Research Paper

# **Exploring the Role of Community Recreation in Stroke Recovery Using Participatory Action Research and Photovoice**

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**Abstract**: Involvement in therapeutic recreation (TR) after experiencing a stroke is an important component of the rehabilitation process. The purpose of this study was to explore the role of community-based recreation in stroke recovery for 14 stroke survivors who had engaged in TR within a community-based stroke rehabilitation program in Canada. These individuals were co-researchers in a participatory action research project using a Photovoice methodology. Based on photographs and individual interviews that were analyzed using the constant comparative method, this study demonstrated that recreation facilitated experiences of hope, collective social support, and community engagement for these stroke survivors as they re-integrated into their communities.

**Keywords:** Photovoice, participatory action research, stroke, community-based recreation

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In 2009, a Local Health Integration Network (LHIN) in southern Ontario, formed three Community-Stroke Rehabilitation Teams (CSRT) to provide specialized, coordinated support to stroke survivors in their communities. These services were provided by multidisciplinary teams and included recreation therapists.1 The current research was undertaken to critically explore the experience of community-based recreation for stroke survivors, specifically those who had participated in TR services provided by the CSRT in the Grey-Bruce region in Ontario. This CSRT provides support to stroke survivors in the community through a multidisciplinary health care team. The role of the recreation therapist in the CSRT is to work with stroke survivors to provide individualized leisure assessment, collaboratively develop an individual recreation plan, and assist stroke survivors to engage in recreation as a means of addressing individualized goals and objectives (e.g., increasing physical mobility, enhancing self-esteem, decreasing social isolation). Some of these activities take place individually in the homes of the stroke survivors, but additionally, the recreation therapist organizes group outings in the community to address these individualized goals and objectives.

The practice of the recreation therapist on the CSRT takes a holistic, strengths-based approach to health, which is well documented in the TR literature (Anderson & Heyne, 2012; Austin, 2013; Carter & Van Andel, 2011; Coyle, 1998; Lee, Datillo, Kleiber, & Caldwell, 1996). Emphasizing self-determination through leisure, community-based rec-

reation is important in facilitating empowerment, community integration, and engagement in valued social roles (Hutchison & McGill, 1992; Walton, Schlein, Brake, Trovato, & Oakes, 2012). Participatory action research (PAR) is consistent with this holistic approach to TR. PAR is well suited to the study of TR because of its emphasis on empowering marginalized groups. In PAR, participants are encouraged to engage as coresearchers and to be active in all phases of the research study (Kemmis & McTaggart, 2005). Similarly, as a creative form of PAR, Photovoice uses photographs, taken by the participants, to facilitate the telling of the stories that matter most to them. Wang and Burris (1997) conceived of Photovoice as a method of seeing the world from the viewpoint of marginalized, underrepresented groups in order to influence changes in attitudes, perceptions, and social policies. Given the centrality of the idea that some kind of improvement or change is desirable, PAR can be particularly useful in evaluating the process of TR. This study, therefore, used Photovoice in PAR to critically examine the role of community-based recreation for stroke survivors who participated in a community-stroke rehabilitation team in Ontario, Canada.

#### Literature

Each year in Canada, stroke affects 1.2% of the population (approximately 50, 000 adults) (Heart and Stroke Foundation of Canada, [HSFC], 2012). Similar rates exist in the United States, with 2.6% of the population (approximately 6 million adults) reporting a history of stroke (Neyer et al., 2007). Many of these indi-

<sup>&</sup>lt;sup>1</sup>The terms *stroke survivor* and *recreation therapist* are used here because that is the language that the participants use to describe themselves.

viduals live with challenges that impact their physical and cognitive function. Changes in mobility, communication, and memory can have a substantial impact on an individual's sense of self (Ellis-Hill, Payne, & Ward, 2000). Decreased autonomy and self-esteem have been found to negatively impact physical, psychological and spiritual health (Kleiber, Walker, & Mannell, 2011).

Decrease in leisure activity involvement is a common outcome after stroke (Drummond, 1990) and has been associated with decreased life satisfaction (Ragheb & Griffith, 1982). There is a growing need to understand psychosocial impacts, such as depression, that can persist for substantial periods of time poststroke (Schepers, Visser-Meily, Ketelaar, & Lindeman, 2005).

Williams and colleagues (2007) documented significant positive changes in motor skills, cognitive function, and overall functional independence associated with the provision of TR services for stroke survivors. Although much of the research has focused on functional rehabilitation after stroke, recent work has expanded to explore the role of recreation in enhancing psychosocial wellbeing among stroke survivors. Leisure can be an important resource in "coping with, adjusting to and, at times, growing as a result of the losses" (Kleiber, Reel, & Hutchinson, 2008, p. 322). Montgomery, Booth, and Hutchinson (2009), in a case study of a 40-year-old man with a cerebrovascular accident, focused on re-orienting the therapeutic process to focus on identity, rather than functional outcomes. In helping the man to find alternate ways to identify and express himself, the therapeutic process was much more successful than previous efforts had been that focused primarily on functional outcomes. Leisure, therefore, can provide a means to maintaining a sense of self and also to explore new ways of being (Kleiber et al., 2008).

Although the need for intensive rehabilitation during the early phase of stroke recovery is well-documented (Cowdell & Garrett, 2003), less attention has been paid to the role of community-recreation in rehabilitation once individuals return to their homes in their communities. Meaningful leisure involvement can contribute positively to the experience of community integration. Participating in leisure with other stroke survivors can help to build a sense of belonging and provide opportunities for sharing knowledge between stroke survivors (Hebblethwaite, 2014). Theories of group counselling emphasize the value that participants gain from engaging in group counselling and learning about other participants' experiences (Yalom & Leszcz, 2005). The universality of experience, whereby individuals realize that they are not alone in their struggles, can be a powerful force and support the use of group interventions (Gladding, 2012). Furthermore, Lee, Mc-Cormick, and Austin (2001) suggest that the meaningful relationships necessary for integration can be facilitated through leisure. The leisure pursuit can create a commonality of experience among participants, facilitating social relationships among individuals with mutual interests (Hebblethwaite & Pedlar, 2005). This social network development is an important step in the process of community Community-recreation reintegration. programs tailored to the individual needs of persons with disabilities enhance selfdetermination by providing more choice and control for these individuals (Lord & Hutchison, 2003).

Building upon individual strengths and abilities, rather than focusing on deficits and disabilities can complement this focus on self-determination and contribute to the realization of a person's full potential (Carruthers & Hood, 2007). Theories and models that guide TR practice have begun to attend to strengths and capacities in both individuals and their environments. Anderson and Heyne (2012) incorporate this focus into their definition of TR and suggest that TR is:

the purposeful and careful facilitation of quality leisure experiences and the development of personal and environmental strengths, which lead to greater well-being for people who, due to illness, disability, or other life circumstances, need individualized assistance to achieve their goals and dreams (p. 61).

This definition reflects a shift in focus away from a deficits approach to a strengths approach in health and human services and in TR (Anderson & Heyne, 2012). This strengths-based approach, discussed in detail below, guided the current study in the study design, analysis and discussion of the findings.

## Theoretical Foundation

Much clinical TR practice, including that of the second author, remains strongly grounded in Stumbo and Peterson's (2009) Leisure Ability Model. The outcome of TR service delivery is a satisfying leisure lifestyle, hinging on the "independent functioning of the client in leisure experiences and activities of his or her choice" (p. 13). This is said to be achieved along a continuum of service beginning with functional intervention, progressing to leisure education, and culminating in recreation participation. As the client progresses along this continuum, s/he becomes more independent and the involvement of the recreation therapist decreases. This model, while progressing to self-determination and independence, is based strongly on the identification of client deficits, rather than client strengths. It conceives of the therapist as having expert skills in determining appropriate interventions based on the client's needs. For example, leisure education involves teaching to the client, rather than learning with and "leisure resource programs are provided to individuals [emphasis added]" (Stumbo & Peterson, 2009, p. 16). While greater participation of the client is expected as s/he progresses through the continuum, the therapist is still perceived to be imparting his/her knowledge to the client.

Critical deconstruction of these types of deficit-based models in TR has occurred alongside an important shift in the World Health Organization's (WHO) focus on impairment, disability, and handicaps to functioning, disability, and health (WHO, 2001). This has contributed to the development of a strengths-based approach to TR. The strengths-based approach is grounded in possibilities, rather than problems (Anderson & Heyne, 2012). Rather than emphasizing interventions aimed at ameliorating deficits, the focus is on strengths, resources, capabilities, and adaptive processes. Both the individual and the environment are taken into consideration, with emphasis on ecological models that encourage attention to context (Anderson & Heyne, 2012; Carruthers & Hood, 2007; WHO, 2001). Drawing on a variety of theories, including positive psychology, leisure coping, self-determination, resiliency, and social capital, the strengths-based approach emphasizes authentic learning and the commitment to advocacy and sustainability (Anderson & Heyne, 2012). Strengths-based approaches are vital since disempowerment, depression, and decreased self-esteem can result from decreased self-control experienced by stroke survivors when they cannot ac-

tively participate in their care (Hochstenback, Prigatano, & Mulder, 2005). Having positive and engaging experiences, utilizing strengths, feeling positive emotions, finding meaning and purpose in life, and contributing to positive institutions can lead to a life that is satisfying, health-producing, and long (Peterson, 2006; Carruthers & Hood, 2007). This strengthsbased approach guided the practice of the recreation therapist in the current study as well as the study design, methodology, and analysis. The strengths-based approach encourages a critical reflection and deconstruction of traditional ways of thinking and doing TR, both in research and in practice.

## Methodology

Building on this strengths-based approach and seeking to integrate research with practice, participatory action research (PAR) and Photovoice were employed in order to enhance TR practice and to empower marginalized groups. PAR has been helpful in understanding recreation for people at risk of developing diabetes (Wharf-Higgins & Rickert, 2005), community development (Frisby, Reid, & Ponic, 2007) and physical activity (Frisby, Crawford, & Dorer, 1997). Photovoice has been used in a variety of contexts, including Aboriginal women with breast cancer (Poudrier & Mac-Lean, 2009), individuals who are homeless (Wang, Cash & Powers, 2000), and mothers with learning difficulties (Booth & Booth, 2003). In light of the benefits of PAR and the small amount of leisure research that utilizes PAR, Hutchison (2008) advocated for an expansion of PAR in leisure research.

This community-based PAR project was conducted in collaboration with the recreation therapist, who is part of the CSRT, and the stroke survivors who have been involved with the CSRT. All procedures were carried out in accordance with the Human Research Ethics Committee at the first author's university.<sup>2</sup>

Both authors co-facilitated the participatory action research process. Fourteen stroke survivors participated as co-researchers<sup>3</sup> in the process (see Table 1). They all lived in a rural area in southern Ontario, Canada. Six women and eight men participated. All were white and they ranged in age from 52 years to 76 years with an average age of 66 years. Most had completed high school and 50% had additionally completed college or university. Most had experienced their stroke less than two years prior to the study, but the average length post stroke was 3.8 years.

**Table 1**Participant Characteristics

| Demographics                   | Participants ( <i>N</i> =14)  |
|--------------------------------|---|
| Sex (female: male)             | 6:8   |
| Mean age (age range)           | 66 (52–76)  |
| Education                      | 2 college or university<br>10 high school<br>2 didn't complete<br>high school |
| Marital status                 | 9 married or common-law<br>5 widowed or divorced                              |
| Mean time since stroke (range) | 3.8 years (6 months—7 years)  |

<sup>&</sup>lt;sup>2</sup>All participants consented to the disclosure of their identity through individual interviews and photographs used in the study.

<sup>&</sup>lt;sup>3</sup>Based on the principles of participatory action research, for the purpose of this study, the stroke survivors are referred to as co-researchers, rather than participants.

All stroke survivors (N=20) who had participated in TR with the CSRT in the 12 months since its inception were invited by the recreation therapist to participate in the research. Fourteen stroke survivors agreed to participate and met as a group to discuss the opportunity for a research study. The group engaged in open brainstorming with both authors in order to determine the goal of the research and to decide on the methodology that would be used. The co-researchers set two goals for the research project, which were to (1) examine the experience of communitybased recreation for stroke survivors who had participated in TR services provided by the CSRT, and (2) develop a means of educating other stroke survivors about the role of recreation in the recovery process. In order to achieve these goals, the co-researchers stated that they wanted the outcome of the research to be visual, rather than written, in order to better reach other stroke survivors. After discussing several possibilities, they decided to produce a calendar that included pictures and quotes from the group so that the group could (1) distribute calendars to be displayed in the waiting rooms of each family physician's office in the Grey-Bruce region, and (2) distribute calendars to individuals in rehabilitation units in the regional hospital who had recently experienced a stroke. This was their way of validating their own culture of knowledge by rejecting the culture of silence they experienced as stroke survivors and finding ways to reclaim their own story (Reason, 1994).

Using a Photovoice methodology (Wang & Burris, 1997), the stroke survivors took pictures of what their recreation had been like since they experienced their stroke. Community-based PAR using Photovoice has been found to be a useful methodology to foster collaboration

and help marginalized groups strengthen their voice around issues of community inclusion (Walton et al., 2012). The photographs taken by the stroke survivors were then gathered and used to facilitate discussion among the co-researchers about the role that recreation played in their recovery. Both authors co-facilitated individual interviews with each stroke survivor. These interviews were audiorecorded, with participant consent, and then transcribed verbatim. In order to understand the experience of TR in their recovery, the stroke survivors were asked to (1) describe their experience in the picture they had chosen, (2) explain the meaning that the experience held for them in their recovery, and (3) discuss how their recovery was impacted by engaging in community-based recreation.

Detailed field notes and a reflective journal were maintained throughout this process, acting as data that further informed the emergent understanding of the experiences of all of the co-researchers. The stroke survivors chose not to engage in the analysis of each individual interview, but instead preferred that both authors conduct the analysis of the interviews to determine the main themes that emerged from the data. Qualitative data analysis of the interpretive interviews employed the constant comparative method (Glaser & Strauss, 1967) as a means to process the data. Each interview was coded line by line by the first author. The second author then reviewed these codes to enhance trustworthiness. Together, both authors grouped the open codes into 12 themes that represented the experiences of the stroke survivors.

Once all of the individual interviews had been analyzed, the authors met with all 14 stroke survivors together and discussed the 12 major themes that emerged from the interviews. Each

theme was posted on a piece of flipchart paper around the room and explained verbally by the first author. To enhance trustworthiness of the analysis, the stroke survivors gave input into the 12 themes, agreeing that they represented the overall experience of the group. Together, the group then selected the 12 photographs that best represented the 12 themes from the interviews. The first author then chose a verbatim quote from the interview transcripts that best represented each theme. These quotes were added to the photographs and were used to create a calendar that included the 12 themes that illustrated the role of recreation in stroke recovery. The stroke survivors had one final opportunity to critique the analysis when the final themes, pictures and quotes were shared with them using a mock-up of the final calendar.

The authors did not set out to deductively find 12 themes to match the calendar months but the 12 themes that emerged inductively worked well for the formation of the calendar. Upon further reflection and analysis through the selective coding process (Glaser & Strauss,

1967), however, these 12 themes were further condensed by the first author based on similarities among the codes. The final analysis is best represented by three key categories that represent the impact of recreation in the recovery from stroke, including collective support, regaining hope, and enhancing community engagement. These three categories include all 12 themes identified from the original analysis.

# **Findings**

Collective support, regaining hope, and enhancing community engagement represent the commonalities among the 12 sub-themes that emerged and were used to create the calendar (see Figure 1). The theme *collective support* includes the sub-themes, (1) needing encouragement, (2) providing support, (3) sense of belonging, (4) adapting, and (5) persevering. The theme *regaining hope* reflects the sub-themes, (1) finding hope, (2) sense of accomplishment, (3) gaining confidence, and (4) purposeful and meaningful engagement. The final theme *enhancing community engagement* encompasses the

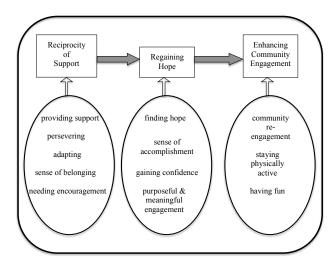


Figure 1. The Role of Recreation in Stroke Rehabilitation

sub-themes, (1) community re-engagement, (2) staying physically active, (3) having fun.

## **Collective Support**

Participating in recreation with the support of the recreation therapist and other stroke survivors provided the encouragement4 that the stroke survivors needed to begin to re-engage with their previous leisure interests or to begin to explore new interests. The knowledge of how to adapt to their disabilities and foster their abilities was a key aspect of their experience with TR. This knowledge came from the recreation therapist but additionally, and most importantly, from other stroke survivors. As one man stated:

The group provided me with some social interaction and some knowledge of how strokes actually affect people. Until you start talking to actual stroke survivors, you're not sure how it really affects people. You're encouraged that things are going to get better.

By participating in recreation together with other stroke survivors, they were able to learn and be supported by others, but also gained a sense of self-worth by being able to share their own knowledge and experiences and by becoming able to provide support to others in the process. Another man said, "It was always nice to go with the group. We were sort of clumsy, but everyone just helped everybody else—the heck with it." Being able to develop relationships with other stroke survivors gave them a sense of belonging and helped them to feel that they weren't alone in

their struggle for recovery. This support was particularly salient around the issue of driving and many of the stroke survivors helped each other to navigate the challenging road of getting their drivers licenses reinstated. In these relationships, instead of feeling different and disabled, they became more comfortable knowing that other people were experiencing the same challenges as one man illustrated, saying, "I realized that somebody else was like me. I like that we're all the same kind of people. It feels like I belong."

Throughout their involvement in TR in the CSRT and with other stroke survivors, the participants were able to express their struggles but were able to take their difficult experiences and learn from them with the support of the group. In their interactions with each other, as well as during their interviews with the two coauthors, they often shared their advice about *adapting* their activities, as one woman reflected about her experience of sewing, stating:

I found that it was very difficult at first, but I always found a way around it. Do it another way and you will accomplish it. You can achieve the same result if you just take a detour, go another way.

The participants, with guidance from the recreation therapist and from each other, were able to find ways to adapt their activities in order to continue their recreation participation. They also spoke about the psychological adaptation to their stroke, emphasizing equally the importance of a positive attitude. One man continued to restore antique trucks, despite right hemiparesis (see Figure 2). His

 $<sup>^4</sup>$ The 12 axial codes (sub-themes) that formed the basis for the calendar are italicized for ease of representation in this section.

experience represented the importance of never giving up, exemplified by the following statement, "The whole recovery thing is your attitude. You get out of it what you put in. Work through the pain. Never give up." They learned to *persevere* by watching what other stroke survivors were able to accomplish in their recovery. By engaging in recreation together in their community, the stroke survivors received support and gave support to others, contributing to an experience of collective support that helped them to regain hope and re-engage with their communities.

## **Regaining Hope**

The collective support experienced by the stroke survivors contributed to their experience of regaining hope in their lives. They were able to *find hope* in learning about ways that other stroke survivors had faced the challenges associated with their stroke. In some instances, stroke survivors experienced significant functional improvement and, in others, had found ways to adapt to their impairments. One woman reflected on this, explaining:

Well, you just see people that are at different levels of recovery—someone whose hand is like this, another that's different. I asked if it was like it used to be and she said 'Yes'. So, I have hope. That makes all the difference.

The sense of accomplishment that the stroke survivors experienced by participating in recreation influenced their sense of hope. One man spoke about his experience of going skating, saying, "I just wanted to know that I could do it. It made me feel important, that I could still do something." This sense of accomplishment gave hope that there was a chance to live a meaningful and fulfilling life. Another man, who had his stroke nearly two years prior to becoming involved with the CSRT, reflected on the role that his recreation experiences played in regaining hope in his recovery, stating, "It just meant that you could do those things that you thought 'This is off the list." Being motivated by the progress of others to continue to improve their skills increased



Figure 2. Photograph used for calendar depicting perseverance

their confidence in themselves dramatically, evidenced by one woman who said:

I speak better now. I'm not afraid to talk out in public anymore. I'll go out into a store. I'm not afraid to exert myself. If I'm upset with them [store clerks], they're gonna get it. I wouldn't do that before.

Recreation played an important role in regaining hope but the activities needed to be purposeful and meaningful in order to sustain motivation for participation. As one man stated, "If you don't have a purpose for it, it's not worth doing." Another woman reflected, "If it's more interesting, you're going to try. If it's boring, you don't try so much". By engaging in recreation experiences that addressed their individualized goals for rehabilitation, the stroke survivors experienced greater enjoyment from their activities and were more likely to participate when these activities had purpose and meaning in their lives. In pursuing these recreation experiences, they regained hope in their lives which, in turn, facilitated engagement in their communities.

## **Enhancing Community Engagement**

When the recreation therapist and the stroke survivors collaborated, their experience of collective support led to regaining hope which, in turn, facilitated community re-engagement. By engaging together in recreation opportunities in their community (e.g., swimming, golfing, camping, geocaching, arts, etc.), the fear the stroke survivors had about interacting with their community gradually dissipated. They learned that, despite their impairments, they were still able to be active members of their community. One man reflected upon the role of rec-

reation in this process, stating, "It makes you get out there in the community and you find that there are things that you can contribute, even with one hand." This sense of contribution to the community encompassed interactions with other stroke survivors as well as the community-at-large. This involvement contributed to a sense of self-worth, as evidenced by one man's statement, "It was important because I could participate and do things and help some of these people. I'm sure they learn a certain amount from us, too." Being able to give back to the community had a positive impact on the stroke survivors, giving them a sense of purpose. Some of the group formalized this process and developed an educational support group for stroke survivors in their region.

This community engagement had additional benefits for the stroke survivors. It enabled them to stay physically active by engaging in activities such as swimming and golf in their communities. The most important outcome, according to the participants, however, was simply to enjoy life. Many stroke survivors commented on the importance of just having fun, as evidenced by the following statement, "It has just added to enjoyment to the whole healing process. It's just fun." One man summarized his overall experience, saying, "So you get confidence, you get exercise, you get the social interaction, you get out in the community, you learn different things. It's just fun". Recreation, therefore, was an important means to an end for the stroke survivors. It provided a fun and supportive context that facilitated meaningful growth and learning among all of the stroke survivors, enabling them to actively engage in their communities.

## Discussion

The stroke survivors in this study experienced a variety of benefits from community-based recreation that empowered them in their recovery. The individualized, strengths-based approach that the recreation therapist utilized was a key component in this recovery. The recreation therapist took the time to fully understand the strengths of the stroke survivors and learned about their hopes, dreams, and desires both through her individualized assessment interviews and through recreation participation with a group of stroke survivors. Anderson and Heyne (2012) advocate for a strengthsbased approach to TR, emphasizing the role of the individual and the environment in influencing strengths and capacities. In this case, the stroke survivors were able to learn about their own strengths and abilities by watching and learning from other stroke survivors. They were able to build strengths in a safe community of other stroke survivors, away from the stigma associated with disability that they feared they would face in their communities. They received and gave support, learning from each other while gradually making the transition back to community-based recreation.

The opportunities for collective support from other stroke survivors led to a renewed sense of hope among the participants which, in turn, facilitated a strong sense of community engagement. While much work around deinstitutionalization has opposed segregation of individuals with disabilities and advocated for inclusive recreation practices (Dattilo, 2012; Devine & Kitowski, 1999; Schleien, Germ, & McAvoy, 1996), we have neglected to understand the advantages of these individuals sharing common experiences with other people in similar life situations. TR can play an important role

in providing a fun, non-threatening context for stroke survivors to come together, share experiences, and learn from one another. By developing relationships in this context, stroke survivors can build their knowledge and their confidence in order to better integrate into their communities after their stroke. Community-recreation professionals should be mindful of this important relationship among stroke survivors. Many community recreation programs focus on integration and inclusion (Schleien, Germ, & McAvoy, 1996) and may miss opportunities for stroke survivors to recreate together and build the supportive relationships that were so beneficial to the participants in this study.

By engaging in purposeful activities that addressed their individual goals and emphasized their strengths, the stroke survivors experienced greater enjoyment in the rehabilitation process. Meaningful participation, even if some adaptations were needed, encouraged greater participation in their communities. This supports previous research that has shown that having positive and engaging experiences, utilizing strengths, feeling positive emotions, finding meaning and purpose in life, and contributing to positive institutions are essential to both physical and psychosocial well-being (Peterson, 2006; Carruthers & Hood, 2007). Being together with other stroke survivors allowed them to understand the similarities, but also the diversity of their experiences, particularly related to functional abilities. This contributed to a sense of hope and motivated them to persevere in their rehabilitation and, most importantly, in life after their formal rehabilitation was complete. Many of the stroke survivors spoke about the importance of having the right attitude, e.g., never giving up. It is important to note, however, that their experiences were influenced by a multitude of factors, in addition to

their attitude. They needed encouragement from the recreation therapist and from each other to re-engage in their communities. The support and sense of belonging that they received from each other was invaluable. Maintaining their physical activity involvement was another important factor. Participating in the TR process in the community helped to facilitate this support. Hutchinson and Kleiber (2000) cautioned against emphasizing the individualistic attitudes that are often associated with recovery in persons with disabilities. It can be harmful to focus solely on intrinsic qualities (e.g., a strong work ethic, a positive attitude, a strong sense of determination) since they can minimize the support needed to manage the challenges associated with some disabilities. The findings in the current study suggest that having a positive attitude is an important aspect in stroke community-recreation recovery, but practitioners should be cautious not to focus solely on a person's attitude and neglect the social and environmental supports that can benefit individuals as they recover from stroke. Strengths-based approaches address this challenge by incorporating both internal strengths (e.g., skills, knowledge, aspirations, character strengths, wisdom, and courage) and external strengths and resources (e.g., support from family and friends; community and environmental resources; and inclusive communities) (Anderson & Heyne, 2012). Furthermore, Carruthers and Hood (2007) suggest that well-being results from the interplay between leisure experiences, resources (intrapersonal, interpersonal, and external assets), and a person's positive affect. Future research grounded in a strengths-based approach could facilitate a more in-depth understanding of the experiences of stroke survivors. It is important to move beyond

understanding barriers and constraints to focusing on how strengths and abilities can be implicated in recovery from stroke.

Community-based rehabilitation was well positioned to address both internal and external strengths and resources. It occurred at a time that seemed optimal for TR involvement and bridged the gap between hospital-based rehabilitation and community engagement. This is reflective of the shift outlined in the Leisurability Model as the client moves from functional intervention, engages in leisure education, and eventually achieves independent recreation participation (Stumbo & Peterson, 2009). The recreation therapist first engaged in functional intervention by working with the stroke survivors to determine their leisure interests and adapt these interests based not only on their challenges, but emphasizing their strengths and abilities. The importance of learning and growth was a key component of the TR process and leisure education was particularly relevant in the community-recreation context. For the stroke survivors, this was a time that they were interested in learning about how to adapt their leisure activities and how to find purpose and meaning in life after their strokes. This study expands upon the more traditional thinking in the Leisurability Model and about leisure education as coming from the recreation therapist to the client. Instead, the Leisurability Model could more clearly represent the collective nature of the education process. Leisure education comes from the recreation therapist, but also comes from other stroke survivors. The process of recovery benefits from the engagement of the client with a wide variety of social contacts. In this case, other stroke survivors played a vital role supporting each other in this process.

Expanding the Leisurability Model and TR practice to encompass a more relational approach to TR would help to capture this valuable collective process. The group counselling literature suggests that individuals can take advantage of group synergy and the universality of experience, benefitting from receiving support from each other (Gladding, 2012). We can extend that view in TR by also attending to opportunities for stroke survivors to educate and give support to each other. TR can facilitate these opportunities that can lead to feelings of empowerment and self-worth. Future research investigating this systemic and relational approach to leisure education would result in a more nuanced understanding of the role of leisure education and recreation participation in stroke recovery. Additionally, further study of community recreation and opportunities for TR in these settings is crucial to a more holistic understanding of the practice of TR and the benefits of TR in these community settings.

This study also makes important methodological contributions. PAR and Photovoice are particularly well suited to the practice of TR because of the focus on empowerment and self-determination, as well as the involvement of the participants in every phase of the process (Kemmis & McTaggart, 2005). Employing PAR and Photovoice in future TR research can help to better mobilize research knowledge and actively involve participants in the dissemination of their research. By engaging in PAR and Photovoice in this study, the stroke survivors were empowered to take the findings from the research and become educators themselves, taking the calendar and educating other stroke survivors about their experiences. Community-based TR plays an important role in this progression and can be particularly successful in helping the client move

toward independence in the community. As Freire (1970) notes, PAR contributes to a consciousness-raising, or conscientization, through a process of self-awareness by collective inquiry and reflection. PAR helps participants to focus on both strengths and challenges and, through active contribution to the research process, encourages action for change. As such, PAR and Photovoice in TR can be a valuable means of influencing social policy because each values the knowledge of the person or the community and allows us to "intuitively apprehend its essence: we feel, enjoy, and understand it as reality" (Fals-Borda & Rahman, 1991, p. 4). Likewise, decision making within the healthcare system can be informed by a broader range of data (Lorenz & Kolb, 2009) and policy-makers can develop a more nuanced understanding of the experiences of marginalized groups by engaging more directly in these experiences through PAR and Photovoice. Although this was an inductive, qualitative study based on a small group of stroke survivors and can't, as such, be generalized to all stroke survivors, the methodology allows for a more nuanced, in-depth understanding of the meaning of community-based recreation in stroke recovery for these stroke survivors. Arts-based methods, such as photography, could be used more widely in TR research. This was a method with which both the participants and recreation therapist felt comfortable. It also allowed for participation of individuals with communication challenges whose voices have been systematically ignored in interview-based research. Photographs are also a valuable method of knowledge dissemination because of their accessibility to the knowledge users themselves (recreation therapists and stroke survivors).

The process of PAR was beneficial

to the recreation therapist as well. As an allied health professional and member of the CSRT multidisciplinary team, the voice of the recreation therapist had been silenced due to an inability to communicate the outcomes of TR for the stroke survivors. Freire (1982) stated that, in action research "the silenced are not just incidental to the curiosity of the researcher, but are masters of inquiry into the underlying causes of the events in their world. In this context, research becomes a means of moving them beyond silence in a quest to proclaim the world" (p. 30-31). Although health care practitioners are beginning to incorporate a psychosocial approach to their practice, the medical model persists with an objectivist approach to both research and practice. TR, in advocating for a more holistic, personcentred approach, exists at the margins. Struggling to fit recreation therapy into quantitative research that was being conducted by the CSRT, the practice of TR was further marginalized. Through PAR, the recreation therapist began to find her voice and became empowered to advocate for herself, her profession, and the importance of recreation therapy for stroke survivors. By participating as a co-researcher in this process, she was actively involved in all phases of the research process, from determining the research question to the analysis and dissemination of the results. As she noted in her reflective journal,

I really look forward to sharing my experience of qualitative research with other recreation therapists and with Stroke Strategy [funders]. Ideally, by sharing our story, my stumbling and awkwardness will strengthen TR as a profession but most importantly, it will improve the care provided to persons with disabilities. Clients have told me

how important TR has been on the [rehabilitation] team. Now I have the data to support that claim when I talk to my team.

As Kay (2000) suggested, leisure researchers and practitioners need to be more active participants in the development of social policy. Better integration of research into the practice of TR can facilitate this involvement. Participatory action research effectively addresses the question of relevance in leisure research by integrating theory with practice and by grounding the research in the experiences of the participants from inception to conclusion (Pedlar, 1995). Incorporating practitioners into the community of leisure researchers and providing them with opportunities to fully engage in research and evaluation can serve to empower them and encourage them to advocate for both the profession and the marginalized groups with which they practice.

## Conclusion

The use of PAR and Photovoice in the current study facilitated the full involvement of the stroke survivors and the recreation therapist in the research process. Emphasizing the strengths and capacities of the stroke survivors, both in research and in TR practice, contributed to a stronger sense of well-being for both the stroke survivors and the recreation therapist. The reciprocity of support among stroke survivors was influenced by participating in community-based recreation together, supporting each other in this process, and learning how to adapt and persevere. This reciprocity of support contributed to a renewed sense of hope in their recovery which, in turn, facilitated engagement in their communities. Providing a safe environment where stroke survivors could express

their authentic selves through meaningful engagement in recreation was key to their recovery. Critical reflection on TR practice has expanded TR research and practice into more relational, strengthsbased approaches. This has contributed to enhanced feelings of empowerment and well-being for both stroke survivors and recreation therapists alike, as they engaged in community-based recreation in stroke rehabilitation.

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