Exploring positive adjustment in people with spinal cord injury

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Abstract

This study explored adjustment in people with spinal cord injury; data from four focus groups are presented. Thematic analysis revealed four themes, managing goals and expectations, comparison with others, feeling useful and acceptance, showing participants positively engaged in life, positively interpreted social comparison information and set realistic goals and expectations. These positive strategies show support for adjustment theories, such as the Cognitive Adaptation Theory, the Control Process Theory and Response Shift Theory. These results also provide insight into the adjustment process of a person with spinal cord injury and may be useful in tailoring support during rehabilitation.

Keywords

Introduction

The sudden and traumatic occurrence of spinal cord injury (SCI) means many people who experience SCI find the world as they know it shattered, and a process of adaptation and adjustment is necessary (Buunk et al., 2006b). Goals that were once important may become irrelevant or unimportant (Hammell, 2007), and adapting to the new situation requires ongoing psychological adjustment (Buunk et al., 2006a; Galvin and Godfrey, 2001). However, despite the negative impact, previous research has shown that positive adjustment usually takes place (Buckelew et al., 1990; Post and Van Leeuwen, 2012). This process of adjustment is little understood and may be influenced by many factors, such as type of illness or injury, age and gender. This means it can be difficult for those working with and caring for people with SCI to understand the process they are going through. This article presents qualitative data that show some aspects of the adjustment process for those with SCI.

Although little is understood about adjustment, theories have been applied to illness and injury in an attempt to explain the process. Some theories of adjustment, such as the Control Process Theory, provide a dynamic explanation, by means of feedback loops, by which cognitive adjustments to goals can be made, where the path to the goal has been disrupted (Carver and Scheier, 1990). Another theory, the Response Shift Theory (Sprangers and Schwartz, 1999), explains how our perceived quality of life may be changed by means of a catalyst or disruption (the injury) followed by 'mechanisms', such as coping strategies, resulting in a cognitive shift (or response shift), allowing a new perception of quality of life.

This shift may come about by changes in our internal standards of measurement (how we judge what is good or bad etc.), changes in our evaluation of our goals and changes in what we value. A third model of adjustment, the Cognitive Adaptation Theory (CAT) (Taylor, 1983), proposes that after a negative event, such as an SCI, a drop in self-esteem is experienced along with a loss of control. This brings about a need to regain control, self-enhance and to give meaning to the situation. While there is little evidence of the appropriate adjustment model for this group, the CAT has been applied to sexual adjustment in people with SCI, and sexual self-esteem was shown to predict sexual adjustment (Mona, 2012). The Response Shift Theory has also been proposed as an appropriate model for people with SCI (Barclay-Goddard et al., 2012). However, there is no clear understanding of adjustment to SCI.

All the above-mentioned theories suggest factors (or mechanisms) that facilitate adjustment, albeit in different ways, which can lead to confusion when trying to understand the adjustment process for this group. Some studies have found evidence for factors that promote adjustment, or in the words of the Response Shift Theory, factors which are mechanisms of adjustment. For example, better adaptation has been found in people with SCI, who engage in more problem-focused coping (Buunk et al., 2006a). In fact, in this study, more positive strategies than negative strategies were observed. A sense of coherence has also been found to be important for positive adjustment for people with SCI (Chevalier et al., 2009; Lustig, 2005), where those who felt the world was not a manageable place were more inclined to use non-adaptive coping strategies. Negative strategies, such as disengagement coping, have also been associated with negative adaptation in SCI (Martz et al., 2005). The use of social comparison, where people compare themselves against others in order to judge how they are faring on a dimension, such as coping with an illness or rehabilitation after an injury, also influences adjustment. Previous research has shown this relationship of social comparison to adjustment in SCI (Buunk et al., 2006a, 2006b; Kennedy et al., 2003) and in other illnesses, such as cancer (Taylor et al., 1984) and Ménière's disease (Dibb and Yardley, 2006).

While we know that positive coping strategies are more beneficial than negative ones and predictors, such as the sense of coherence and social comparison, may also be beneficial, this knowledge by no means accounts for the experience of the individual. This article does not aim to test a model of adjustment; rather, it aims to present the data where participants were allowed to talk freely about what they found and still find important in adjusting to living with their injury with the aim of gaining a clearer understanding of adjustment from the participants' perspective. The findings presented in this article were part of a larger study that sought to understand the users' and nonusers' perspectives of functional electrical stimulation (FES) in SCI (Blind Copy, 2011); with this focus, it was important to also understand the individual's perspective on living with SCI.

Methods

The findings presented here were collected as part of a larger study involving four spinal centres, with the aim of understanding users' and non-users' perspectives of FES in SCI (used to stimulate muscle movement). The schedule used to explore these perspectives also included questions that asked the participants to talk about their experiences of living with SCI, and what they found helpful and unhelpful; it is these findings that are reported here. We were also interested in social comparison, that is, whether observing others during the rehabilitation process was important or not; however, no direct questions were asked on this, this topic was only pursued once the participants had mentioned it. This article presents the themes that were categorized as relating to the adjustment process.

Participants

To achieve data saturation, a total of 21 people with SCI, recruited from four spinal centres in the United Kingdom, attended a focus group (four focus groups in total). In order to achieve a broad understanding of people with SCI, purposive sampling was used to ensure participants with different levels of injury, ages and time since injury were recruited. This meant that we required a varied 'time since injury'; included tetraplegia and paraplegia, both wheelchair-dependent and non-wheelchair-dependent participants; and participants of varying age. The majority of the participants were male (n = 19), with the injury being caused mainly by a trauma (n = 20). The age range was 31–67 years (mean = 49 years) and the time since injury ranged from 1 to 37 years (mean: 14 years). With regard to the level of injury, both paraplegia (injuries below the first thoracic vertebrae (T1)) and tetraplegia (injuries above the seventh cervical vertebrae (C7)) were recruited. An SCI can also be complete or incomplete: a complete injury means that there is no function below the level of the injury, while an incomplete injury means there is some function below the level of the injury. Five participants in this study were incomplete tetraplegia, five participants were complete tetraplegia, six participants were incomplete paraplegia and five participants were complete paraplegia.

Design and methodological assumptions

Using a qualitative design, factors relating to living with and adjustment to SCI were explored. The researchers, while having familiarized themselves with the literature and aware of the possible theoretical application, approached the data collection and analysis with an open mind, and the interview schedule was not directed by previous literature or theory. The results show responses from the participants, which were patient driven and only explored by further questioning from the researchers. This approach assumes that the participants' experiences are an accurate and real account of what the participants actually experienced (Braun and Clarke, 2006).

Procedure

After ethical permission was received (National Health Service (NHS) Research Ethics), the spinal centres identified potential participants, and invitations to participate were issued by the spinal centres on behalf of the researchers. Those interested in participating were then invited to a focus group. The groups took place at or near the spinal centres. Consent was gained at the time of the group.

Data collection

Focus groups were used to explore the wide range of perceptions of the participants, as they allow a safe context in which to discuss feelings and opinions (Krueger and Casey, 2009). The group effect ensures the individual does not feel isolated or singled out (Krueger and Casey, 2009) and has the advantage of encouraging people, who would normally remain quiet, to participate. Focus groups create a situation where thoughts and beliefs can be shared among the participants and similar and different experiences discussed at length, and in this way, a variety of opinions can emerge from one discussion (Krueger and Casey, 2009). The focus group schedule followed a path that allowed us to explore factors associated with living with SCI. Areas covered included the experience of living with a SCI and the factors they found helpful and unhelpful in the rehabilitation and adjustment process. The schedule used for the groups was non-directive, allowing participants to express what they perceived as important to them. The approach taken in this study was to explore the experience of living with SCI, allowing the participant to respond freely while following up responses with probes and further questions. The questions were intentionally broad and open, allowing the participants to give their views and opinions. No direct questions on social comparison and adjustment were asked until the participants voluntarily raised the issues themselves. The focus groups were facilitated by BD and observed by MDH and they lasted no longer than 2 hours. Both the facilitator and observer were able-bodied females and in their 30s at the time of the focus groups. In order to reduce any perceived differences between the facilitator and the participants, the focus groups were all conducted seated around a table, thus reducing any visible differences. In order to encourage honest and spontaneous comments from the participants, the facilitator was always careful to develop a good rapport with the participants.

Analysis

The groups were audio-recorded and transcribed verbatim including facilitator contributions. Thematic analysis (Braun and Clarke, 2006; Joffe and Yardley, 2004) was carried out by BD to identify inductive themes from the transcripts, which gave understanding to the participants' experiences of living with SCI. Regular discussions took

place between BD and MDH to discuss the theme development. Thematic analysis is a method that allows the researcher to identify meaning within individual accounts of experience (Braun and Clarke, 2006). After reading and rereading the transcripts, initial coding took place by identifying meaning in the text. Further analysis took place by grouping the initial codes into categories that were then organized into themes (Braun and Clarke, 2006; Murray and Chamberlain, 1999). The themes can be described as semantic or manifest (Braun and Clarke, 2006), where comments are taken at face value, and all quotes were exclusive to one theme. Rigour was enhanced as transcripts and themes were discussed within the multidisciplinary research team (team members were from the following disciplines: health psychology, physiotherapy and occupational therapy) to highlight any alternative interpretations of the data and to avoid the influence of biases and preconceived ideas.

Results

Pseudonyms have been used in the write-up for the purposes of anonymity, and all identifying descriptions have been changed. The following four main themes relating to adjustment to and coping with SCI were identified from the data: *managing goals and expectations (Theme 1), comparison with others (Theme 2), feeling useful (Theme 3) and acceptance (Theme 4)*.

Theme 1: Managing goals and expectations

Many participants commented on the importance of managing their expectations by being realistic and setting achievable goals during their rehabilitation:

Carl:
I am here now and I'm going to
make the most of what I've got and
if I walk, I walk, if I don't I don't. I
will try things but you know my
expectations will be, well this may
work, as I say, the small things are
most important, getting the little
things into place are more important
than trying to run before you can
walk.

And later,

Carl:

The thing is that when you're at the
top you can only go down, so don't
build your hopes too high.

Carl showed he was setting realistic goals but not hoping for too much, a coping strategy
protecting him from future failure and disappointment.

Other participants also felt it was important not to set goals too high. Jonathan told a story
of a person he felt set goals that were too high and how these unrealistic goals led to
suicide. Stories like this had an impact on Jonathan leading him to be cautious with his goal
setting:

Jonathan:
I think back to PC Old, [...] was
shot in the spine. [...] they all
said 'We're going to get you to
walk again' and 'We're going
to do everything. We've got the
latest research. You're high
profile' and the poor guy
believed that he was going to
walk again and he committed
suicide in the end because it
was never going to happen and
he killed himself.

On a similar note, participants felt it was important that the staff be realistic and not set
high goals:

Jonathan:
I think it's very important for
the doctors and nurses to let
you know, first of all, that
you're not going to walk again
and, secondly, that your rate of
progress will be different to
everybody else.

There was also an awareness of the need for others not to be kind or polite; they wanted to
hear the truth:

Ian:
I remember the nurse saying to me
'You'll never walk again. Don't try
to move your legs. You're wasting
your time'. She was right because I
never moved them then and haven't
moved them since. That brought it
home to me. You've got to get on
with your life as it is and from then
on I did. I know your relatives say
'You'll be all right. We'll sort it out',
but it doesn't happen, but that is bad
for the patient.

Theme 2: Comparison with others

This theme highlighted how the participants felt that the presence of others had an effect on how they viewed themselves. These feelings were sometimes positive and sometimes negative and occurred between both those with SCI and those without. The dimension on which these comparisons occurred tended to be on the physical functioning domain, that is, on actions that could be performed. Below are examples of how comparing with others led to positive, hopeful feelings. The individual felt that they, too, could do or try what they observed others doing.

Tom shows how he observed or listened and interpreted what he saw and heard in a positive way. These observations allowed him and perhaps encouraged him to feel that he could also do that or be like that:

Tom:
... it was only when I was watching
people and listening and talking to
people about their experiences ...
you think 'I can be that, I can do
that'.

Ryan's quote that follows goes a step further and shows, again on the dimension of physical functioning, an element of hope ('if only I could ...'), of how he wanted to also do that which he was observing and interpreting this in a positive manner. This participant had been injured at the fifth cervical vertebrae (C5). He shows how he is particularly aware of other people with injuries at the same and different levels, who were also engaging in this type of comparison, when he comments on the different physical activities

that could be achieved by the patients he was observing on the ward:

Ryan:
... and JT, who was a C5 as well,
looked at me, he was still in a chair,
thinking, 'my God, if only I could
stand up and I was looking at JT
thinking 'my god, if only I could
breathe without this ventilator', so
there's all these levels.

These quotes also show how different dimensions are used by different people, each comparing on a dimension in which they are worse-off, but it is a positive upward comparison they are engaging in (feeling positive after comparing with someone who is better-off). In Tom's quote that follows, he identified a dimension in which he felt inspired, that is, the strong legs:

Tom:
... his legs were a lot stronger than
mine but his neck was broken ... I was
watching him thinking 'right, I want
my legs to be as strong as that' and
comparing myself to him. Whereas
he was doing the same with me ...

Ryan and Tom, above, show an awareness of comparing themselves but also being the target of comparison by others. Carl also demonstrated inspiration and hope at what he observed; he saw the target as better-off but felt that this was a goal he could achieve, and the motivation in his words 'let me do it' is very clear:

Carl:
When I saw somebody transferring
I was like 'How will I do that. Let
me do it'. The way they move
around in the wards [...] are a little
more advanced than what you are, I
used to watch them all the time and
say 'when can I go for a shower', 'I
wanna go and do it', so it does sort
of spur you on a little bit more.

In the next extract, Tom showed how he compared himself with a person who does not have a SCI, but for him, this person was still a downward (worse-off) target as the person was more overweight than Tom. Not only is this a positive interpretation of a downward target but, in addition, this extract brings in an element of control to managing life. Tom reported feeling pleased that it is on the dimension of self-control that he was superior. In this comparison he was the upward target:

Tom:
but then you walk down the street and
you see somebody who is massively
obese and you think, 'well, they can't
run, I can't run, but I had to have a car
hit me and the only reason is that you
can't stop putting your hand to your
mouth' so that's one thing.

In the following, Luke imagined a worse situation to his own, and this had a positive effect as he felt lucky about his situation:

Luke:
Yes. I'm lucky because I know
when I need to go to the toilet so I
don't have to wear a bag or anything
like. It's worse than being in a
wheelchair, not having control of
your functions. I would quite happily
be in a wheelchair because I
can still do what I want to do, drive
the car and everything, but not have
control of your bodily functions is
the worst part of the whole thing.

However, although most of the comments were positive, observing others did not always result in positive affect. Carl observed that social comparison can result in a negative affect in situations where FES Functional Electrical Stimulation does not work in an environment where it has been a success for everyone else:

Carl:
[...] I think you got to be very careful
who it [Functional Electrical

Stimulation] gets done on, [...], as it works for one and not another, as you said if you get four lads in one room, or four girls, [...], you know if one person out of the four it is working well, the other's are going to be getting a bit depressed, a bit angry and maybe even put them back a couple of weeks or months, the best environment would be in the out-patients where they can monitor each person individually.

Eddie engaged in some avoidance coping to avoid comparing with a target that was too similar to himself and served as a reminder to his situation:

Eddie:
it [a self-help group] could be very addictive and all. You could spend hours and hours and it just makes you feel sad. I once had contact with a guy who had the same accident as me. He only lives 12 miles away and I hate his company; just the fact that I look at him and I see myself, I think, bloody hell, so if I can, I avoid it ...

Theme 3: Feeling useful

Luke reported that an important part of the adaptive process is to still feel useful. As many activities were no longer possible due to his injury, it was important to find something where he could maintain a feeling of importance. He linked the loss of this feeling to depression:

Luke:
I think mentally if you are comfortable with your job [...], if you are happy, then life isn't too bad, you know, if you're in a wheelchair. It's the little things that can make your life easier that this kind of things

[Functional Electrical Stimulation] can help with, but mentally it's more important to feel useful, to feel happy with the surroundings and so on. Mentally it's feeling useless is what gets you depressed. If you feel like you're not of any use, if you're doing a job or if you're in a situation where you feel like you are contributing and that it's not the end of the world then, you know, that's it, it's cool.

Giving back to others also formed part of this theme:

Patrick:
Before we came into this meeting I think one of the people in here went past us and said 'Ah nice wheels' so I had a quick chat with him and I'm going down to have a quick chat with him when we are finished here ...

These participants described helping others in a positive way. This is an area in which the participants feel they can contribute due to their personal experience.

Theme 4: Accceptance

Comments coded in this theme show that the participants had an insight into their situation. Participants were aware of coping with 'things', while still very aware that there were bigger 'things' to think about. Carl indicated he was grateful that he was 'still alive', his acceptance of his situation was clear by the way he said he was 'resigned to the fact that [he] is still here'; he focused on the positive aspects of his life, which were important to him (wife, kids and family around me), and he concluded he had a good quality of life. He also did not feel anything was missing (I have everything I need):

Carl:
Am I more resigned to the fact that I'm still here and I don't care. You know, I am in a wheelchair and that

is it. That's the most important thing
to me is that I'm alive, and to walk
again does not bother me. I've got
my wife, I've got my kids, I've got
my family around me, I've got everything
that I need. I've got a good
life, quality of life. It's changed in
12 months, don't get me wrong, it
has, a lot, and I'm still learning, I'm
still coming to terms with it. Still
coping with things and new things
[…] but […] I am quite happy the
way my life is, because my life's
more important.

Carl's attitude of acceptance and feeling 'happy the way my life is' may be due to how he
came to be injured in the first place. Carl's experience was unusual as he had experienced
an assault in which he was left for dead. This knowledge may have assisted in his acceptance
of his situation, and he felt lucky to be alive. The last line 'because my life is more
important', indicates an awareness of how lucky he is to be alive. Other participants took
longer to adjust to their situation. Jonathan, below, shows how it took him 5 years to adjust
to being in a wheelchair:

Jonathan:
It took me about 5 years to get
used to being in a wheelchair.
After a year [...] it can take a
long, long time because handling
it is such a difficult thing,
you know what I mean?
Anything that can make it a little
bit easier, you're going to
take it, aren't you?

In the last line the 'anything' Jonathan is referring to is FES Functional Electrical stimulation,
which some people with SCI are able to use to achieve some muscle movement; these
comments were made often among participants showing a desperate need to regain some
of the function they had lost.

Also included in this theme were comments which referred to how important it was not to blame anyone for their injury. They were aware of the negative impact this could have on learning to accept their situation:

Jonathan:
It was my ... it was just an accident
... no one to blame. If
you've got someone to blame
then obviously I would think
you could get quite bitter about
it. That [...] could be very
destructive I would think. If you
live your whole life blaming
somebody for something, that
probably could destroy me. If
someone had caused my accident,
I don't know ... mentally
there's no one to blame. You just
have to get on with it, don't you?

The comments presented under this theme were made by participants with a varied 'time since injury'. For example, Carl had only been injured 1 year at the time of the focus group, while Jonathan had experienced his injury over 20 years ago. This shows that 'acceptance' is not always dependent on the length of time since the injury.

Discussion

This study sought to understand the participants' perspective of living with and adjusting to SCI. While the study was not theoretically driven, the results can be viewed from the perspective of models of adjustment to chronic illness in an attempt to better understand the adjustment process for people with SCI. This knowledge may assist health professionals understand the decisions people with SCI make when managing their situation.

The results show a range of processes the participants engaged in during the process of adjusting to SCI. Setting realistic goals and managing expectations emerged as an important strategy to avoid disappointment. This was the case not only for the people with SCI with setting their own goals but also for the staff who assist in setting goals during the rehabilitation process. Participants felt that they would rather aim low and not be faced with failure. This may be a way of protecting self-esteem by focusing on small achievable gains. Goal planning was also found to be important for people with SCI in another study, especially when goals were set by the patients themselves rather than by staff members

(Byrnes et al., 2012), emphasizing the importance of patient-centred care. Taylor's CAT (1983) proposes self-enhancement as one process we engage in during the adjustment process; however, she proposed that this is achieved through downward social comparison (comparing with others who are worse-off). Participants of this group were protective of their goals and managed their expectations, and this may be another method of self-enhancing. The Control Process Theory may well be a better model to apply to this theme, where participants were avoiding setting goals that were unachievable and more accessible goals were aimed for. In this way, movement towards goals would be more likely to maintain an acceptable pace, and therefore, more likely to result in positive affect (Carver and Scheier, 1990).

Participants were engaging in social comparison with regard to the level of injury, level of physical function, and their success/failure at rehabilitation. Participants made positive upward and downward comments showing an awareness of their own comparisons and also an awareness of others' comparison with them, and as these comments were positive, the effects of comparison appeared to have a positive effect on their outlook. It appeared that participants compared aspects where they felt they were better-off as a means of coping with their situation. This may have had the effect of self-enhancing, proposed by Taylor's (1983) CAT and subsequently by Bogart and Helgeson (2000), Tennen et al. (2000) and Wills (1997). The participants with SCI in study 2 by Buunk et al. (2006b) engaged in positive comparison on many dimensions, and they did so more on the physical dimension as this was the dimension that was related to more stress. This method of coping may have acted as a mechanism in the adjustment process (Sprangers and Schwartz, 1999). The comparison may also be relevant to the Control Process Theory (Carver and Scheier, 1990) as they propose that a comparison is made between actual behaviour and a 'reference value', in this case, other people with SCI, as in this way, a judgement can be made as to what progress the individuals are making with regard to their own goals.

Participants also showed an awareness of negative comparison and saw the best solution was to avoid situations that brought about negative comparison. Avoidance was only observed in the current study where participants said they avoided meeting people who reminded them of themselves. This supports Brickman and Bulman's (1977) early study, which also found that people avoid social comparisons which make them look worse, and Buunk et al.'s (2006a) study with people with SCI, where negative interpretation was also related to avoidance coping strategies, which were associated with worse outcomes.

Participants in this study also sought out positive comparisons with people without SCI, which is a potentially threatening comparison; however, these comparisons were positive, where the dimension of the comparison was one in which the target was worse-off than the participant with SCI. This supports findings of Schulz and Decker (1985) and Buunk et al.

(2006a, 2006b), who also found ill and disabled participants to view themselves as better-off than those without disability.

It was interesting to find that control emerged as another element of social comparison. Control has been found to mediate social comparison in studies with people with cancer (Bogart and Helgeson, 2000) and Ménière's disease (Dibb and Yardley, 2006). In this study, positive comparison was occurring on dimensions over which the participant had control, more so than the person with whom they were comparing, and this was having a positive effect. This control may have helped to give the impression that movement towards goals was possible/achievable, which may have been linked to the positive effect (Carver and Scheier, 1990).

Feeling useful was also important with comments made with respect to occupation and helping others. This may be likened to 'purpose in life' investigated by Thompson et al. (2003), who found it to be significantly related to adjustment, and supported by Van Leeuwen et al. (2012) who showed the importance of 'purpose in life' to quality of life in their systematic review of psychological factors in people with SCI. Additional research has also shown the importance of being involved with meaningful activities (Hammell, 2007), highlighting the role of feeling needed and valued, which is likely to also have an influence on self-esteem (Taylor, 1983). Acceptance of their situation appeared to be important in order for the individuals to adjust. This supports other research into people with SCI (Byrnes et al., 2012; Weitzner et al., 2011) and multiple sclerosis, where acceptance was positively correlated with life satisfaction (Pakenham, 2007), and with carers of people with SCI (Dickson et al., 2012). The results showed that acceptance of their situation also included references to the importance of not blaming others for their situation, supporting Schulz and Decker's (1985) earlier finding and Buunk et al.'s (2006a) study with people with SCI, where positive comparison (both upward and downward) was associated with constructive coping and less blaming of others. This aspect may be a mechanism as proposed by the Response Shift Theory, a mechanism by which adjustment may occur (Sprangers and Schwartz, 1999). Participants felt it was important that individuals accept their situation in order to move on and articulated that they also felt that this was important for their family members. The Control Process Theory is also relevant here where acceptance that a given route to a goal or that a given goal is unachievable may allow for new goals or new pathways to the goal to occur (Carver and Scheier, 1990). A possible support mechanism may be the use of cognitive behavioural therapy (CBT) to achieve acceptance, as CBT has been found to have short-term benefits for people with SCI (Dorstyn et al., 2011).

The results of this study allow us an insight into the adjustment process of a person with SCI. While there is evidence of the application of all three of the adjustment models discussed in this article to other illnesses, these results show evidence for the application of these models to people with SCI. This knowledge is beneficial for those working with and caring

for people with SCI. In particular, this knowledge can be applied to self-management and the rehabilitation stage, where models of adjustment can be used as a guide; realistic, achievable goals can be aimed for and positive interpretations can be encouraged (and negative interpretations can be countered), while educating the individual as to potential opportunities available to them.

This study is not without its limitations; the conclusions are based on a self-selected sample, which means that the results cannot be said to be representative of all people with SCI. However, readers may consider applying the findings to the situations of people who are similar to those in the focus groups. While focus groups are a valid method of collecting data, there are drawbacks in that some participants may be more eloquent in communicating their thoughts than others. In addition, participants may have been presenting a 'positive front' for their fellow participants and researchers. However, in the study, they felt able to talk about negative as well as positive aspects of their lives.

Another limitation is the qualitative nature of the study, which relies on the involvement and interpretation of the researchers, who may have had biased views and whose own personal characteristics may have impacted the data collection. This awareness allowed the researchers to ensure that a good rapport was achieved with the participants during data collection and frequent discussions about the coding and theme development took place to avoid the influence of preconceived ideas.

To conclude, the results of this study show people with SCI positively engaged with their adjustment and used mechanisms such as positive interpretation of social comparison, making efforts to engage and interact in society and so feel useful, and setting realistic goals and expectations to avoid disappointment. These positive coping strategies show support for adjustment theorists such as Taylor's (1983) CAT, the Control Process Theory (Carver and Scheier, 1990) and the Response Shift Theory (Sprangers and Schwartz, 1999). Rehabilitation strategies may benefit from this knowledge and include tailored goal setting and encourage positive interpretation of comparison information in their approach. Future research may focus in more depth on the importance of expectations and the role of comparing with others.

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