to their pre-SCI occupations.

*"The people [occupational therapists] who are talking to me in the vocational rehabilitation would ask me ....what kind of work I am doing and such things (so forth). And as part of the rehabilitation process they would teach me like [how] to write on the board, and being able to cope in the work environment...I found it very beneficial."*(Ernest)

##### (ii) Financial independence

The participants indicated that they value their financial independence and ability to contribute to not only their own livelihood but also to the country's economy.

*"Being employed has given me a sense of purpose and able to sustain myself financially."*(Idah)

##### (iii) Absenteeism due to medical conditions

The participants specify that due to the medical conditions related to SCI are often absent from work.

*"Yeah....like now since it's winter, eish, with my back pain and spasms as well you know that's when I suffer the most. Yeah because I cannot be in a wheelchair for a long period of time.... I have to like now and again lie back, rest my back but as it is, now at work, I was given problems in terms of sick leave... initially it was like four to five months then it changed, some new management came in."*(Calvin)

##### Category 3.2: Professional growth

In this category, the participants narrated how they would like to grow within their profession, promotion opportunities and be recognized as a team player. The subcategories that were identified were motivation, promotion and recognition.

##### (i) Motivation

Motivation is an experience of aspiration to academic and professional achievement, where employment is concerned.

*"I want before the age of 50 to be a doctor in my field of study."*  
(Habedi).

#### (ii) Scarce promotion opportunities

Promotions in the workplace are usually based on the employee excelling in their current position, exceeding expectations, on merit and work experience. However, participants indicated patients with SCI, being disabled has minimized their chances of being promoted.

*"At work now, the current challenge that I am facing is the issue of promotion. Yeah nothing was done I was just left there for now almost I can say 10 years of which I feel it's unfair on my side."*  
(Calvin)

#### (iii) Lack of recognition

Habedi narrates that since he sustained the SCI his co-workers do not recognize him:

*"I see that even if I give an opinion at work, some colleagues are just saying 'ah it's just his opinion'. In the past, before I got an accident, when I gave an opinion, they could [say] 'yeah this is lecturer so and so speaking' and they would think about it. So I'm battling to be recognized and I don't like it."*

Employment is of utmost importance to patients with SCI as it provided them with financial independence and being able to contribute to the country's economy. Motivation was noted to be key for professional growth. Barriers associated with being an employed patient with SCI such as absenteeism due to medical conditions, lack of recognition and promotions were emphasized by the participants.

## DISCUSSION

### Person

Participants expressed their concern about the high rate of unemployment of patients with SCI. The majority of participants indicated that in terms of person-factors the advantages of vocational rehabilitation assisted them to improve their capacity to cope with the disability and knowing their current physical capabilities and what job would suit these capabilities<sup>31</sup>. Social support has long been heralded as an important resource concerning individuals' well-being, and it has been cautioned that it may affect patients with SCI to a greater extent than it could be in the general population<sup>32</sup>. Participants affirm that, family members formed a component in the vocational rehabilitation process, by being knowledgeable about SCI and being able to take care of their family member. Heymann, Steyn and Moreno<sup>33</sup> further emphasize that successful reintegration into employment, may also require social support through workplace accessibility, employment incentives and political policies.

Participants reiterated that unemployment was as a result of lack of knowledge about job opportunities and, access to information regarding SCI. Patients with SCI experienced problems of vocational decision-making that included lack of information about employment opportunities, uncertainty about vocational and educational abilities and lack of knowledge of occupations<sup>33</sup>. Data from the current study indicate that many patients with SCI received little to no information during vocational rehabilitation about employment support and resources that are available to them, for instance places, contacts and resource centres that can assist patients with SCI with employment. This finding is corroborated by a study by Ottamanelli and Lind<sup>21</sup> who arrived at similar results. It should however be noted that, the other important factor, may be that in the current economic climate, even people with a qualification, and who are able bodied, have no employment<sup>34</sup>.

### Environment

Understanding the legal framework regarding environmental barriers in the workplace is helpful to guide the employer on return to work of disabled employees. The South African White Paper on the Rights of

People with Disabilities<sup>35</sup> highlights that the extremely high levels of unemployment amongst people with disabilities can be attributed to a number of environmental factors. The factors include discriminatory attitudes and practices by employers, past discriminatory and ineffective labour legislation, lack of enabling mechanisms to promote employment opportunities, inaccessible and unsupportive work environments, and inadequate access to information<sup>35</sup>.

One of the main challenges highlighted was accessibility into the workplace and buildings. Joseph et al.<sup>36</sup> share the same sentiment that inaccessibility of the environment had been identified as the chief barrier to social participation and integration of patients with SCI in South Africa. The inability to access workplaces due to inadequate parking facilities and inaccessible public transport are cited as concerns<sup>3</sup>. Inaccessibility of transport is internationally a major obstacle to participating in society<sup>37</sup>. In yet another study done by Joseph, et al<sup>36</sup>, patients with SCI indicated that public transport is also a major issue, since the lack of accessible transport resulted in inability to attend health and rehabilitation appointments and getting to their workplaces.

In South Africa, a legal framework exists that promotes the employment as well as assistance of people with disabilities in the workplace. It is captured in what is known as the Employment Equity Act (EEA) No.55 of 1998, which promotes employment equity<sup>17</sup>. South African government's EEA recommends that at least 2% of all employees in companies should be people with disability and explicitly states that if an employee is, or becomes a person with disability, the employer should keep in touch with the employee and where applicable, encourage early return to work<sup>17</sup>. This may require vocational rehabilitation and transitional work programmes. The EEA provides a guideline for employers and employees on promoting equal opportunities and fair treatment of patients with SCI.

Job modifications are often indispensable to reintegrate successfully in former and new job<sup>17</sup>. It is noted that patients with SCI are able to engage in competitive employment if appropriate accommodations that meet their needs, such as job adaptation and worksite modifications (reasonable accommodation) are provided by the employer. There was involvement of employers, however providing reasonable accommodation/ modification in the workplace environment, was stated as a challenge by the participants.

### Occupation

In terms of occupation-factors, to be re-integrated into the work force, vocational rehabilitation provided the necessary vocational and life skills for adapting to the work industry, and address factors that would hinder participation<sup>31</sup>. Therapeutic relationships between patients with SCI and occupational therapists, further assisted the participants' return to work, overcoming challenges in the workplace and educating their employers and families about their conditions.

In the South African context, no publications were found where the rate of employment post SCI, after receiving vocational rehabilitation as an intervention service, was explained. In the United States of America, Ottomanelli, Cotner, Swanson, Dirk, Arriola, Carlomagno and Toscano<sup>38</sup> expressed that patient with SCI who have registered in state vocational rehabilitation agencies and receiving job placement services, are likely to have a higher employment rate. In South Africa lack of vocational rehabilitation opportunities contributes to fewer patients returning to work<sup>39</sup>. In order to provide affordable and accessible services to the majority of the South African population and to meet the rights of citizens, integrated service delivery models should be considered<sup>39</sup>. However, only highly trained and specialised staff with access to equipment and resources and to support multiple site visits, could deliver relevant outcomes<sup>39</sup>.

The focus should however also be on the time spent receiving vocational rehabilitation, as some participants were dissatisfied. There was no follow up upon discharge and or after successful work placement, which is therefore indicative of the lack of comprehensive vocational rehabilitation services that are offered in Gauteng Province<sup>40</sup>. According to Coetzee, Goli, van der Westhuizen and van Niekerk<sup>40</sup>

comprehensive vocational rehabilitation is not always possible. This is due to large numbers of persons applying for disability grants (90% of patients) and thus a focus on assessment for disability grants instead<sup>39</sup>. This could also be attributed to the vocational programs being ineffective (for example vocational services not directed to obtaining specific skills for a prospective job), since there are no standards of which vocational rehabilitation programs should be included or which vocational services are effective for patients with SCI<sup>40</sup>.

Participants stated that upon discharge there was no follow up. Follow-up is highly recommended for all patients with SCI who used vocational rehabilitation services<sup>41</sup>. This could be with employers, referral sources, family members and the clients themselves, and could be done telephonically, electronically or during physical work visits. The follow-up of users of the vocational rehabilitation services demonstrates the occupational therapist's commitment to a case and serves to conclude a comprehensive service<sup>41</sup>.

When cognisance is taken of patients with SCI who received vocational rehabilitation as an intervention, it was evident that, for the employed participants, vocational rehabilitation played a significant role in terms of their return to employment. Access to these services equipped participants with information and skills in order to cope, as people, within their work environments and occupations.

### Limitations

The study focused only on the lived experiences of vocational rehabilitation on the employment of patients with SCI around Gauteng Province. The study could have focused more on those that were unemployed and had received intervention services, in order to determine the influence of vocational rehabilitation in securing employment. This was initially a two phased study, however only the qualitative phase was included in this article which means that any other evidence such as the quantitative phase that may have enhanced this article were excluded. The sample size was limited, with most participants being male and African.

### CONCLUSION

The most critical finding is that employed patients with SCI benefitted from vocational rehabilitation when return to work is concerned. However, the unemployment rate of patients with SCI remains a stumbling block, in leading a productive life. To address the challenges of receiving adequate vocational rehabilitation and returning to gainful employment, post SCI, recommendations can be made to ensure adequate vocational rehabilitation services are provided to patients with SCI. It is evident that the vocational rehabilitation process is not carried out fully. It is noted that majority of patients with SCI were not followed up, after placement. This phase is fundamental to a sustainable and successful outcome of return to work, and may bring about an increase in the low employment rate of this patients with SCI.

The study also identified that improved access to information and knowledge in the community regarding available resources, for return to work and SCI, could enhance level of participation of patients with SCI, thereby improving the patient's quality of life.

It is essential that occupational therapists should support patients with SCI in the transition from being out of work to establishing worker roles by thoroughly assessing an individual's physical abilities, cognitive skills, and work environment, a personalized plan can be developed. This plan would outline specific tasks, modifications, and assistive devices or technologies needed to support safe and efficient participation in their desired job role. Collaboration with employers and other healthcare professionals is often involved to ensure a smooth reintegration into the workplace. The environmental factors such as access to reliable transport, workplace, and public places for wheelchair users are important and there should be laws in place that could potentially support patients with SCI returning to work or securing employment.

There is also a need to encourage full participation by collaboration with policymakers, other health professionals, previous employer or

potential employer of the patient with SCI in the vocational rehabilitation process, for easy integration into the work force. Occupational Therapists could contribute through providing education on reasonable accommodation (job adaptations, accessibility and workplace modifications) to employers or potential employers, awareness about disability, skills development for patients with SCIs, development of barrier free structures and to get government departments involvement. Therefore, conducting further research to develop a comprehensive return-to-work program that improves employment opportunities for individuals living with spinal cord injuries is highly relevant.

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### Conflicts of interest

The authors have no conflicts of interests to declare.

### Author contributions

Boikhutso Molwana and Hanlie Pitout conceptualised the research project, collected and analysed the data. Both authors wrote and revised the journal article to completion and approved the final version.

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