1	Exploring the peer mentorship experiences of adults with spinal cord injury
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24 Abstract

The purpose of this study was to understand the peer mentorship experiences of adults with spinal cord injury (SCI) through a self-determination theory (SDT) lens. Semi-structured qualitative interviews were conducted with 13 adults with SCI (i.e., mentees) who received mentorship from fellow adults with SCI (i.e., mentors) as part of an existing provincial peer mentorship program. There were two analyses conducted in this study. The first was deductive, which involved organizing relevant data as per the three basic psychological needs of selfdetermination theory (i.e., autonomy, competence, and relatedness). Concerning autonomy, mentees expressed they were able to make their own decisions and their mentors' personalized their sessions. Specific to relatedness, the mentees discussed that their mentors cared and empathized with them, which helped them connect with their mentor. In terms of competence, mentees explained that their mentors provided verbal encouragement and helped them realize they were capable of successfully completing tasks. Some mentees also highlighted how the mentors did not listen to their needs, indicating need thwarting behaviours. The second analysis was inductive and focused on the participants' descriptions of their experiences. Mentees expressed the importance of their SCI community organization, the impact of mentoring on their families, and the positive outcomes they associated with peer mentorship, such as participation in daily and social activities. Taken together, the present findings extend our understanding of SCI peer mentorship from the perspective of the mentee and particularly from an SDT angle.

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**Keywords:** spinal cord injury, peer mentorship, self-determination theory, basic psychological needs, participation

46	Impact

- It is the first study to report, from the mentees' perspectives, mentors' behaviours that support or thwart the basic psychological needs. As such, it provides an understanding of mentors' interpersonal behaviours that support or thwart the psychological needs.
- SCI peer mentorship programs could provide training to their mentors that focus on empathizing with mentees, maximizing mentees' autonomy and decision making in the mentorship process, and enhancing mentees' feeling of capability to complete specific tasks. These programs could also start (or continue) to involve family members in the peer mentorship process as SCI peer mentorship appears to be helpful for both the individual with SCI and their families.

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Exploring the peer mentorship experiences of adults with spinal cord injury An estimated 86,000 people live with spinal cord injury (SCI) in Canada, and the number of newly injured adults increases each year (Noonan et al., 2012). The physical and physiological adjustment required after SCI is often difficult and may largely impact quality of life (Krause, 1997). As such, adults with SCI require strategies to help them adjust to their new post-SCI realities. SCI peer mentorship is one strategy that has received increased attention as an intervention to enhance the lives of adults with SCI. Peer mentors are individuals who provide emotional support and an empathetic understanding to assist mentees (individuals who receive council from a mentor) with the adjustments to living with a SCI (Hernandez, Hayes, Balcazar, & Keys, 2001; Veith, Sherman, Pellino, & Yasui, 2006). Peer mentorship has been shown to have a positive impact on wheelchair skills (Best, Miller, Huston, Routhier, & Eng, 2016), health outcomes, and quality of life (Gassaway et al., 2017; Houlihan et al., 2017; Sweet, Noreau, Leblond, & Martin Ginis, 2016). To gain insight into peer mentorship, an increasing number of studies have used qualitative designs to allow SCI peer mentees to share their experiences (Beauchamp et al., 2016; Haas, Price, & Freeman, 2013; Veith et al., 2006). In one qualitative study, Veith and colleagues (2006) found that mentees expressed how mentorship helped them gain practical skills, receive emotional support, and develop a new sense of identity. Similarly, mentees in Haas et al.'s (2013) study said they received practical information and emotional support from their peer mentors. Mentees in both these studies highlighted that empathy from mentors was one of the most important aspect of their mentorship experience. Indeed, the manner through which peer mentors interact with their mentees has been found to either enhance or diminish the mentorship experience (Haas et al., 2013; Standal, 2011). For example, Standal (2011) noted that peer mentors may not always create an environment that

maximizes learning and, that empathetic understanding does not automatically emerge from shared experience. Standal argued that shared SCI experience could actually hinder empathetic understanding. This claim conflicts with previous research as mentees often highlighted their appreciation for their mentor's ability to empathize.

In light of these conflicting findings, the complexity of the relationship between mentors and mentees needs further examination, including an exploration of how SCI peer mentorship social contexts are created. Looking at this social context through a theoretical lens could provide a framework to understand successful and supportive peer mentorship. One theory that emphasizes the importance of creating supportive social contexts is self-determination theory (SDT; Ryan & Deci, 2017). According to SDT, three psychological needs are necessary for growth/well-being: autonomy (i.e., volition in your actions), competence (i.e., belief in your actions), and relatedness (i.e., sense of belongingness). The social context plays an important role in the satisfaction of the psychological needs and this tenet has been demonstrated across multiple life domains such as family, work, and leisure activities (Milyavskaya & Koestner, 2011), including for adults with a physical disability (Banack, Sabiston, & Bloom, 2011; Saebu, Sørensen, & Halvari, 2013). However, the social environment can also thwart these psychological needs and lead to lower well-being (Deci & Ryan, 2002). SDT could then be an ideal framework to investigate SCI peer mentorship.

Our group recently demonstrated through a static group comparison design that peer mentorship predicted greater satisfaction of the needs of competence and relatedness (Sweet et al., 2018). Other quantitative investigations have also supported the role of SCI mentorship on improving mentees' self-efficacy, a concept similar to the need of competence in SDT (Gassaway et al, 2017; Haas et al., 2013). In their qualitative study, Beauchamp et al. (2016)

investigated the nature of effective SCI peer mentorship from the perspective of mentees using transformational leadership (Bass & Riggio, 2006), a popular theory in the field of leadership, as their guiding framework. In addition to supporting the tenets of transformational leadership, Beauchamp and colleagues presented findings that were not captured by this framework. These results could however be related to constructs from SDT. For example, the mentees expressed a greater sense of competence (e.g., "... he taught me [that] if you can do it once, it'll get easier. Keep doin' it and you'll be able to do it without thinking about it. And he was right'') and relatedness (e.g., "I could talk to him, [...] he really was able to connect with where I was at that moment."; Beauchamp et al., 2016, p. 1890). As such, SDT could explain these findings and provide a new perspective to understand peer mentorship experiences among adults with SCI. To date, no study has used SDT to describe SCI peer mentorship. This study was the first to investigate the social context and mentoring behaviours that could support or thwart the mentees' basic psychological needs.

The objective of this qualitative study was to understand SCI peer mentorship through a self-determination theory lens by gathering mentees' perceptions of their experiences with their mentors. The specific research questions we attempted to answer were: To what extent did the mentees feel the social context created by their mentors aligned with SDT's basic psychological needs? In what ways did the mentees feel that peer mentorship impacted their life? Which peer mentorship strategies did the mentees perceive to be particularly effective?

121 Methods

By using a qualitative design, participants articulated aspects of their SCI peer mentorship experiences that they felt were relevant and important to this context. The present study was guided by a critical realist epistemology. Critical realism follows many of the ideals of traditional, objective science (i.e., quantitative research), but acknowledges that "reality is imprecisely apprehendable" (Daley, 2007, p. 30). Thus, there is inherent subjectivity with the knowledge generated from this study.

# **Participants**

Participants were members of the provincial organization and received mentorship from experienced mentors employed by provincial organization's mentorship program. The mentors received basic training on the organizational resources and counselling strategies, but were not trained in SDT. Some mentors did have educational backgrounds in counseling related degrees (e.g., social work). This provincial organization's mentorship program is unstructured as it focuses on the needs of the mentees, thus number of interactions varied by mentees. As a result, participants received formal mentorship from the mentors within inpatient rehabilitation and/or community-based settings and informal mentorship from mentors during events held by the organization. The peer mentoring interactions were open-ended and may have included general conversations about SCI, discussions with family members, or informal social outings.

For this study, convenience and criterion sampling was used to select participants. That is, participants who indicated an interest for this qualitative study from the larger quantitative study that recruited peer mentees from the provincial organization's peer mentorship program were contacted (Sweet et al., 2018). Further, participants were required to have: (a) a SCI, (b) been involved in at least four peer mentorship interactions within the past five years<sup>1</sup>, (c) not been diagnosed with a cognitive or memory impairment by a medical or health professional, (d) been over the age of 18, and (e) had the ability to converse in either French or English.

In total, 13 adults met the criteria and provided consent to participate in this study. The

<sup>&</sup>lt;sup>1</sup> According to the community-based organization's peer mentors and staff, meaningful discussions typically began around the fourth interaction. The first and second interactions are introductory discussions.

sample consisted of 9 men and 4 women with a mean age of 49.3 years who have been living with SCI for an average of 15.3 years. More than half had a traumatic SCI (77%), had paraplegia (54%), used a manual wheelchair (61%), were single (54%), and had at least a bachelor's degree (61%). Five mentees reported interacting with one mentor only, and eight reported interacting with two to four mentors. We continued scheduling interviews with eligible participants until the point where we were no longer generating new concepts from the interviews (i.e., data saturation). Our research team concluded that we had reached data saturation after the 13<sup>th</sup> interview.

### **Procedures**

Approval from our university research ethics board was obtained. A female research assistant with a Master's degree and qualitative interviewing experience contacted the participants by telephone to outline the purpose of the study. She completed online modules on SCI given she had no prior contact with these participants or other adults with SCI. Telephone meetings were selected to help accommodate participants' mobility impairments, and because our sample resided in different geographical locations. Prior to the telephone meeting, each participant was sent a copy of the consent form so they could review the conditions of the study as well as their rights as a research participant. At the beginning of the phone meetings, the consent document was verbally explained to each participant and participants responded to the following statement: "If you understand and accept these conditions, please indicate your consent by verbally informing me 'Yes, you consent' or 'No, you do not consent'. All 13 participants provided verbal consent to participate in one interview.

### **Data Collection**

Interviewing is a type of qualitative method that has been commonly used by social

scientists (Sparkes & Smith, 2014), including to study SCI peer mentorship from the perspective of mentees (e.g., Haas et al., 2013; Veith et al., 2006). During the one-on-one interviews, participants are encouraged to reflect, re-construct, and expand upon their knowledge of and experiences with a phenomenon (Rubin & Rubin, 2012). Interviewers are active participants in the co-creation of knowledge during interviews, as they listen to the insights and perspectives of the knowledge holders (i.e., interviewees) and then ask probing questions based on the comments provided. The knowledge generated through qualitative interviews provides an in-depth and relevant understanding of real-world issues as perceived by the individuals who have the most experience with phenomena.

In these interviews, we asked participants to reflect about their formal or informal peer mentorship interactions with the provincial organization's mentors. We allowed participants to discuss any interactions with these mentors, regardless of when (i.e., days to years earlier), which context (i.e., during rehabilitation or in the community), and how (i.e., a scheduled mentorship interaction or informally at an event). We created an interview guide to direct these conversations with participants (see Appendix A in supplementary online material). The same interview guide was used with each participant. However, conversations between interviewer and participants occasionally deviated from the interview guide to allow for a natural dialogue as well as to inquire into unforeseen topics that arose during the interviews. Participants also had the opportunity to clarify/provide additional comments, or ask questions related to the study.

### **Data Analysis**

Audio recordings of the interviews were transcribed verbatim and the data were stored and analyzed using version 10 of the NVivo software package (QSR International Pty Ltd). We used a content analysis because it is a well-established method of organizing and describing

participants' experiences through analyzing, identifying, and reporting themes in a data set (Sparkes & Smith, 2014). There were two analyses conducted in this study (see Figure 1). The first was deductive (i.e., top-down); that is, we used a directed content analysis to organize the interview data into themes using SDT. Through this process, we found that most of the interview data were related to basic psychological needs outlined in SDT. However, some data were not related to SDT but were relevant to the participants' experiences. As a result, the second part of the analysis used an inductive (i.e., bottom-up) approach called hierarchical content analysis to organize the qualitative data, in which we did not use a guiding theoretical framework and focused solely on participants' language and descriptions of their experiences to direct the generation of themes.

Deductive. The three basic psychological needs of SDT (autonomy, competence, and relatedness; Deci & Ryan, 2002) were the higher-order themes for this analysis (see Figure 1). The deductive analysis began by KC reading the interview transcripts several times to gain familiarity with the data. KC then organized data extracts, which are blocks of text that encapsulate a coherent idea or piece of information, into either autonomy, competence, or relatedness (i.e., the higher-order themes). These three higher-order themes were further organized into lower-order themes, through a two-step process. First, data within higher-order themes that had similar meanings were grouped together and, second, they were assigned a label (i.e., lower order theme) that was consistent with the characteristics of each basic psychological need. For example, within the higher-order theme of *Autonomy*, we identified two lower-order themes that we labeled *Perceptions of the Decision-Making Process* and *Personalized Peer Mentorship*. Organizing the data into lower-order themes was a collaborative and iterative process involving KC, JC, and SS. Specifically, the definitions and names of lower-order themes

were debated and discussed over the course of 13 face-to-face meetings (approximately 25 hours). To finalize the deductive portion of the analysis, each lower-order theme was given a description to ensure that each higher- and lower-order themes were distinct from the rest of the themes in the analysis.

Inductive. For this analysis, KC began by focusing on the data that were not related to SDT (see Figure 1). Given that the interview data were separated into data extracts as part of the deductive analysis, KC grouped the remaining data extracts that had common features together and then assigned each group a label (i.e., lower-order theme name). KC, JC, and SS discussed the lower-order themes during face-to-face meetings and grouped the lower-order themes into higher order themes. Care was taken to ensure that themes generated from the inductive and deductive portions of the analysis were distinct.

### **Trustworthiness**

We selected criteria that we felt best matched the contexts and purposes of our research (Smith & McGannon, 2017). Specifically, we used an *audit trail* and *critical friends* to demonstrate the quality of our findings. For the audit trail, we provided a detailed account of recruitment, consent procedures, and the steps we followed for data collection and analyses. For the critical friends, JC and SS worked closely with KC throughout data analysis to act as a theoretical sounding board and to enhance her reflexive self-awareness (Sparkes & Smith, 2014). Overall, the audit trail and critical friend were implemented to help ensure that the data, interpretations, and outcomes represented participants' experiences with their peer mentorship experiences.

237 Results

Deductive and inductive themes are presented sequentially and are described using direct

quotes from participants. To provide additional context to the quotes, each participant (i.e., "mentee") was assigned a pseudonym matching their sex and their age and level of SCI was also presented.

## **Deductive Analysis: Basic Psychological Needs**

The mentees' comments were coded based on the three basic psychological needs. Given the content of the interviews, we primarily focused on the mentees' description of the social context created by mentors and their interpersonal behaviours that align with autonomy, relatedness, and competence. Further, a need thwarting theme was included given some mentees reported interpersonal behaviours that would thwart rather than support the psychological needs.

**Autonomy.** The mentees expressed that their peer mentors created a social context that was supportive of their autonomy by involving them in the *decision-making process* and *personalizing* the mentorship. For example, mentees noted that their mentors provided them with choices and did not impose decisions:

Emily (a 38-year-old women with paraplegia): He [my mentor] gave me resources so I can [search for information] and make my own decision...We talked a lot about empowerment. About feeling resourceful because he allowed me...he gave me the tools that I needed to make decisions and choices.

Based on their comments, there appeared to be two distinct ways that mentors personalized sessions to meet the mentees' needs. First, when probed to discuss their mentors' personality and the ways in which they interacted, the mentees felt their mentors allowed them to direct the content of each session. Specifically, they appreciated that they could ask questions and direct the conversation based on their problems and concerns: "First, it was always focused on me. It

wasn't him who said 'hey yesterday I did this'. If I wanted to talk about him, I would have to ask him questions. He really put me first (*Meredith*, a 48-year-old woman with tetraplegia)".

In addition to individualizing the content, the mentees indicated that flexibility in scheduling their mentorship sessions was important and appreciated. When probed to discuss the initiation and the duration of a mentoring session, some mentees expressed that they enjoyed how their sessions were not constrained by a time limit: "If I wanted to talk for 2 minutes, we talked for 2 minutes. If I wanted to talk for a half hour, we talked for a half hour (*Adam*, a 68-year-old male with paraplegia)". Others explained that if they needed to discuss a problem with their mentor, they felt that they could call or approach them to arrange a session. For example, Samantha (a 39-year-old woman with tetraplegia) noted: "her office was always open. So if I was not feeling well, all I had to do was knock on her door".

Overall, the mentees felt that they had control over their sessions from both a content and scheduling perspective, which aligns with the SDT need for autonomy. Based on their comments, the mentees also felt their mentors were approachable, which links to the need of relatedness.

**Relatedness.** The mentees felt that their mentors demonstrated *care and empathy* during their interactions. For example, a number of mentees discussed how their mentors were approachable and actively listened to their questions and problems. When asked why he decided to continue with peer mentoring, Chris (*a 65-year-old male with paraplegia*) explained how his mentor invested more time speaking with him about his (Chris') problems—and attempting to help him—than some health professionals:

*Chris*: He [mentor] gave me important information that the doctors didn't have time to give me. They [the doctors] are always busy. If you get to ask them [the doctors] a

284 question, they answer you, and then pouf! They're gone. But when I sit with [name of 285 mentor], he takes the time to answer my questions. 286 The mentees noted that interactions with their mentors were friendly and informal. *Emily* 287 explained that her mentor always went out of his way to help: 288 Interviewer: Can you elaborate on the different experiences that you had with your 289 counselor? The experiences that you appreciated or that you appreciated less. 290 *Emily*: [Name of mentor] really went above and beyond his working hours at [name of 291 SCI community organization]. It was not always necessary with me, but, he was always 292 available. Even just to accompany people outside. More than once, I saw him take 293 someone in his own car to see a movie, just to lift their spirits. As a mentor, he really had 294 a "best buddy" kind of attitude. 295 Because mentors were peers who had similar lived experiences, the mentees perceived 296 their mentors understood them and their situation especially compared to other health care 297 professions. This personal understanding facilitated a sense of connection between the mentee 298 and mentor: 299 *Interviewer*: what types of things did you appreciate about the mentoring program? What 300 were some of the things you did not like as much? 301 *Emily*: What I liked was that they [SCI peer mentors] also experienced it [a SCI]. So 302 there were no reactions like, "You'll see, everything will work out fine". Or, "Yes it's 303 difficult [right now], but time will make it..." No. They [SCI peer mentors] didn't belittle 304 us because they have also lived it. They were sensitive. I felt truly understood because 305 they [SCI peer mentors] have lived it.

Similarly, the mentees described how they believed their mentors were excellent listeners, who were always interested and engaged in conversations. For example, when asked for her thoughts on her interactions with her mentor, *Samantha* noted:

that's what's fun, she's interested. I know that she knows a lot of people. But when I'm with her, she gives the impression that it's just her and I. She doesn't think about a dozen people at the same time.

*Meredith* added: "feeling listened to is very important to me. Also, it was encouraging to see that he really wanted to let me express myself and [he wanted to] understand what I wanted before telling me what he thought".

According to the mentees, another key component of the peer mentorship process was that the mentees felt comforted knowing their experiences and problems were common among other adults with SCI. For example, when probed to discuss the obstacles her mentor had helped her overcome, *Chelsey (a 39-year-old woman with paraplegia)* explained that when she spoke to her mentor about issues related to bladder control, her mentor helped reassure her that she was not alone in her concerns:

Everything was going good, until the moment where I started to have problems controlling my bladder. The first morning that happened, I was not happy, and it was happening more and more. I spoke to him [my mentor], and he told me "Chelsey, you're not the only one". They [SCI peer mentors] are used to addressing those types of things. That reassured me.

Overall, the mentees reported that their mentors took the time to listen, went out of their way to help them, and comforted them, which helped the mentees feel connected. Interestingly, some mentees provided information that could be interpreted as supporting more than one of the

can do as a paraplegic.

psychological needs. For example, we interpreted providing reassurance (e.g., addressing bladder control) as a relatedness-supportive behaviour because the mentor provided comfort. However, in this example, providing reassurance could have been interpreted as a competence-supportive behavior as highlighted in the verbal persuasion on capability sub-theme within the broader competence theme below (see Appendix B in online material for coding definitions).

Competence. The mentees believed their mentors were influential in helping them feel more capable of successfully completing tasks. For example, when asked about the impact her mentor had, *Meredith* noted, "I know that he [the mentor] is part of the reasons that I felt the sky was the limit, and that everything was possible". When asked how their mentors affected their lives, some of the mentees described that observing their mentors being successful in social settings gave a sense that they could also be successful:

Andrew (a 58-year-old male with paraplegia): ... seeing him arrive all alone with his wheelchair. He was exiting his car and that impressed me. I didn't think that we could become independent. I wasn't even able to get out of my bed by myself. When he arrived in my room, I thought "wow". That peaked my curiosity. That impressed me. When it's the first time you see it, you have that impression.

Chelsey: I always say, "if a quad like him can have a positive life, be married, and have a child, there is nothing stopping me from being happy". He is worse off than me, and you see that he is happy. He does what he can with his circumstances. There are things you

In addition to seeing them as role models in social situations, the mentees discussed how observing their mentors successfully complete specific tasks raised their feelings of competence. For example, *Andrew* explained that watching a mentor successfully transfer him or herself was

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"... more meaningful than having a social worker tell you that one day you will be able to...".

*Chris* described similar perspectives in relation to activities like driving:

*Chris*: I saw him parking his car. That reassured me that I would one day be independent and would be able to drive myself. [I felt] that it was possible because he was completely paralyzed. But I still had some recovery to do. But now I could lift myself out of my wheelchair to get to the bed. I told myself "I will be able to drive".

Verbal communication was also identified by the mentees as being an important part in their recovery, particularly with respect to improving their competence. The mentees also explained that their mentors gave them reassurance. For example, when discussing how their mentors helped them overcome obstacles, mentees explained that they felt worried about accessibility in public places or changing urinary products until speaking to a peer: "He took a lot of stress off me because I was afraid (Jason, a 53-year-old male with tetraplegia)". They attributed this sense of reassurance to the fact that the mentor had already lived a similar experience. Chelsey spoke about how her mentor reassured her when she was nervous about undergoing a medical procedure to improve urinary tract functioning: "She said to me, 'Listen, up until now it's gone very well. I recommend it [the surgery]. But maybe if I hadn't met her, I would have 'freaked', and I would have said, 'No I don't want that...'". When discussing peer mentorship interactions, some of the mentees expressed that although their mentors helped to reassure them, they appreciated that they were also realistic about their recovery in that it will not always be an easy process. For example, Andrew noted that, "He [mentor] tried to answer without sugar coating it. [He didn't tell me] 'Everything is good, everything will be easy, because that's not true".

The mentees explained that their mentors helped support their competence as they acted as role models and reassured them when they expressed a concern. In sum, results from the deductive analysis revealed that mentees felt that their mentors exhibited behaviors that were supportive of their competence, autonomy and relatedness.

Need thwarting. In opposition to a need supportive environment, SDT posits that need thwarting occurs when need satisfaction is being obstructed or frustrated (Deci & Ryan, 2002). When a mentor was providing a social context that was not supporting the psychological needs, the mentees took notice. When discussing how it was difficult to be a mom and return to work after her accident, *Emily* described how her mentor did not support her basic psychological needs by not listening to her desire to return to work and even discouraging her to accomplish that goal:

*Emily*: I wanted to start a full time job—5 days a week. But I felt a lot of reluctance from my mentor. In the sense that they [SCI peer mentor] tried to discourage me. Or at least that's what I felt. I found that a little difficult because it was as if they didn't understand who I was. Yes, I am a mother, but my career is very important to me.

As Emily pointed out, need thwarting behaviours can create a disconnect between the mentor and mentee. She therefore sought advice from a different mentor who approached her situation from another perspective.

*Emily*: I never felt from [name of mentor] that I would never be capable. It was really, "Listen, you want to go back [to work]. Put a smile on. It will be difficult but you can do it. You always have the option to turn back if it isn't working. Yes it will be difficult but you are capable. And if you want to do it, I am sure you are able to do what it takes to make it happen".

She highlighted that this mentor who provided a need supportive social context made her feel more autonomous and competent in returning to work. Emily's example highlights that moving away from a need thwarting to a need supporting social context can result in positive outcomes for the mentees.

### **Inductive Analysis: Beyond the Basic Psychological Needs**

In the inductive analysis, mentees discussed topics related to their perspectives on their community SCI organization's structure, the role of individuals who are not mentors, and perceived outcomes associated with peer mentorship.

Role of the SCI community organization. When asked about the structure and programming offered by the SCI community organization, the mentees raised some concerns. For example, they mentioned that certain activities organized by the peers or by the community organization were not accessible for them due to issues with transportation, scheduling, or time of season (e.g., winter).

Jason: Sometimes they organize gatherings. I would really like to go but I can't because either my physical condition does not allow me or it's too far away. Sometimes they organize nice meeting at [name of restaurant], but I would get home too late at night. I'm not able to [go to gatherings] in the Winter because I almost never drive. Sometimes there are things that we would like to do in Winter but we can't.

In addition to structural aspects of the SCI community organization, when prompted, the mentees also spoke about the importance of their mentors and others who are employed by the organization. For instance, *Derek* (a 69-year-old male with tetraplegia) explained that his mentor was as important as other health professionals in his recovery: "...I had excellent experiences

with occupational therapists, physiotherapists, kinesiologists, personal nurses, doctors...I am very proud of the dozen specialists that I encountered and my mentor is one of them."

Impact of peer mentorship on family members. Although the mentees noted that their mentor-mentee relationship was important in their own recovery, participants also felt the benefits of mentoring transcended into the mentee's family environment. That is, mentees said that their mentors helped them and their families adjust to their new post-SCI realities. For example, *Meredith* noted, "[peer mentoring] must have been as reassuring for everyone around me because it [a SCI] does not happen only to me. It happens to the people around me as well. Mentoring reassures everyone". When asked about the evolution of their mentoring sessions, *Emily* explained that whenever her parents wanted to organize an activity, they were able to turn to her mentor for support and information.

Emily: My father was saying, "yes, we would like to bring Emily to see the butterflies so she can have an outing with her son. She would like to do that but we don't have transportation. We don't know how to transport her". So he [the mentor] would give advice to my dad, "You have this or this company who can give you adapted transport, or you can go see this company or that company to adapt your van". So, for my parents, [my SCI peer mentor] offered support by sharing advice and helping us find resources.

Outcomes of peer mentorship. Mentees explained that they gained emotional and psychological benefits, resources for living with an SCI, and the opportunity to participate within a community. Mentees expressed feeling emotional/psychological benefits from speaking with their mentors, even beyond what they received from health professionals such as psychologists:

*Emily*: Sometimes I think it's just a moral benefit that helps us. Sometimes, you are feeling low and just chatting with [the mentors] lifts your spirits. It's not necessarily

442 always going to be something that is tangible. Sometimes it's a phone call or a chat in the 443 corner that makes the difference. It helps the psychological side of things. 444 Mentees also explained that because of their mentoring, they gained knowledge, 445 resources, and learnt to adapt to living with an SCI. For example, when asked about how her mentor impacted different aspects of her life, Samantha explained how she approached her 446 447 mentor about managing a pressure injury. 448 Samantha: I called her [the mentor] because I had a pressure ulcer. I asked if she had any 449 information because I was looking for resources. I met my first surgeon who didn't want 450 to take on my case. So I called her [the mentor] to see if she had any knowledge on it. But 451 she didn't, so she informed herself and came back to me with some resources. 452 Finally, whether it was through learning about new activities or being involved in group 453 trips, mentees felt that interacting with mentors and the SCI community organization helped 454 them meet other people who are dealing with similar situations. Through peer mentorship, the 455 mentees explained that they were given the opportunity to become part of a community. 456 *Interviewer*: And is there something that you appreciated in particular? 457 Luc: You meet other people who have more experience than you. You talk with other 458 people who have other experiences, different types of spinal cord injuries, similar and different disabilities. That gives a lot of... how can I say this... gives a lot of ideas on 459 460 how you can adapt [to your injury] or change your lifestyle. 461 Mentees discussed many factors associated with their peer mentorship including, the 462 mentees' perspectives on their community SCI community organization's structure, the role of 463 individuals who are not mentors, and perceived outcomes associated with their interactions.

While each mentee benefited differently from their peer mentorship relationships, it is clear that

the mentees had a positive experience. *Meredith* summarized her peer mentorship experience in the following way:

Interviewer: Can you elaborate on the way your mentors affected your life?

Meredith: 25 years later, it's still stuck in my head and in my heart: [my life] would not have been the same without him [peer mentor] and [SCI community organization].

**Discussion** 

The purpose of this study was to qualitatively explore SCI peer mentees' perceptions of their peer mentoring experiences through a SDT lens. The present findings complement an emerging body of research that has suggested theory could help to gain an understanding SCI peer mentorship (e.g., Beauchamp et al., 2016; Gassaway et al., 2017; Ljunberg, Kroll, Libin & Gordon, 2011). To our knowledge, this qualitative study was the first to explore mentees' experiences with SCI peer mentorship using SDT. Overall, results from this study indicated that SDT was a useful framework to organize mentees' experiences with and perceptions of SCI peer mentorship. Indeed, the mentees detailed the ways in which their mentors fostered a need supportive social context, through SDT's three basic psychological needs.

## **Basic Psychological Needs**

The mentees said they appreciated their mentors' approach by offering choice and being flexible and allowing them to have a sense of control of their sessions. There is reason to believe that flexibility is therefore an important element for quality SCI peer mentorship. In fact, mentees in Veith and colleagues' (2006) study reported that having limited opportunities and choice of when to interact with their mentors reduced the quality of their peer mentoring relationship. Furthermore, mentees in the present study appreciated when their mentors "put them first" by allowing them to determine the focus of each session and provided them with

choices in the decision-making process. We interpreted these findings as being consistent with the mentors providing an autonomy-supportive social context (Ryan & Deci, 2017).

Mentees in the current study explained that interactions with their mentors were friendly and informal, which aligns with previous SCI peer mentoring research (Balcazar, Kelly, Keys, & Balfanz-Vertiz, 2011; Haas et al., 2013). For example, Balcazar et al. (2011) conducted a mixed-method peer mentoring intervention with 28 individuals with SCI. Among their qualitative findings, Balcazar and colleagues' reported that the mentees' likened their relationship with mentors to that of a friendship, and noted that their mentors cared about them personally. Similarly, Haas et al. (2013) found that SCI mentees cited "friendship" as a benefit of their relationship with a mentor. Although it was not explicitly articulated in either study (Balcazar et al., 2011; Haas et al., 2013), the feelings of friendship described by their participants, as well as the mentees in the present study, appear to be conceptually similar to the need for relatedness from SDT. Thus, it appears that feeling related—perhaps in the form of a friendship—with a mentor is an important aspect of a positive peer mentorship experience.

However, there is a fine line between mentorship and friendship, as discussed in peer mentorship research in other contexts (e.g., McLeish & Redshaw, 2015). For example, when providing peer mentorship for pregnant women and early mothers, mentors in McLeish and Redshaw's (2015) study described mentorship as having clear, structured boundaries. On the other hand, these mentors defined friendship as having less structure and boundaries, because "friends" would share personal contact information whereas "mentors" would not. As a result, SCI organizations may consider starting (or continuing) to discuss the expectations and boundaries of their mentorship programs, so that both mentors and mentees have a clear understanding of their relationship from the outset.

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Another finding that was linked to the concept of relatedness is empathy. More precisely, mentees in the present study felt that their mentors' ability to be empathetic contributed to a positive peer mentorship experience. Participants in Veith and colleagues' (2006) study also believed that the empathetic understanding (i.e., in the form of shared SCI experience) was central to their bond with their mentor and led to increased feelings of trust in their mentors' advice. Beauchamp et al. (2016) found that peer mentees felt that understanding and empathy helped to build relatedness in the mentor-mentee relationship. However, as Standal (2011) noted, researchers should be cautious about concluding that empathetic understanding automatically emerges as a result of shared experience. That is, being an individual with a SCI does not automatically mean that one can accurately provide empathy for someone else's disabilityrelated issues. Indeed, need thwarting was apparent in the results of the present study. Some of the mentees expressed that they did not feel understood during parts of their mentorship, which would be akin to their mentors' not providing accurate empathy. To have an empathetic understanding is to make an effort to understand the person's situation from his/her perspective (Miller & Rollnick, 2013). To maximize the effectiveness of peer mentorship, interventions and programming should ensure that mentors have a clear understanding of accurate empathy. Providing such an understanding might help facilitate the satisfaction of the basic psychological need of relatedness and create a need-supportive social context as per SDT. Mentees in the present study discussed how observing their mentors model specific tasks

Mentees in the present study discussed how observing their mentors model specific tasks (e.g., complete transfers, drive automobiles) and receiving reassurance for completing various life tasks (e.g., accessibility in public places, changing urinary products) was important to them and appeared to contribute towards a sense of competence. Findings from a recent quantitative study from our group (Sweet et al., 2018) are aligned with the present results, as peer mentorship

was shown to predict competence among adults with SCI. Other quantitative studies have demonstrated the effectiveness of peer mentorship on self-efficacy, a concept similar to competence (Ljunberg et al., 2011; Gassaway et al., 2017). A qualitative study from Beauchamp et al. (2016) found that mentees reported that their SCI mentors acted as role models (e.g., "seeing somebody in the same shoes doing it, was what made it for me" (p. 1888) and reassured them to try different activities. Findings from the mentees' in Beauchamp et al.'s article appear to align with our findings relating to fostering the feelings of competence among mentees. To gain further appreciation of the competence (and other need) support behaviours of SCI peer mentors, future studies may consider direct observations of peer mentorship interactions. Such observations could further describe the strategies utilized by SCI peer mentors to foster competence (as well as other needs).

In sum, we found that the majority of the mentees' perceptions of peer mentorship could be mapped onto SDT's three psychological needs, meaning the mentors are applying a mentee-centered approach. A growing body of evidence has highlighted the benefits associated with mentee-centered approaches to SCI peer mentorship (Gassaway, 2017; Houlihan, 2017; Gainforth, Latimer-Cheung, Davis, Casemore, & Martin Ginis, 2015). For instance, mentors in Houlihan and colleagues' (2017) study were trained to deliver mentee-centered goal setting and health coaching to optimize self-management practices of adults with SCI. Individuals who received mentee-centered peer mentorship reported greater levels of self-management than individuals who received standard care, which suggests that personalizing and involving mentees in the decision-making process results in positive outcomes. Peer mentorship programs may consider offering opportunities for their mentors to receive additional training to develop skills that will allow them to provide and foster a mentee-first approach, which would help to

maximize the impact of their programming. In line with SDT, mentors could be taught how to encourage independent decision making by providing choices and options to enhance autonomy, model specific tasks such as transfers to promote competence, and accurately empathize to foster relatedness. SDT training for peer volunteers in the physical activity context has been shown to better promote maintenance of desired outcomes (Buman et al. 2011).

Additionally, some mentees' comments could be linked with more than one of SDT's psychological needs. For example, some mentees highlighted that the advice shared by their mentor helped them feel understood and capable. The mentor's behaviour of giving the advice aligned with providing a social context that supported both the psychological needs of relatedness and competence. This finding was not surprising because Deci et al. (2001) noted that the satisfaction of one domain of SDT increases the likelihood for positive associations with the other basic psychological needs. Although our study was qualitative in nature, findings from the present study appear to support SDT-based research or conceptualizations that hint at the interrelatedness of the basic psychological needs (e.g., Milyavskaya et al., 2009; Van den Broeck, Vansteenkiste, Hans De Witte, & Lens, 2008; Fortier, Sweet, O'Sullivan, & Williams, 2007). Specific to the SCI peer mentorship context, future SDT-based studies could specifically examine the interrelationship of the basic psychological needs and identify overlapping techniques or relational styles that foster these needs.

### **Beyond the Basic Psychological Needs**

The mentees also highlighted dimensions of peer mentorship that were beyond SDT.

Specifically, they discussed outcomes or processes of peer mentorship that appeared to enhance their participation in daily or social activities. The concept of "participation", defined as the extent to which one engages in daily and social activities, has been well documented in the

context of SCI (e.g., Noreau, Fougeyrollas, Post & Asano 2005). In the present study, the mentees discussed elements of their peer mentorship experience that enhanced the quality of their daily activities (Martin Ginis, Evans, Mortenson & Noreau, 2017) such as receiving emotional support (i.e., for their psychological health) and informational support (i.e., for activities of daily living like using a catheter). Mentees also reported that their mentors helped them connect and network with other adults with SCI and their families to adjust to the realities of SCI. Taken together, these findings reinforce the importance of social participation in the SCI context and hint at the facilitative role of mentors in helping mentees engage in their lives.

Mentees in this study reported that peer mentorship was also beneficial for their family members. Haas and colleagues (2013) found that family members of mentees reported benefits of mentorship, which they felt included being comforted by "knowing somebody was there", (p.297) if they needed guidance or information. The impact on peer mentorship on family members has received little empirical attention to date. It would be interesting for future studies to investigate how peer mentorship could be optimized to include family members, so they could learn and adapt alongside their family member living with SCI.

### **Limitations and Future Directions**

Although mentees interacted with their mentor in the last five years, some mentees interacted with their first peer mentor approximately 30 years ago, which could have contributed to recall bias regarding the initial phases of their life with SCI. Mentees may have focused more on their positive peer mentorship experiences given their continued support and use of peer mentorship. As such, the results may not accurately reflect mentee experiences related to need thwarting behaviours or unhelpful techniques. Future research should consider discussing with individuals who are not receiving peer mentorship or have decided not to continue with the

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mentorship to understand the reasons behind not engaging in SCI peer mentorship. Furthermore, mentees included in this study received peer mentorship as part of one SCI community organization, thus our findings cannot be generalized to every model of mentorship. Additionally, each mentor has their own unique mentoring approach that is based on their lived SCI experience as well as their accumulated mentorship experience. Mentees were also interviewed at one time-point. Future studies may consider implementing multiple interviews to allow participants the opportunity for further reflection and the sharing of additional information. As previously suggested by Veith and colleagues (2006), it would be valuable to collect information from various sources (e.g., family members, HCPs, community organization members) to gain a more complete view of the mentoring experience and expand on the work by Hass et al. (2013). In addition to being an SDT-grounded study, the main coder of the results (KC) and one critical friend (SS) are SDT researchers, which inherently increases the likelihood of finding SDT congruent themes. However, another critical friend (JC) has not previously conducted SDT-grounded research and provided an alternate perspective to challenge KC and SS during the deductive and inductive analyses.

618 Conclusions

Overall, mentees in the present study expressed their appreciation for a mentor who provided a social context that supported their basic psychological needs. The mentees also highlighted that peer mentorship had benefits for both daily and social activities. In sum, these findings suggest that psychological theories such as SDT are useful in understanding the experiences of SCI peer mentees. Further, findings from this study could be used to inform the development of a mentee-centered training program that is focused on enhancing the social participation of individuals with SCI and their family members.

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