PATIENT PERSPECTIVES OF INTERNET-DELIVERED COGNITIVE BEHAVIOURAL THERAPY FOR PSYCHSOCIAL ISSUES POST-SPINAL CORD INJURY

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Abstract

**Background:** Individuals with a spinal cord injury (SCI) confront numerous physical and psychological adjustments. Many report clinically significant depression and anxiety disorders post-SCI; thus, attention to psychological distress is crucial. Cognitive behaviour therapy (CBT) has been shown to be effective in reducing anxiety and depression. Despite the availability of treatment, there are barriers such as accessibility, cost, and transport to appointments. Internet-delivered CBT (ICBT) can increase access to psychological services. **Purpose:** The purpose of this study is (a) to evaluate patient perspectives on the acceptability of an eight-week guided ICBT course (the *Chronic Conditions Course for Persons with SCI*) and (b) to gain understanding of SCI experiences that may impact ICBT. **Method:** Semi-structured interviews were conducted with patients (*n* = 8). The interviews were audio-recorded, transcribed verbatim, and examined by means of thematic analysis. Emerging themes were summarised and explored. **Results:** Patient comments were organized into three broad categories: SCI experience, ICBT experience, and ICBT outcomes. Interviews provided insight into SCI outcomes and support ICBT acceptability with identified strengths (e.g., accessibility, flexibility, guided support). Suggested changes included improved breadth of case stories, course timeframe, and more support from the guide. **Limitations:** The small sample size limits insight into diverse SCI experiences that are expected due to the unique nature of each injury. **Implications:** This research provides a better understanding of ICBT as an acceptable treatment for psychosocial issues post-SCI. Patient feedback provided valuable information for improving and tailoring the ICBT course to the SCI population and in understanding SCI experiences.

**Keywords:** spinal cord injury, cognitive behaviour therapy, depression, anxiety, online
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Patient Perspectives of Internet-Delivered Cognitive Behavioural Therapy for Psychosocial Issues Post-Spinal Cord Injury

Following traumatic injury, persons with spinal cord injury (SCI) confront numerous physical and psychological adjustments. Individuals who were once completely independent must rely on others for their basic necessities and rehabilitation. This transition and altering of identity often effects the psychological functioning of individuals who have an SCI (McCoy, 2016). A recent national SCI community survey in Canada has revealed that only 43% consider their emotional counselling needs are being met (Noreau, Noonan, Cobb, Leblond, & Dumont, 2014). This concerning high number indicates that there is a gap in the rehabilitation process of this population. Along with physical rehabilitation, attention to psychological distress is crucial for complete individual recuperation post-SCI. There is evidence that SCI-related psychosocial issues, such as depression, anxiety, coping, and self-efficacy, can be improved with psychological interventions, mainly cognitive behaviour therapy (CBT) (Dorstyn, Mathias, & Denson, 2010; Mehta et al., 2011).

**Psychosocial Issues Among Persons with an SCI**

Commonly understood outcomes of an SCI include severe and disabling consequences to motor and sensory functioning below the site of lesion (Maynard et al., 1997). However, SCI patients not only suffer from varying degrees of mobility loss, they often develop psychological issues (Post & van Leeuwen, 2012). In a review of current literature, Craig, Tran, and Middleton (2008) found that following SCI, many patients report clinically significant depression and anxiety disorders. Among included samples, major depression disorder ranged from 17 to 24%, depressive symptoms ranged between 10 to 60%, and anxiety disorders ranged from 13 to 40%.
(Craig et al., 2008). Distressing psychological symptoms have also shown to persist 10 years after an injury (Pollard & Kennedy, 2007).

The most common cases of the neurological disorder involve major trauma in a population younger than 40 years old. Thus, immense physical, social, and economic repercussions are observed because of SCI in generally active, healthy age populations (Nogueira, Rabeh, Caliri, & Dantas, 2016). Mental suffering can severely affect health outcomes such as socialization, functional independence, perceived quality of life (QOL), and healthcare costs (Dorstyn et al., 2010). Loss of personal independence and uncertainty about the future also presents challenges to the adaptation process of persons with these injuries (Castellano-Tejedor & Lusilla-Palacios, 2017), affecting self-worth and feelings of competence (Hammell, 2007). As a consequence of the elevated prevalence of reported pain, infections, depressive mood, and anxiety following SCI, QOL is substantially lower in persons with SCI compared to the general population (Post & van Leeuwen, 2012).

Recent qualitative research has shown that negative mood presents as a barrier to self-management (Munce et al., 2014). Unfortunately, persons with SCI frequently report low mood and an inability to self-manage early in their recovery, which is associated with higher levels of depression and anxiety (Munce et al., 2015). Additionally, individuals with comorbid depression are likely to experience increased hospital stays, fewer functional improvements and less functional independence, increased pain and mortality levels, poorer self-appraised health, additional need of paid care, decreased self-efficacy, and poor QOL (Fann et al., 2011; Perkes, Bowman, & Penkala, 2014). Psychological difficulties in the acute phase of an SCI can become chronic without appropriate treatment (Tran, Dorstyn, & Burke, 2016). Therefore, increasing positive mood is important to facilitate self-management (Munce et al., 2015). To help
individuals cope and manage effectively, attention to psychological distress is crucial for complete individual rehabilitation post-SCI.

**Therapy for Psychosocial Issues**

**CBT.** CBT focuses on identifying and managing unhelpful thoughts and behaviours that result in feelings of anxiety and depression. Several focuses of CBT include problem-solving, cognitive restructuring, increasing willingness to engage in rewarding activities, relaxation training, as well as self-efficacy and coping (Swett & Richardson, 2004). This approach is one of the most extensively researched forms of psychological treatment for various disorders and chronic health conditions (Cuijpers, van Straten, & Andersson, 2008). Studies have shown positive effects on several mental health conditions (e.g., depression, anxiety disorders, schizophrenia) and physical conditions (e.g., sleep issues, pain, headaches, cancer, multiple sclerosis) (Cuijpers et al., 2008). CBT has also been found to effectively improve SCI-related psychological outcomes such as depression, anxiety, coping, and self-efficacy (Dorstyn et al., 2010; Mehta et al., 2011). In a review examining different psychological therapies for the management of depression following an SCI, Perkes et al. (2014) found that CBT was the most effective psychological treatment. As depression and anxiety disorders are prevalent within this population, access to psychological treatments is vital for rehabilitation efforts and for improving emotional wellbeing.

**Barriers to Psychological Services.** Despite the prevalence of psychosocial issues among SCI patients and the presence of effective treatments such as CBT, Noreau et al. (2014) found that less than half of individuals with SCI have their emotional counselling needs met. Service barriers, such as the process of receiving therapy and associated costs of doing so, are substantial in this specific population due to physical limitations. For instance, factors that
contribute to lower rates of mental health care utilization for persons with SCI include stigma related to having a mental disorder, insufficient transportation, inadequate financial resources or insurance coverage, and less access to services with expertise in rehabilitation populations (Fann et al., 2011).

**Internet-delivered CBT (ICBT).** CBT is increasingly delivered via the internet and may have several advantages over traditional forms of delivery. Online therapy has shown potential for overcoming common treatment barriers (Andersson, Cuijpers, Carlbring, Riper, & Hedman, 2014). Online deliverance of CBT lessons allows for immediate reports of patient progress and self-ratings (Cuijpers et al., 2008). Other important benefits include saving therapist time, reducing wait-lists, flexible admission of treatment, eliminating travel to in-person appointments, and reducing stigma. These factors make ICBT accessible to individuals who live far from treatment centers and to populations with health issues, such as an SCI, who commonly have difficulty with transport to scheduled appointments (Cuijpers et al., 2008).

A meta-analysis has indicated that guided self-help treatments are as effective as traditional face-to-face treatments (Cuijpers, Donker, van Straten, Li, & Andersson, 2010). Research has demonstrated the efficacy of ICBT in reducing symptoms of depression, anxiety, and stress (Hadjistavropoulos et al., 2014), and these improvements are maintained months after receiving treatment (Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010). Online clinician and non-clinician guided treatments are also comparable with traditional in-person therapies, resulting in significant improvements for both depression (Titov et al., 2010) and anxiety (Robinson et al., 2010).

The typical approach of ICBT involves several online lessons and weekly communication with the provider via email or telephone (Hadjistavropoulos, Alberts, Nugent, & Marchildon,
Advantages of ICBT include the convenience, acceptability, anonymity (Soucy & Hadjistavropoulos, 2017), accessibility, and flexibility of programs (Richards et al., 2016). Effective ICBT treatments have been reported for treating psychosocial issues for several other health conditions, such as chronic pain (Hadjistavropoulos, Schneider, Hadjistavropoulos, Titov, & Dear, 2018), fibromyalgia (Friesen et al., 2017), and cancer survivors (Alberts, Hadjistavropoulos, Dear, & Titov, 2017).

One study has examined ICBT for mood disorders in adults with an SCI (Migliorini, Sinclair, Brown, Tonge, & New, 2016). Migliorini et al. (2016) found that symptoms of anxiety were further reduced in the intervention group (n = 23) compared to the waitlist group (n = 25); however, the reduction only approached statistical significance. Depression was reduced significantly in both groups with the passage of time, but the size of the reduction was not significant when comparing the two groups. Overall satisfaction with life concurrently improved in the intervention group only. Migliorini et al. (2016) discussed frequent and repetitive difficulties that affected recruitment and adherence. Barriers included lack of computer skills, older technology, and personal schedules. The intervention was self-directed and may have contributed to the lack of group effects and attrition. The authors indicted that, in keeping with previous research. Additional clinical support may facilitate better outcomes. Aside from this singular study, very little is known about the feasibility of ICBT in SCI populations; therefore, research examining SCI experiences with ICBT is needed.

**Purpose**

Since ICBT is still a novel approach among those with SCI, qualitative assessment of patient experiences will allow researchers to examine outcomes and perspectives in an exploratory manner. From this, information surrounding SCI experiences can be obtained by
those interested in tailoring treatment to this unique population by hearing from the community themselves. Qualitative approaches permit a broader understanding of the reality of enduring an SCI. It cannot be assumed that past qualitative research on other conditions can apply to SCI as it is unique in many ways. This injury results in limitations that necessitate intensive, long-term assistance from others, sometimes involving basic activities such as bowel and bladder management, dressing, and transportation (Charlifue, Botticello, Kolakowsky-Hayner, Richards, & Tulsky, 2016). Additionally, the rehabilitative process is long, difficult, and often slow. Individuals with SCI need extensive time to adjust to physical changes, such as wheelchair use, and may have concerns regarding their body image if they feel different or stigmatized (Charlifue et al., 2016). Consequently, qualitative research on SCI experiences is necessary.

Interviewing persons with SCI expands the knowledge on the feasibility of this newly implemented treatment method, so it can be fine-tuned to this population. This study supports the evaluation of the first ICBT course for persons with SCI in Canada. The purpose of the current study is to (a) evaluate patient perspectives on the feasibility and acceptability of an ICBT Chronic Conditions Course for Persons with SCI in improving participant emotional wellbeing and (b) to gain understanding of SCI experiences related to delivering ICBT. As individuals with SCI are at an increased risk of experiencing decreased QOL due to negative psychological outcomes, gathering information on perceptions of accessible interventions will help in understanding how ICBT can be further improved for this specific population.

Method

Participants

The current study is a subset of an ongoing feasibility study examining the effectiveness of an ICBT Chronic Conditions Course for Persons with SCI. This study received institutional
research ethics approval and was registered with ClinicalTrials.gov (NCT03457714) prior to commencement. The guided course is delivered over eight weeks and includes five modules that intend to improve the emotional wellbeing of persons with SCI by developing self-efficacy, behavioural activation, and management of their psychological distress. The course is offered on the University of Regina’s Online Therapy Unit website. The feasibility study is recruiting persons with SCI through primary care facilities, rehabilitation hospitals, and community support groups across Canada. Inclusion criteria for persons with SCI include: (a) diagnosis of SCI by a physician; (b) ages 18 years or older; (c) residing in Canada for the next eight weeks; (d) access to a computer and internet services; and (e) is willing to provide a physician as an emergency contact. Exclusion criteria for persons with SCI are as follows: (a) high risk of suicide; (b) suicide attempt or hospitalization in last year; (c) primary problems with psychosis, alcohol or drug problems, mania; (d) currently receiving active psychological treatment for anxiety or depression; (e) is not present in Canada during treatment; and (f) have concerns about online therapy. Eight patients who completed the ICBT course were interviewed for this study until data saturation, the point at which additional information produces little to the development properties of a category, was reached (Guest, Bunce, & Johnson, 2006).

The ICBT Treatment

The online intervention is based on CBT and consists of five lessons that are delivered over an eight-week period. The program includes case stories based on real people with SCI and each lesson is followed by recommended homework assignments. Participants receive weekly automated messages letting them know about the next lesson. A guide contacts them through email or telephone based on their preference to answer any questions regarding the material and to review homework assignments. There are also additional resources that cover topics such as
sleep, communication, and problem solving that can be reviewed and discussed with the guide as needed.

**Procedure**

Participants completed an online screening. Those eligible were contacted through telephone to provide additional information on the program and instructions for the ICBT website. Once participants completed the treatment, a telephone interview was arranged through email at their convenience. The interviews ranged from 12 to 40 minutes in length and inquired about their thoughts about the ICBT course and their overall perspectives regarding their experience with SCI.

**Measures**

**Demographic information.** Demographic variables were obtained via a 12 item self-report questionnaire to collect profiles of the participants involved in this study. Respondents were requested to provide their age, sex, ethnicity, relationship status, highest level of education, and occupation. Questions concerning their SCI etiology, severity, and level were also collected, as well as their initial interest and referral regarding ICBT.

**Patient interview.** Individuals who participated in the ICBT course were asked 18 questions post-treatment. The semi-structured telephone interview inquired about their positive and negative experiences with an SCI. Regarding the course, participants were asked which skills were helpful, what should have been included, and what they liked and did not like about the course in general. Open-ended questions encouraged discussion of recommended improvements, barriers, and facilitators to completing the course. Reported changes in outcomes through involvement in ICBT (e.g., mood, coping ability, self-management, partner relationships) were also inquired. Open discussions also explored how participants prioritize
their mental health and which treatments strategies were used to cope with their injury. See Appendix.

Qualitative Analyses

All interview data were collected, transcribed, and coded by the principal investigator (DE) and her co-supervisor (SM). Patient feedback provided during the interviews were examined using open coding and thematic analysis based on the guidelines by Clarke and Braun (2013). The open-ended nature of the interviews required thematic content analysis to facilitate the identification of main themes by determining the commonalities of concepts in participant responses. This form of data analysis was used for the determination of course feasibility, satisfaction, and suggested improvements. This approach also allowed for an exploration of patient experiences that are commonly shared among this community. The NVivo 11 qualitative data analysis program was utilized to facilitate coding of the data in transcribed text.

The individual interview responses were reviewed multiple times by DE to obtain an overall perspective of common themes and meaning within the transcribed interviews. Relevant themes were repeating ideas that were expressed by two or more participants. Repeating comments and themes were coded and grouped. Common ideas were then divided into three broad categories: (a) SCI experience, (b) ICBT experience, and (c) ICBT outcomes. The process of identifying themes, grouping comments, and re-naming themes was repeated and reviewed as necessary. Naming each category or theme was discussed and determined by an agreement between DE and SM. Major themes, organized into the three broad categories listed above, are presented in Table 2. The themes were discussed until a common agreement was reached for significance and relevance. The final coding scheme was reviewed by the research supervisor (HH).
Results

Demographics and Baseline Data

The total sample of eight individuals in the current study had a mean age of 53.25 (SD = 14.53), ranging from ages 27 to 71 (See Table 1). Half of the participants were male, and half were female. Seven of eight participants reported their ethnicity as Caucasian and one participant reported being First Nations. Six of the participants were from a large city, one was from a small city, and one was from a small town. The highest level of education varied in the sample. Four of eight participants reported completion of a University undergraduate degree, one of eight received a University graduate degree, one had some university education, another had received a college certificate or diploma, and one had a High School diploma. As with highest education level, employment also varied. Three participants reported being retired, two were employed full-time, one reported being unemployed, and one was on long-term disability. In terms of relationship status, five of eight participants reported being married, two reported being divorced, and one reported being single.

Regarding SCI etiology, five of eight participants indicated trauma, two specified the cause as non-trauma, and one said “other.” Five of eight individuals had an injury at the cervical level, two at the thoracic level, and one at the lumbar level of the spine. When indicating the injury level, five of eight reported paraplegia and three of eight reported quadriplegia. Concerning injury severity, seven of eight indicated incomplete and one indicated complete severance or compression of the spinal cord. Seven of eight participants stated that they were currently taking medication. The most commonly prescribed medications were antidepressants (n = 2) and those for pain management (n = 6), including anticonvulsants and opioids.
Concerning ICBT referral and interest, there were diverse answers from the eight individuals. Two participants were referred by a physician, two found the opportunity via social media, two by other forms of media (e.g., newspaper, radio, TV), one from a printed format, and one by another health care professional. Considering interest, two stated that they have mobility issues/medical condition which makes it hard to attend face-to-face therapy, two said they wanted to manage symptoms themselves, two stated that online therapy seemed convenient, one said they simply did not have time for face-to-face therapy, and another heard about ICBT and wanted to try it.

**SCI Experience**

Personal experiences with an SCI that could inform the development of ICBT were explored by asking the participants to express their thoughts concerning both positive and negative consequences of their injury, SCI concern prioritization (e.g., pain, bladder issues, mental health), and additional treatment or coping strategies. Questions also probed for understanding of current social supports and suggestions of needed community support.

**Positive consequences.** Analysis of the interview responses revealed difficulty in stating positive consequences regarding their injuries at first, as there were several long pauses and nervous laughter specified in the transcriptions. It is worth noting that two of the eight individual participants indicated that there were absolutely no positives in having an SCI. Of those that did indicate some positive occurrences, their comments were generally divided into relationship and mental health benefits.

**Relationship benefits.** The majority of positive comments comprised of relationship benefits. Six of eight participants stated that their family has given them immense support following their injuries, some even saying that the injury brought them closer:
Having the accident brought my family closer. Helped me realize how much love and support I have from them. We live in the same city but were always busy with our own lives. The kids have just been great in driving me to my appointments and taking time off when we need it. I’ve had a chance to spend more time with them and the grandkids.

(Participant 3)

Most participants found that this support was crucial for their recovery and have appreciated the love and care from their family members.

Five individuals also stated that they had developed new or stronger friendships following their injury. Several of the participants expressed their gratitude in making new friends with similar interests, difficulties, and successes. Others stated that current friendships had improved as close friends supported them when they needed it the most. Two individuals had also stated that having their faith was beneficial in the sense that their church groups were excellent support for their mental health. Others also indicated that they had exceptional support from their health care providers, including a family physician and a physiotherapist. Overall, positive relationship outcomes were stated by all of the participants to be a contributor in their continued improvement post-SCI.

**Mental health benefits.** Aside from the fortunate relationship benefits listed above, five participants stated that they have had some mental health benefits resulting from the SCI as well. Mentioned mental health benefits include a revived appreciation for life, becoming proactive despite limitations, and developing compassion and understanding for others. Considering appreciation for life, three individuals expressed that time after the injury has allowed them to be thankful for having survived and that they no longer take anything for granted. Furthermore, several participants had indicated that having mobility limitations has made them appreciate their
physical and mental health. With this appreciation, their productivity and proactiveness has increased, some pursuing further studies while others reported doing more of their favourite hobbies and past times. One participant was genuine in their realization that, as a teacher, the injury provided them with useful revelations:

I think compassion and understanding…I was a teacher for ‘142’ years almost [laughs]. I think having had physical problems really helped me understand people who had any other kind of problem. Problems with reading, problems with math, learning challenges. I think it made me more of a compassionate person over all. (Participant 5)

**Negative consequences.** Every participant indicated multiple negative outcomes due to their life changing injury. Some comments were unique, such as increased expenses and the hassle of assistive devices. Common answers included various physical setbacks, mental setbacks, physical barriers, attitudinal barriers, and identity changes.

**Physical setbacks.** Every participant had indicated, first and foremost, that the primary negative consequence of an SCI is the physical setbacks. Six of the eight participants had expressed that pain was a daily occurrence in their lives and, at times, was difficult to manage, dampened their moods, and hindered their already limited mobility. Half of the participants stated that bladder and bowel issues were prominent concerns post-SCI. One participant stated that their pain was severe enough to make sleep almost impossible: “Pain is all it is, all of the time. It never shuts off. I don’t sleep” (Participant 6). Several individuals had shared that it was their top priority in their personal care. Numerous participants also indicated sadness in having to give up sports, work, and activities that they had previously enjoyed because of their injury and physical limitations.
Mental setbacks. Half of the participants also described several mental setbacks in their daily lives, including isolation, guilt, and denial. Concerning isolation, several participants indicated that they felt isolated from social groups, have increased difficulty in finding love, and feel as if they “don’t measure up” as they are “not normal anymore” (Participant 5). Guilt was evident in several interview conversations in the form of needing to depend on others for daily tasks, having constant pity from others, and from needing ample resources to recover.

Physical barriers. Another prominent theme was the identification of accessibility limitations. Physical barriers include obstacles in manmade or natural environments that limit mobility or access. Several discussions included weather condition difficulties (e.g., difficulty getting around in snow) and areas with limited wheelchair accessibility. Accessibility issues were evident in multiple interviews and is shown in the following comment:

You always have to be on guard and you run into situations where it is not something ideal in terms of wheelchair accessibility and wheelchair performance. You know, even little things like sidewalks and snow. Things that we deal with every day in Canada. The world that I live in and the world that everyone else lives in is a completely different world. Even though it doesn’t really seem that way, it actually is on a small level but also on a big scale level. That is something that always sticks to me as a negative because it is always something that I have to fight against…constantly navigating the world around me to make sure that it fits something for me. And a lot of times it doesn’t, and that is a big negative. (Participant 1)

Attitudinal barriers. Attitudinal barriers from others included stereotyping, assumptions of poor QOL due to disability, stigmatization, prejudice, or discrimination. Multiple participants indicated that the general population does not understand the diverse nature of SCI and its unique
outcomes: “They think that because I am not in a chair and because I can walk that I am good, I should be okay. You should feel good because you are not in a chair or you are not completely paralyzed” (Participant 7). Furthermore, individuals have looked at them differently because of their disability. These misunderstandings experienced by these participants have resulted in frustration and distress.

**Changes in identity.** Multiple participants described an identity or role shift following an SCI. A few individuals stated that the change in body image was evident when they looked at themselves but also when others looked at them. For instance, several people also spoke of their difficulty in needing assistance, shifting their role from caring for family members to becoming a care recipient. A few participants specified that they had to take time to grasp that their identity was different: “There is not an awareness that I will be forever different, maybe way better different, but I will be different than who I was” (Participant 7). Overall, participants shared that needing to depend on others for basic care was a negative change in their life.

**Additional management strategies.** Every participant listed some individual strategies that they used to cope with and manage their secondary conditions and their mental health. Most of the sample specified that they utilized physiotherapy, massage, and acupuncture as their main source for pain management and relief. The second most common answer was regular exercise as an outlet for stress relief and symptom management. Although seven of the eight participants take medication regularly, only three had labeled the use of medication as an alternative management strategy. In fact, multiple individuals expressed that they were reluctant to continue taking medication for pain and wished they did not have to rely on them. Other singular comments included talk therapy, online SCI community blogs, diet, and essential oils and vitamins as personal remedies.
Community needs. One question in the interview asked the participants to consider what supports and opportunities they would like to have offered by their community for those with SCI. Most of the participants expressed an interest in having support groups, whether they be online or in person. The importance of these groups, as discussed with the participants, is knowing that there are others with similar difficulties and feeling as if they were not alone. Several people stated that they were not directed to available support services; therefore, creating or bringing awareness to existing support groups is essential as some may benefit from additional support. Some people also shared that they would benefit from community workshops to practice the lessons they had learned from the course with likeminded people.

Participants also wished that there were more physical group activities. According to a few individuals, basketball is the main, if not only, sport available to them that they know of. The opportunity to meet with a group of individuals could be very beneficial for creating connections, getting out of the house, and remaining social:

More activity stuff would be good…I could see if I was constantly sitting at home or in the same environment over and over again, it would definitely be a detriment to my well being and mental health. So, I could see if people did not have enough social support or outside contact or things in the community to do or see or be apart of would be a big issue. Even for me, I need to do more of that. (Participant 1)

Although raised by only one participant, the issue of service access for individuals with SCI is of importance and is expressed by the following quote:

I feel that home support is very minimal, and they keep cutting it…there is not much they can do now. They can’t help you with cleaning or anything like that, so you are put on a list with another agency. I have been waiting for almost a year now for the other agency
to kick in. It is frustrating. You sort of become a full-time manager of your life, and it shouldn’t be like that. I should not have to be always fighting for the basics to survive. Being on disability, they give you the minimum to survive, you know? It should not be like that. It is insane to think someone can live on $13,000 or $14,000 a year. I think the social supports are really lacking. Definitely. In all ways. (Participant 4)

This participant expressed difficulty in dealing with basic needs every single day, which makes it difficult to attend to or care for other aspects of their wellbeing.

ICBT Experience

The semi-structured interview included questions about their experience with the ICBT course. These questions were asked to gain insight into the facilitators and barriers of the treatment process and the likes and dislikes of the course. Common themes emerged regarding the process as well as the content of the course. Suggested improvements and opportunities were also discussed.

Process.

Facilitators to completing the program. A facilitator refers to something that simplifies or eases the process of completing a course, making it less effortful to do so. When asked what made it easier to do the course, the common themes were accessibility, flexibility, motivation, and guided support.

Accessibility. Every participant had commented that the accessible nature of the online course facilitated their experience. For instance, many had stated that they really enjoyed that they did not have to leave their homes to access treatment. Several participants also enjoyed that the course was accessible via their mobile phones. This style of treatment was especially appreciated because a few participants lived far away from treatment centers, were unable to
drive themselves, or reported difficulty sitting while driving for long distances because of pain:

Being able to apply online. I really liked that. For me, I’m sure for all spinal cord injury people too, driving is hard…I wouldn’t have known before doing this course…I can only drive for 20 minutes and then I have to stop. The rehabilitation office where I go is more than that, it is like an hour. So, having it online and being able to see if I even qualify and can do it online. It was really good and is really accessible. (Participant 7)

Additionally, the print option was deemed a convenient facilitator to read and reread the course material. Multiple participants said that they printed the material as having a printed form of it was more natural than reading it online. Additionally, several indicated that being able to write on the printed sheets, highlight, and put tabs helped their process.

*Flexibility.* The flexibility of the course was deemed an important facilitator by many participants. Several individuals specified that they enjoyed the freedom of being able to read the material at any time during the week. This was excellent for those who were busy with other appointments, work, or may have been hindered on days that involved more pain or muscle spasms: “You can do it on a day that you plan and have nothing going on, as opposed to a rigid appointment where it may be a bad day. Online was fantastic” (Participant 8).

*Motivation.* Participants shared that motivation helped them compete the course every week. Different forms of motivation were evident in the sample. For example, some of the participants were motivated to start and finish the course simply because it was something productive to do. Others were very excited by the proceeding content and were self-motivated to learn. Another individual was interested in the research background surrounding the entire course expressed curiosity about the papers and research that would follow. Several people also claimed that their doctors or physiotherapists have encouraged them to apply and continue with
the treatment, which gave them the added push to do so. Multiple participants referred to their faith as a huge motivator and that their church groups were very supportive with their progress and eager to hear what they had learned each week.

Guided support. The majority of the interviewees shared that the guided support from the researcher was very helpful and encouraging. Several individuals expressed that they did not feel alone with weekly contact:

I like that she sends me an email and it is like a check-in. It gets you on track. I like the accountability of being on my own…but I do like that I can contact her anytime I want. Every week just getting an email from her, sending emails and she responds…I don’t feel alone, I think for the first time. For me, once a week is enough…I always want to learn.

(Participant 7)

The weekly emails were said to be an important tool for success and continued progress throughout the course. Many appreciated the check-ins and the comments from the researcher.

Barriers to completing the program. A barrier refers to something that deters the process of completing the course, making it more difficult and effortful to do so. Several participants stated that they had no barriers. Nonetheless, when asked what made their experience more effortful, the common themes were related to the course time frame and personal barriers.

Course timeframe. Many of the participants shared that the course timeframe was a little challenging. A few participants indicated that, if they still worked full time, it would have been very hard to finish the course in the allotted timeframe. Generally, the timeframe was deemed a little tight, but acceptable to follow. Multiple participants stated that the course could be longer. One participant specified that the further apart the lessons were, the more that it made him go
back and reread the initial lesson. Additionally, several also shared that making huge revelations during the course could have been followed with more time to appreciate the lesson:

I didn’t like the timeline or the expectation that this had to be done in this amount of time. I would have liked to have had more time to look at things. I realize you have to have a sort of timeline or else people would take forever and wouldn’t move ahead. It was a little too quick for me. Especially the identifying the thoughts and beliefs, because that was such an _ah ha!_ part of it for me. (Participant 5)

Another participant indicated that they learned a lot during the week, completing the lessons and material and then moving on. However, more time was needed to deeply incorporate the newfound lessons into his life:

I think for the level of research…and how widespread it is…especially for people with spinal cord and mental health issues, physical health issues and wellbeing, that is obviously a lot of life long initiatives. And to compact that into five or six weeks, I found that difficult. But, I mean, I still did the best that I could and took the skills with me and went forward with them and tried not to forget the ones that really stuck with me, that is for sure. But I think that that is a bit…that is probably the only drawback with the research is that it is a tight time frame. It is hard to expect really big results when you are giving someone like myself who has dealt with anxiety and depression and physical pains and nagging injuries for seventeen years to all of sudden one week think okay, what is the difference between this week and last week? How am I different? What am I thinking differently or how am I acting differently? That is a bit hard. (Participant 1)

**Personal barriers.** There were some common barriers that were more personal that made it challenging, at times, to continue with the course. The most common personal barrier was a
lack of motivation. The self-directed nature of the online modules was difficult for some individuals to manage and complete. For those that had this difficulty, they indicated that they really enjoyed the online aspect; however, in-person meetings made them feel more accountable. This view is reflected in the following quote:

> Just getting myself to sit down and do it. Since it was online and pretty much dependent on me to complete, it was hard to keep motivated. When it’s an appointment and you have to be somewhere, it’s hard to miss those but in this case, I really only had to answer to myself and sometimes I ended up pushing things off. (Participant 2)

Symptom interference was also a challenge for several participants, whether from physical or mental difficulties. One participant reported that sitting for long periods of time was very hard and, therefore, completing the lessons was difficult because of pain. Another participant felt as if her personal realizations from the course were overwhelming: “Not the content, but what it brought up. It makes you aware of things…some things you are not ready to face” (Participant 4). At times, she found it difficult to think about the skills that the course was trying to foster and believed that she would need to participate in talk therapy while doing the course.

**Content.**

*Likes.* All of the participants appreciated and enjoyed the content of the course, especially the lessons that discussed cognitive restructuring and activity pacing. Multiple individuals said that the material was very well structured and organized. One participant appreciated the website’s ease of access: “The webpage was done very well. It was very easy for someone without terrific computer skills to log on and to read it” (Participant 8). Others indicated that the graphics were great, and the overall design was well done. Participants also
appreciated the real case stories that they could follow as they completed the lessons. Several said that these stories were relevant and encouraging to read.

**Dislikes.** A common dislike of the course content was the ample amount of reading. Several participants had indicated that the amount of reading made the lessons dull. Additionally, although several participants appreciated the case stories, a few participants questioned their relevance and diversity. This view is expressed in the following quote:

The examples were not completely relevant. It’s not that I disliked the examples, I read them all and they were fine. But, I think those experiences that those examples were quite narrow…I didn’t really gain anything from them. This is not my life, and this would never be my life. So, I sort of went by them wayside. I think a bigger set of examples might work out…Specifically, with spinal cord injury, there are so many different variations in people that I met and have read about. So, just having one example may be a little bit misleading I suppose in terms of spinal cord injury and the way that people live with it and deal with it. (Participant 1)

**Suggested improvements.** During the interview, participants were asked if they could think of any improvements to make the course better for others. There were a few participants who did not think the course needed any changes. However, several ideas were shared about the content and the design of the course. One individual stated that additional resources would have been beneficial: “I would have liked more resources. I would have liked if you could go online and read this…or additional articles on this…or something like that would have been helpful. Especially at the parts I was having trouble with” (Participant 5).

Regarding the overall design, a few participants indicated, as stated above, that there was too much reading. They suggested that the material should be more interactive and include
videos or games that would maintain their interest. Another participant indicated that a chat room or discussion forum would be wonderful to include so they could interact with other participants: “I didn’t like that there wasn’t a discussion or chat room for us to interact with other participants. It’s hard to connect with people that are in the same situation, and it would’ve been nice to have someone to discuss things in real time with others in similar situations” (Participant 2).

The final common suggestion involved more time with the researcher or someone with a psychological background. This may include more therapy, more counselling, or increased one-on-one communication of any kind. Some of the interviewees said that they expected more communication throughout the process. This common view is expressed in the following comment:

I thought there would be more conversation between the counsellor and myself. I really enjoyed working through it, reading it, and not being pressured to go somewhere and do something. So, it was a lovely course that way. But you know, sometimes talking to someone else helps you put things in perspective and clarifies them when you have to explain how you are feeling or what you are doing. I felt that was a missing component. Not that I wanted someone to say you have to do this or you have to do that. But just to hear…to have a person there who was interested. Fifteen-minute check-in, not every week even. If it was every couple of weeks, it would be nice. (Participant 5)

More time communicating and more options regarding the amount and type of communication may, therefore, benefit the participants and enhance their experience.

**ICBT Outcomes**

Outcomes from the ICBT treatment were expressed in answers to questions about learned skills, changes in the past three months (i.e., mood, coping, self-management), and changes in
relationships and in the self. As a result of treatment, common themes regarding effective skill development, mental health prioritization, and personal realizations surfaced.

**Effective skill development.**

**Changing perspectives.** When asked what skills they found most helpful from the course, almost every participant indicated that cognitive restructuring, or thought challenging, was the most beneficial. They had many positive things to say about this part of the program and were undoubtedly grateful for the insight. Developing this skill has aided many in changing their outlook and, consequently, changes their emotional wellbeing: “Thinking about those limiting thoughts…I think my thoughts are healthier overall. I feel emotionally in a better place. I am less depressed, I have more possibilities of dealing with problems now” (Participant 5). Participants stated that the process of developing this skill has been enlightening, helpful, and has improved their confidence. Additionally, some even stated that having this lesson made them realize how normal their thoughts were; therefore, they did not feel alone. Recognizing repetitive thoughts was a common theme:

Thought challenging has been a big one for me. I was not even aware of repetitive thoughts I had, how critical I was of myself. Even realizing, slowing down, journaling, looking at what are the messages I am saying to myself over and over. That has been the most effective. (Participant 5)

Participants also indicated that understanding their thought patterns helped them redirect their perspectives into more positive outlooks:

Realizing how to challenge myself with those thoughts, specially anxiety thoughts of thoughts of sadness or fear. Fear was a big one. To realize that I don’t need to just be having those same patterns over and over and over again. That I can recognize those
patterns and come together with an actual concrete plan...to understand those thoughts a little bit better and redirect them into something...channel them into something positive in my life. That is probably the biggest difference, I would say, within the last couple of weeks. Since I started. (Participant 1)

**Activity pacing.** The second most frequent indication of helpful skill development involved activity pacing. Many of the participants shared that the lesson gave them insight into their planned activities and allowed them to make some changes to increase the amount of positive activities in their lives and to spread out certain activities to control their pain. The realization that pacing oneself can be beneficial has made many of the participants appreciate and utilize the advice. Several individuals have more energy and increased self-management because they track their activities and reflect on them:

If I feel good, I do ten times more things than I should. Since taking this and keeping track of things, I keep a journal and I do a headspace meditation everyday. When I have to write it down and keep accountability of myself and think back on my day...like, oh, you had a good day, but you worked out for this many hours and took the dog out 12 times, that may be a little too much. So, my self-management has gotten way better because I have the energy to do it. I am not just trying to survive like I was before, and I was barely even doing that. (Participant 7)

They later went on to explain that pacing their exercise routine has reduced the amount of pain and eating issues that they generally experience due to an SCI:

When I did rehab, physio, or the gym on my own I never had any pain, so I tended to stay longer there. By about 1:30 or 2:00, the pain would start coming and by 5:00 it would be brutal. I would not leave work until 9:00, so all of those hours of just feeling awful. Then
I would come home and just drug up and just go to bed and then survive the next day. Since I have been home, I just exercise but break it up. Instead of doing my full workout in the morning…I will split it up. It has actually pushed when I start feeling gross back about 4 hours…I have swallowing issues too, I have to have smoothie or mints kind of food so getting calories was an issue too because it was exercising too much and not eating enough. Now, breaking it up makes it better and easier for me eat so I am not so nauseous by the time dinner comes so I can actually eat dinner. (Participant 7)

Other participants had similar stories of pain and distress. Individuals shared that adjusting and changing their regular pace of work and activities post-SCI was difficult. Several people indicated that activity pacing has helped with their fatigue and pain. Rather than pushing through and finishing tasks when the pain was unbearable, resulting in later fatigue, they reported that breaking up their daily activities has reduced their symptoms and has increased their energy levels.

Behavioural activation. Another valued skill that many participants have appreciated learning is behavioural activation, where they aim to increase engagement in pleasant activities. Many participants began actively planning more interesting and fun activities in their daily lives. For example, one participant, who had been gifted a puppy from her husband, now plans more fun activities with the pet that she genuinely enjoys. Another participant stated that they engage in activities as an active coping strategy, such as working on small projects in the garage when they can since it was a hobby they used to enjoy. Finally, another participant shared that they play music and do personal writings, such as poetry, lyrics, and thoughts, to express themselves and enjoy their time doing so.
Mental health prioritization. The participants were asked what their main priority was concerning their injury and where mental health fell on that list. Mental health was commonly listed as a second priority after pain. One individual said mental health was their number one priority, and another said it was third. No one listed mental health as lower than third on their list. Some had said that the course made them realize that mental health should be prioritized: “Mental health is also important. I’m not sure how I would’ve rated it before the course, probably a lot lower. But now that I’ve experienced this program, I can see how it plays a greater role. At this time, I would rate it second” (Participant 5). In general, participation in this course has made those in this sample consider mental health as an important concern in their daily lives that is worthy of care and attention.

Discussion

The aim of the present study was to examine patient perspectives of ICBT expressed in post-treatment interviews. The secondary objective was to explore the participants’ experiences with SCI and their needs in order to inform future development of the ICBT program. Overall, the qualitative findings extend the existing literature in suggesting that ICBT is an acceptable treatment for psychosocial issues post-SCI. Regarding the participants’ experiences with the course, the online accessibility was highly appreciated as the reality of an SCI makes it difficult for many to travel independently to in-person appointments due to physical limitations (Fann et al., 2011). Participants also appreciated the flexibility of attending to the material whenever they had free time and were feeling well enough to do so. These frequently cited benefits of ICBT are consistent in research in other health conditions, including chronic pain (Hadjistavropoulos et al., 2018), fibromyalgia (Friesen et al., 2017), and cancer survivors (Alberts et al., 2017).
Specific feedback about the course content revealed that the participants appreciated the skills that they had learned and how the information was presented on the website, including the design, ease of access, and the option to print the material. The most frequently mentioned beneficial skill from the course was thought challenging. Developing this ability aided many in altering their outlook into more positive perspectives; consequently, they have experienced changes in their emotional wellbeing. Activity pacing was also an effective skill that the participants valued. Many stated that balancing their planned activities has helped them manage their stress, fatigue, and pain. Additionally, increased engagement in pleasant activities has improved their moods through lessons on behavioural activation. Keeping up with personal interests and staying active despite physical restrictions is a commonly used strategy for maintaining psychological wellbeing in SCI groups (Geard, Kirkevold, Løvstad, & Schanke, 2018). As these lessons are main components of CBT, these comments suggest that the core content of the modules should be retained.

Real case stories of persons with an SCI were presented to tailor the program to this population. Research on teaching material has indicated that the inclusion of personal narratives is seen as beneficial for many individuals (Hinyard & Kreuter, 2007). The participants generally valued and appreciated the real SCI case stories included in the modules; however, some questioned their breadth and relevance. These opposite opinions reveal the difficulty in meeting everyone’s needs and the reality of the diverse experiences with an SCI, making it difficult to present only a few cases that will apply to everyone.

The guided support from the researcher was deemed an important facilitator for the participants. The weekly emails were appreciated, and they found the contact to be helpful as it provided a sense of being supported during the process. Some perceived the weekly guided-
assistance to be sufficient, while others desired more contact and support. These comments are in line with Migliorini et al.’s (2016) ICBT study for individuals with SCI. In their online program, clinician support was optional. They found that those who utilized the option found it to be helpful and, therefore, recommended that future studies should include guided features. Overall, the inclusion of a guide was deemed enormously beneficial for the participants in this study and may need to be extended further in future SCI programs. These implications are consistent with the literature in that there may be benefit in tailoring therapist support to client needs (Rozental et al., 2015).

The main barrier that was mentioned by participants during the interviews was related to the course timeframe. Several participants indicated that completing the course within eight weeks was challenging when they had busy schedules but was generally acceptable to follow. It was expressed that more time with each lesson would allow them to fully appreciate and incorporate them into their lives. The suggestion for increased flexibility of the treatment timeline to meet learning needs is consistent with past research (Rozental et al., 2015). Tailoring ICBT to client needs has shown to be helpful for those with severe depression (Johansson, et al., 2012). Additionally, Gratzer, Khalid-Khan, and Balasingham (2018) found that working collaboratively with patients to determine timeframes that works best with their schedules and presenting symptoms resulted in the best outcomes. However, other studies have shown that deadline flexibility, where lenience concerning deadlines for homework submission and allowance of extra time to work with a given module, is negatively associated with ICBT symptom outcomes (Paxling et al., 2013; Svartvatten, Segerlund, Dennhag, Andersson, & Carlbring, 2015). Therefore, although providing flexible deadlines may benefit SCI clients with
busy schedules and symptom difficulties, structured and limited timeframes are still of importance.

Personal barriers were also mentioned, including lack of motivation due to the self-directed nature of the modules as well as symptom interference, such as pain and fatigue. These two barriers were also identified in ICBT programs for cancer survivors (Alberts et al.’s, 2017) and individuals with fibromyalgia (Friesen et al., 2017). Thus, future research should address these consistent barriers by implementing resource education to relieve symptom distress and strategies to improve motivation.

Of importance, the results also summarize SCI experiences that the participants share. This information may serve to inform the further development of ICBT programs for this population because of the unique outcomes of this injury. The participants expressed both positive and negative consequences related to an SCI. The most common positive outcome was relationship benefits, including immense familial support and closer relationships post-SCI. The importance of social support and the appreciation of existing relationships have been mentioned as significant factors for individual resilience, recuperation, and wellbeing following an SCI (Duggan, Wilson, DiPonio, Trumpower, & Meade, 2016; Lennon et al., 2013). Building relationships and communicating with health professionals was included in the ICBT course; however, adding lessons related to communicating with caregivers and close support systems specifically, since SCI often necessitates support from others, may be valuable.

Furthermore, many participants also developed a revived appreciation for life and newfound compassion and understanding for others after their SCI experience. These positive outlooks helped the participants be thankful for having survived and to not take anything for granted. Reconstructing narratives surrounding the injury experience as having contributed to
something positive for one’s sense of self has also been listed in previous research (Lennon et al., 2013). Appreciation for life can be further improved through the addition of material on acceptance and commitment therapy-based modules.

Participants indicated that being proactive was important for their physical and emotional wellbeing. The course already promotes productivity and proactiveness through behavioural activation, so these lessons should be maintained and highlighted. Currently, participants in ICBT list activities that they can complete to increase their behavioural activation. Lennon et al. (2013) indicated that engaging in meaningful activities specifically can promote positive self-narratives. This may be an important factor to incorporate into future developments of ICBT for SCI populations as participants in this study benefited from finding meaning in their difficulties. The added idea that engaging in activities that are meaningful, as opposed to maybe just going for a walk, may help increase proactiveness and simultaneously foster a positive sense of self which results in important outcomes, as observed in this study and in others (Lennon et al., 2013).

There were numerous negative consequences of an SCI that were indicated in interview responses. Individuals reported chronic pain, bladder and bowel issues, and loss of sleep. These secondary conditions resulting from an SCI are significant to target when trying to ameliorate an individuals emotional wellbeing; therefore, discussing them may be important in ICBT programs. Many of the participants shared that pacing their activities, particularly exercise, reduced their pain symptoms. The program currently includes sections that discuss the implications of a cycle of overdoing or underdoing activities which is supplemented with understanding acute and chronic pain outcomes. Thus, the relationship between overexertion and increased pain should continue to be highlighted in the lessons.
Additional management strategies that they use to cope with their injuries were also expressed in interview responses. For instance, most of the sample specified the utilization of physiotherapy, massage, regular exercise, and acupuncture as pain-management strategies. Other singular comments included talk therapy, online community blogs, diet, and essential oils and vitamins as personal remedies. The benefits of using multiple strategies to maintain health and wellbeing, including being active and maintaining positive attitudes, has been a common theme in other qualitative studies on SCI groups (Geard et al., 2018). Listing possible alternative management strategies may give future participants some options they have not previously considered to improve their physical and mental wellbeing. The interview data showed that many participants felt they would benefit from an SCI community discussion board among participants, which may allow for an opportunity to discuss strategies or interventions that they have used to manage their symptoms. From this, a sense of support from similar individuals can be fostered but would need to be moderated by a professional.

Overall, these findings indicate that ICBT has significant potential in benefiting the lives of many who experience psychosocial issues post-SCI. The feedback identified important considerations for the future implementation of ICBT within this population. As research incorporates the feedback from those receiving mental health treatment, ICBT will be shaped to deliver even better care for the SCI population.

Limitations

Some limitations to the research must be addressed. First, the sample included in this study was small. A larger sample would allow for increased examination of themes that arise regarding ICBT and SCI experiences. The unique nature of every SCI makes it difficult to generalize outcomes from only eight individuals. Moreover, the participants in this study were
predominantly Caucasian, from large urban cities, and were married; therefore, these themes may not be transferable to all individuals with SCI. Future studies should include more individuals to increase the generalizability of outcomes.

Second, the qualitative nature of the study presents limitations as the interpretations of patient perspectives are prone to researcher biases. Research that analyzes interview transcriptions using thematic analysis require subjective judgments when developing themes and determining commonalities between comments. Assuring that multiple researchers agreed on labelled categories and themes was an attempt to control for bias in this study. Third, as feedback was received over the phone, there may have been some hesitation in providing answers to sensitive subjects. For instance, some individuals may feel more comfortable expressing concerns or difficulties over email rather than over the phone. However, interviews allow for deeper understanding of patient perspectives as verbal conversations encourages participants to elaborate and explain their responses in greater detail by using open-ended questions.

**Strengths and Future Research**

Despite limitations, the present study had many strengths. First, the focus on SCI is significant as there are relatively limited studies examining the acceptability of online therapy programs designed specifically for this population. Second, the sample, although small, had a distribution of demographic characteristics that are in line with general SCI populations (“A look at traumatic spinal cord injury in Canada,” 2017). Third, the interviews were conducted at the end of the program completion; thus, their experiences and perspectives were less likely to be forgotten. Fourth, qualitative analysis allowed for a broad understanding of experiences that allows for the tailoring of programs to individuals with SCI specifically. This approach is necessitated by the limited studies for online therapy in SCI populations.
Future research should acquire more perspectives from diverse individuals because of the unique nature of each SCI and its outcomes. Moreover, the patients’ suggested improvements, including more interactive videos and possible discussion forums for the participants, should be considered. Additional case stories that cover diverse outcomes of injury should be included for improved patient-centered care tailored to their experiences. Allowing personalized course timelines and increasing contact with the guided support represent opportunities for upcoming developments of ICBT for SCI populations. With the addition of these potential features, considering cost-benefit analysis from the implemented changes is crucial moving forward.

Finally, as support was a prominent theme in the interviews that promotes wellbeing post-SCI, future research should consider hearing from and supporting SCI caregivers, so their wellbeing is assured as they are vital in caring for individuals with SCI. Better understanding of how ICBT should be integrated within the healthcare system to ensure its use should be seriously considered as part of stepped-care models of service for those who can benefit from online therapy, whether it is someone with an SCI, their caregiver, or anyone else.

Implications

SCI is a severely distressing event that greatly affects both physical functioning and QOL. Following injury, individuals must rely on others for their care and rehabilitation, which can be distressing and disheartening for the individual with SCI. There is a need for mental health services as shown by the high prevalence of psychological distress within SCI populations. Unfortunately, individuals who need these services cannot always access them. Research has shown that of those with an SCI diagnosed with depression, only 11% received psychotherapy (Fann et al., 2011). Several barriers have been specified in receiving treatment for psychosocial issues post-SCI, such as needing transportation to in-person appointments as well
as accessibility and cost of the treatment itself (Fann et al., 2011). The creation of online therapy modules is a possible solution to overcome these barriers. In a study by Goodman, Jette, Houlihan, and Williams (2008), 69.2% of their SCI participants used a computer, and 94.2% had access to the internet. These results show that ICBT has great potential since many targeted SCI patients use computers and over half already used it for health-related sites.

By determining the common themes, needs, and experiences of those with SCI, appropriate psychological interventions can be implemented and adjusted based on their feedback. To our knowledge, this is the first study to qualitatively examine the perspectives of ICBT designed for individuals with SCI. Considering the findings, the Chronic Conditions Course for Persons with SCI may be an acceptable treatment for those with psychosocial issues following their injury. Having feasible, accessible, and effective ICBT courses for individuals with SCI can aid those with psychological distress following their injury and allow patients to foster self-management techniques to regain and maintain full, functional lives. As the field of online therapy is continuously growing, tailoring programs for specific conditions is possible by considering patient perspectives of its development. Moreover, as research hopefully incorporates the knowledge and opinions of those receiving mental health treatment, ICBT can be designed to deliver improved care to those who need it.
References


behavioral pain management program in a routine online therapy clinic in Canada.


Table 1. Participant Characteristics

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Table 2. Emergent Themes Based on Analysis of Semi-Structured Interviews

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<th>Category</th>
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<td>Relationship benefits</td>
<td>8, 21</td>
<td>Improved family bond, new/stronger friendships, support</td>
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<td>Mental health benefits</td>
<td>5, 11</td>
<td>Life appreciation, compassion, proactive</td>
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<td>Negative consequences</td>
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<td></td>
<td>Physical setbacks</td>
<td>8, 22</td>
<td>Pain, bladder/bowel issues, muscle spasms, less sleep</td>
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<td></td>
<td>Mental setbacks</td>
<td>4, 11</td>
<td>Guilt, denial, isolation</td>
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<td>Physical barriers</td>
<td>3, 4</td>
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<td>Attitudinal barriers</td>
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<td>Changes in identity</td>
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<td>Role transition, body image changes</td>
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<td>Alternative management</td>
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<td>Community needs</td>
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<td>Support groups, physical activities, access to services</td>
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<td>Process</td>
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<td>Facilitators</td>
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<td>Accessibility, flexibility, motivation, guided support</td>
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<td>Barriers</td>
<td>8, 14</td>
<td>Course timeframe, self-motivation, pain</td>
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<td>Likes</td>
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<td>Content, case stories, design</td>
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<td>Dislikes</td>
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<td>Amount of reading, case stories</td>
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<td>Suggested improvements</td>
<td>4, 8</td>
<td>Participant chat rooms, increased guided support, videos</td>
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<td>ICBT Outcomes</td>
<td>Effective skill development</td>
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<td></td>
<td>Changing perspectives</td>
<td>6, 20</td>
<td>Thought challenging, positive outlook</td>
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<td>Activity pacing</td>
<td>5, 12</td>
<td>Planning and scheduling activities</td>
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<td>Behavioural activation</td>
<td>3, 4</td>
<td>Increasing pleasurable activities, proactivity</td>
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<td>Mental health prioritization</td>
<td>5, 5</td>
<td>Increased focus on emotional wellbeing</td>
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<td>Total</td>
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<td>8, 219</td>
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*Note. N = number of participants; references = number of mentions in interview data*
Appendix: Patient Interview

1. What are some of the positive consequences of sustaining a spinal cord injury?
2. What are some of the negative consequences of sustaining a spinal cord injury?
3. What are skills you learned in the course that you found the most helpful?
4. What are skills you hoped to learn but were not part of the course?
5. What did you like about the course?
6. What did you not like about the course?
7. How would you improve the course of others?
8. What were some barriers to completing this course?
9. What were some facilitators that helped you complete the course?
10. If you were to prioritize your concerns related to the spinal cord injury (e.g., pain management, bladder issues, mental health), what would be your most important priority? Where would mental health fall on this list?
11. How had your mood changed in the last three months?
12. How has your coping ability changed in the last three months?
13. How has your self-management ability changed in the last three months?
14. Have you noticed any other changes in yourself in the last three months?
15. Do you feel like this treatment has changed your relationship with your partner?
16. Are there any specific treatments or strategies you have utilized to cope with the injury?
17. What social supports do you have to help you?
18. What are some supports that you feel should be offered in your community?