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Quality participation experiences in the physical activity domain: Perspectives of veterans with a physical disability

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Running head: QUALITY PARTICIPATION FOR VETERANS WITH A DISABILITY

- 1 Quality participation experiences in the physical activity domain: Perspectives of veterans with a
- 2 physical disability

3

Abstract

Objectives: An important consideration for physical activity (PA) participation for individuals with a physical disability, including veterans, is that opportunities exist for full participation. Full participation can be understood as both the quantity and quality of participation. The objective of this study is to explore perceptions of a quality PA experience for military veterans with a physical disability.

Design: Qualitative semi-structured interviews were conducted to explore perspectives of a quality PA experience.

Method: Eighteen veterans (15 men, 3 women) with a physical disability were recruited using maximum variation sampling to take part in interviews. The interviews explored their PA experiences, with a focus on exploring participants' perspective of a quality PA experience. Data were analyzed using thematic analysis.

Results: Two overarching themes, elements of a quality experience and conditions enabling access to a quality experience, were identified. Within the overarching theme of elements of a quality experience, four key themes were identified: group cohesion, challenge, having a role, and independence and choice. A further three key themes (the physical and social environments, and program structure) were identified within the overarching theme of conditions for accessing the quality experience.

Conclusion: The findings both support and extend previous conceptualizations of quality participation. They provide insight into context-specific understandings of quality for PA and veterans. More broadly, the study contributes towards the literature on adapted PA participation, and provides a framework for practitioners aiming to foster quality PA experiences.

Keywords: impairment, military, participation, sport

Quality participation experiences in the physical activity domain: Perspectives of veterans with a physical disability

The risk of disability for military personnel as a result of critical injuries has grown exponentially with recent conflicts (Bell, Schwartz, Harford, Hollander, & Amoroso, 2008). Veterans with a physical disability are unique compared to civilians with a physical disability due to the circumstances surrounding their injuries. For example, if injured in combat or while still a serving member of the military, they must deal with additional factors beyond their physical condition, including the transition to life following deployment, potential retraining for future deployment, or the transition to civilian life (Resnik & Allen, 2007). These transitions potentially present additional psychosocial difficulties not present in a civilian population (Resnik & Allen, 2007). Furthermore, injured service members and veterans are often young and physically fit (Benetato, 2011). As a result, many ill and injured service members and veterans demonstrate a desire to maintain active lifestyles (Chivers, 2009; Reiber et al., 2010). Physical activity (PA) participation (i.e. bodily movement requiring energy expenditure, which includes sport and exercise; Caspersen, Powell, & Christenson, 1985) is thus becoming a widely used strategy to support the rehabilitation of the growing number of military veterans with injuries resulting in disability (Brittain & Green, 2012).

For veterans with a physical disability, participating in PA post-injury is often demonstrated to have physical, psychological, and social benefits (Brittain & Green, 2012; Caddick & Smith, 2014). These benefits are particularly salient given the physical, psychological, and social impact of acquiring a physical disability and the life transitions that may often follow (Resnik & Allen, 2007). Indeed, providing veterans with the opportunity to

fully participate in PA can be a beneficial component of rehabilitation and adjusting to life post-injury.

Full PA participation entails having access to programs and opportunities, as well as having quality experiences within these programs (Martin Ginis, Evans, Mortenson, & Noreau, 2016). The contrast between access to or amount of PA (i.e., quantity) and the quality of experiences within PA is an important distinction. Notably, whereas quantity is often examined, there has been minimal systematic effort to determine what constitutes a quality PA experience among people with a physical disability, let alone among veterans with a disability. The concept of quality participation experiences is one which, to this point, has solely been examined within the literature in occupational therapy (Martin Ginis, Evans, et al., 2016). Several participation frameworks have been developed within this field, the most prominent of which include Hammel and colleagues' (2008) conceptualization for participation of individuals with disabilities, and the "Do-Live-Well" framework (Moll et al., 2015).

Hammel and colleagues' conceptualization identifies six key values to consider for experiential participation, all of which are founded on the need for respect and dignity: (1) active and meaningful engagement (i.e. freedom to be part of an activity, context or group); (2) control and choice (i.e. power and agency); (3) access and opportunity/enfranchisement (i.e. desire to contribute, and the resulting social inclusion); (4) personal and social responsibilities (i.e. individuals' responsibility to themselves and society, and society's responsibility to support participation); (5) having an impact and supporting others (i.e. be productive and contribute at different levels of society in order to be impactful); and (6) social connection, inclusion, and membership (i.e. full interaction with the community). Moll and colleagues (2015) also highlight key aspects of participation experiences, labeled dimensions, within their participation

framework. These dimensions include: (1) activating your body, mind, and senses (i.e. regular, stimulating activity); (2) connecting with others (i.e. social integration); (3) contributing to community and society (i.e. prosocial engagement); (4) taking care of yourself (i.e. healthy habits and self-care); (5) building security/prosperity (i.e. economic and social security through engagement in meaningful activities); (6) developing and expressing identity (i.e. cultural and/or community activities that allow an individual to develop a specific identity); (7) developing capabilities and potential (i.e. programming and educational opportunities); and (8) experiencing pleasures and joy (i.e. enjoying engagement).

These different conceptualizations are useful in understanding subjective views of participation, and the multidimensionality of participation. However, both models contain elements or definitions specific to occupation contexts. As a result, Martin Ginis, Evans, and colleagues (2016) conducted a review of these and other definitions of participation with the aim of developing a conceptualization generalizable to differing participation contexts (e.g. PA). Six themes resulted from this review: (1) autonomy (i.e. independence, choice); (2) belongingness (i.e. a sense of belonging, acceptance, respect); (3) challenge (i.e. appropriate level of challenge); (4) engagement (i.e. feeling motivated and involved); (5) mastery (i.e. feeling competent); and (6) meaning (i.e. goal attainment, feeling responsible to others).

The conceptualization encapsulates the multidimensionality and subjective nature of participation expressed in other conceptualizations, with general definitions that may be useful when examining participation within different fields. However, further research is necessary as to the relevance, importance, and definition of different experiential elements within different contexts, such as PA. Further knowledge is also required as to how these different dimensions of quality can be fostered within a program context and what conditions enable access to quality PA

experiences. Additionally, exploring the concept of quality participation may potentially aid in building an understanding of why some veterans' PA experiences are less positive than others. Indeed, while research often highlights the positive outcomes of PA for veterans post-injury, some PA interventions may not meet participant needs due to their level of readiness or the nature in which PA is presented, and result in psychosocial struggles (Douglas & Carless, 2015).

The extant research that describes and/or evaluates PA programs for injured veterans points to some elements that may contribute to a quality PA experience. For example, elements highlighted include the importance of exploring one's abilities, building confidence and self-awareness, and enjoyment (Jackson, 2013). However, these elements are the result of observations from the perspective of a program provider. Therefore, the results do not present the findings of a critical research process or centrally place the perspective of the athletes the programs are designed to serve. Research would benefit from using the subjective experiences of participants to understand quality participation, so that the elements reflect the views of the individual engaging in the experience (Hammel et al., 2008; Martin Ginis, Evans, et al., 2016). Caddick and Smith's (2014) systematic review of outcomes associated with PA among veterans with physical and/or psychological injury describes experiential outcomes such as a renewed sense of self and feelings of confidence, enjoyment, and relaxation. However, exploring quality participation was neither the objective of the review nor of the studies included in the review, and the focus was specific to participation outcomes. As a result, the findings cannot build an understanding of quality participation experiences. Moreover, the review was not exclusively focused on veterans with a physical disability. A comprehensive exploration of the elements that constitute and support a quality PA experience for veterans with a physical disability is needed. Thus, the purpose of this study is to explore perceptions of a quality PA experience among

military veterans with a physical disability. Understanding veterans' perceptions of quality PA participation moves research forward in conceptualizing full participation in PA, and may provide practitioners with direction for creating PA programs that promote quality experiences.

Method

Philosophical Assumptions

The perspective of the researchers in the current study is that multiple context-dependent realities exist, and that knowledge is constructed based upon participants' understanding of their reality. As such, this study is based ontologically in relativism, and epistemologically in constructionism. Applied to this research, we sought rich depictions of each participant's experience, and worked to generate an understanding of quality experiences that also provided room for variations and for each participant to explore quality within his or her own terms. Although we link our results to frameworks of participation, we were nevertheless cautious to ensure that individual stories retained their context dependence.

Participants

Following receipt of ethics approval, veteran organizations were contacted to disseminate recruitment information to their members. Participants were included if they were military veterans (defined as former members of the military who were no longer serving) with a physical impairment (i.e. impairment that limits physical functioning), who participate in organized PA programs. Participants were excluded if they had sensory impairments (e.g. visual impairments), or were diagnosed with a psychological injury (e.g. post-traumatic stress disorder) but with no physical functioning limitation, as these conditions might alter program needs beyond what would be necessary to accommodate veterans with physical functioning impairments.

Participants were recruited using maximum variation sampling. This method was chosen as it involves purposeful sampling of diverse participants from various contexts, which better permits identification of essential elements of the phenomenon studied (Patton, 2002). Key variations sought in participants were: (a) country served; (b) type of injury; and (c) PA experience. To reach these aims, three main recruitment strategies were used. First, to include veterans from different countries, (thereby incorporating a range of recovery experiences based on differing national frameworks and systems of rehabilitation), participants were recruited from organizations in Canada, the United States of America (USA), and the United Kingdom (UK). Second, while most of the current research focuses on veterans solely with combat injuries (e.g. Caddick & Smith, 2014; Douglas & Carless, 2015), the decision was made to include veterans with both combat and non-combat injuries. This choice aids in increasing the long-term applicability of the results beyond periods of conflict, and widens the relevancy of the findings to a larger group of veterans who access PA programs. Regardless of how a veteran is injured he or she may benefit from quality participation. Finally, to recruit participants with different types of PA experiences, effort was made to recruit from organizations that provided different types of programming including recreational and competitive PA (e.g. weekly activity events or competitive training), and physical challenges (e.g. mountain climbing; Caddick & Smith, 2014). Recruitment continued until the authors determined that data saturation had been reached, specifically when no new information or patterns emerged during subsequent interviews or during analysis (Sparkes & Smith, 2014). The final participant sample consisted of 18 veterans with a physical disability (15 men, 3 women). (See Table 1 for demographic information.)

Procedure

Participants took part in two interviews. One-on-one interviews were chosen over other qualitative methods (e.g. focus groups) given the potentially sensitive nature of the information that may have been shared (e.g. injury experiences), and to enable the participants to share detailed, multi-layered stories about their PA experiences. During the first interview, a timeline was developed of the participant's PA experiences using a structured interview format (Adriansen, 2012). This interview lasted an average of 27 minutes, and permitted the interviewer to build rapport with the participant and gain an understanding of the participant's PA history. The second interview averaged 63 minutes, and was scheduled for one week after the first interview. This schedule was followed for all but three participants, for whom there was a delay of two weeks to one month in order to accommodate PA competition and training schedules. One participant requested a follow-up interview. A third 40-minute interview was conducted with this participant during which additional PA experiences were explored.

The same interviewer (primary author) conducted all interviews. Due to the geographic dispersion of participants, all interviews took place via telephone ($n = 13$) or Skype ($n = 5$) according to participant preferences. While face-to-face interviews are commonly preferred for building rapport and attending to non-verbal cues (Shuy, 2002), research comparing the use of telephone and Skype interview methods with face-to-face interviews has demonstrated no differences in the resulting data (Hanna, 2012; Sturges & Hanrahan, 2004; Trier-Bieniek, 2012). Indeed, remote communication can have added benefits such as increased participant comfort and anonymity, and decreased social pressure (Sturges & Hanrahan, 2004). The interviewer was still able to build rapport by communicating with the participant prior to the interview, and by dedicating time during the interview to interact with the participant beyond the interview guide (e.g. answer questions; following up on life events that the participant had discussed in e-mails

or in the first interview such as upcoming competitions or training; Scott, 2004). Finally, the interviewer remained attentive to non-verbal cues as participant faces are visible on Skype, and cues such as pauses and changes in intonation are present when speaking on the phone.

The Interview Guide

During the first interview, participants were asked to identify their different PA experiences, as well as which PA experiences post-injury were the most positive or negative to help provide a focus for discussion in the second interview. The aim of the second interview was to explore participants' perspectives of quality using a semi-structured approach. The interview guide was structured around three topics: (1) the environment (e.g., "Tell me a story describing an ideal PA environment."); (2) relationships (e.g., "How would you describe an ideal relationship in PA with a coach?"); and (3) engagement (e.g., "Tell me about a time when you considered yourself ideally involved in PA."). The interview guide also included a closing section to gain general perspectives on ideal PA experiences (e.g. "If you had the opportunity to develop an ideal program, what would it look like?"), as well as determine whether any aspects of their PA experiences had been overlooked. The interview guide was used flexibly such that participant responses guided the order in which questions were introduced, and topics covered.

Data Analysis

Responses from the first interview were used to prompt discussion of specific PA experiences in the second interview (e.g. comparisons of different environments, and highlighting ideal or challenging experiences). These responses were not included in the thematic analysis described below.

We used an inductive thematic analysis approach to identify, analyze, and interpret patterns in the responses from the second interviews. A thematic analysis was chosen as the

method allowed us to develop themes reflective of the commonalities in all participant views and experiences (Braun, Clarke, & Weate, 2015). Our approach consisted of fluid cycling through the six phases of thematic analysis suggested by Braun and colleagues (2015). First, the lead author immersed herself in the data through continuous re-reading of the transcripts, and making note of preliminary thoughts and patterns. She generated initial codes from the transcripts using NVivo qualitative analysis software, and then grouped codes into potential themes. Specifically, open codes were first created within each interview by identifying individual meaning units representative of each participant's experiences. These codes were then organized into two overarching themes – elements of a quality experience and conditions enabling access to quality experience. Within each overarching theme, the data were further organized into key themes (i.e., the four elements of quality experience and the three conditions enabling quality experience). Where applicable and necessary to provide detail and clarification of participant perspectives, sub-themes were also identified (e.g., four sub-themes were identified for the quality element of group cohesion).

The lead author then met and discussed the content and structure of all themes with a research assistant who also had reviewed and independently coded the transcripts. This research assistant acted as a critical friend, questioning the lead author's themes and assumptions to promote reflection (Sparkes & Smith, 2014). Through this discussion and the lead author's ongoing consultation with the full dataset to ensure that the themes presented were meaningful representations of the data, key themes were further developed, refined, and subsequently named. Emerging themes were reviewed against the individual transcripts and the entire data set. The analytic process continued throughout the drafting of written reports. The reports were read by several of the co-authors who served as additional critical friends by encouraging further

reflection and alternate interpretations of the data. These discussions, reflections, and alternate interpretations were used to enrich the results and general discussion through the inclusion of additional quotes to further contextualize themes, as well as provide connections and interpretations of the findings within the literature. Previous conceptualizations of participation (e.g. Hammel et al., 2008; Martin Ginis, Evans, et al., 2016; Moll et al., 2015) were adopted and used as interpretive devices to understand the key themes and situate them in the context of extant literature. The frameworks did not impact themes but rather provided depth to each theme's interpretation.

Quality of analysis. Aligning with our relativist approach, validity could not be supported by a pre-determined set of quality criteria (Sparkes & Smith, 2014). Thus, criteria were chosen based upon an evolving list of quality indicators (Tracy, 2010), particularly: the worthiness of the topic; rich rigor (e.g. appropriate data collection and analysis); credibility (e.g. thick description); and meaningful coherence (e.g. compatibility between the study purpose, methods, results, and interpretation). Other steps taken to enhance quality included involving multiple critical friends throughout the research process to promote further reflection.

Results

In broadly exploring veteran perspectives of quality participation, two overarching themes emerged: elements constituting quality PA experiences, and conditions enabling access to quality PA experiences. Within the first overarching theme, four key themes emerged each representing an element of a quality PA experience. The content of each of these themes helps to conceptualize the quality experience element in a veteran PA context and also provides insight into how to foster the element in a practical setting. One of the key themes, group cohesion, was discussed extensively, and was further divided into sub-themes. These sub-themes provide rich

description of how to foster group cohesion.

The second overarching theme represents conditions enabling access to quality.

According to participants, these conditions represent the foundation of a quality PA experience, and must be present in order for the quality elements to be fostered. Three key themes emerged as important conditions, each with a set of sub-themes. The key themes and their sub-themes largely have already been identified within the PA and disability literature. In an effort to extend this literature, our results focus on situating the conditions within the context of a quality participation experience. Supporting quotes for these latter themes are provided in Table 2.

Elements constituting a quality PA experience

Four key themes describing elements of a quality PA experience emerged: group cohesion, challenge, having a role, and independence and choice. Four additional sub-themes were identified for the theme of group cohesion.

Group Cohesion. Participants identified positive social environments as essential for quality PA experiences, and continued participation. Within the PA psychology literature, cohesion is defined as “a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs (Carron, Brawley, & Widmeyer, 1998, *p.* 3).” Participants’ descriptions of the optimal social environment align with this definition highlighting four elements necessary for fostering cohesion, which are reflected in four sub-themes: camaraderie, communication, acceptance, and a shared focus.

Camaraderie. Camaraderie was characterized by a shared sense of humour and understanding, and being there for each other even when challenged by the activity or

psychological or physical boundaries. Moreover, the sub-theme of camaraderie is also seen as a way of challenging oneself to progress post-injury.

(...) A strong element of friendship. There's mutual respect and appreciation for what each other does. I try and help him where I can in terms in the same way that he's supported me through a psychological, and to an extent, physical element in the early stages of my recovery and continued to encourage me and push me mentally, well and physically, even now. The confidence that's developed mutually and the respect that comes from that builds a very strong bond. (Matthew)

Camaraderie was considered easiest to foster in exclusively military environments, which were often preferred when compared to program environments that integrated both civilians and military personnel. Within a military environment, participants felt united by a shared background, a shared understanding of life experiences, a shared work ethic, and trust:

The Invictus Games¹ team was amazing! It was the fact that everyone was military or ex-military, and everyone was injured, and everyone was in the same boat, and everyone sort of spoke the same language. That was amazing! To be back in a military team again that is the ideal environment because I've since played matches with civilians and it's not the same. There isn't the same discipline, there isn't that same willingness to give everything, to put everything on the line for your teammates. (Louis)

Some participants provided suggestions for creating integrated settings that are enjoyable and come close to fostering the cohesion enjoyed in a military setting. Participants indicated that civilians have to be serious about their involvement, demonstrate a strong work ethic, and have a similar mindset to military personnel (e.g. goal-oriented). Under these circumstances, a small

¹ The Invictus Games are an international PA competition, inaugurated in 2014, specifically for military service members and veterans with illnesses and injuries (Invictus Games, 2014)

number of participants enjoyed integrated environments, as they felt that civilians were more recognizing of achievement and hard work, creating a more appreciative environment: “They’re more receptive to the challenge and see it as a greater achievement compared to someone in the military. A lot of us tend to play our circumstances down and be a little humble about what we do and achieve!” (Matthew)

Communication. Two-way open and honest communication was desired between athletes and coaches, as well as amongst teammates, to help build cohesive bonds and improve PA skills:

It [an ideal relationship] is really about opening up and not holding anything back, which sometimes is humiliating to me to have to admit some things. But if we want to have the ideal relationship, I need to make clear of the humiliation and just tell him what is going on, like seriously going on with me, for him to be able to coach me better and for me to be able to perform better. (Celeste)

While communication was important for the quality of one’s experience, participants did highlight that it was considered difficult to achieve, as it required an underlying element of trust which many found challenging. For some participants, a lack of trust may have been the result of a lack of comfort or safety in the environment. For others, PA experiences may be limited in duration (e.g. a try-out day, or a one week activities camp), limiting opportunities to build the necessary trust for open communication.

Acceptance. Acceptance emerged as a sub-theme for all participants but held different meanings. The most common meaning related to the development of non-judgmental relationships (“You’re not going to be criticized (...) You’re not beat up with it [a bad performance]. Everybody works with everybody to improve the quality of their skill.” Reggie). In order to achieve this level of acceptance, participants felt that there had to be understanding

for one's capabilities, as well as a demonstration of skill, and recognition for that skill. Participants linked feeling accepted to wanting to do more and be more involved in the program ("It [being acknowledged and accepted by others] gave me a bit of a morale boost and a bit more motivation to keep going." Henry). When non-judgmental relationships were present, participants described wanting to perform better for the coaches and teammates who made them feel accepted. This reaction aligns with the definition of cohesion wherein the unity of the group is related to goal pursuit and the satisfaction of team needs.

Fostering acceptance may, in some cases, be difficult. Participants identified a hierarchy of injuries such that individuals with a less visible physical disability, or an injury judged less traumatic or debilitating, were often excluded in PA programs. One participant with impairments that were only identifiable when participating in PA highlighted these potential challenges:

I didn't feel accepted by my colleagues who were there because there was no physical injury to see. So they were like "What's wrong with you? Why are you here?" And then I would say, "I've got an injured shoulder, and I've got MS [multiple sclerosis]". They would sort of ignore you after that because you hadn't had your legs blown off or stuff like that. (Judy)

Shared focus. Cohesion was also fostered by a shared focus, which consisted of having shared goals for recovery, competition, or PA event, and a shared approach to PA participation, which could potentially differ based on the individual or team. ("You're going to a training camp or something like that, people are coming there to come together collectively for a purpose or for a reason." William; "Being with other people who have got that same mentality, which is probably the best outcome because you all strive for the same thing, you all want to achieve the same goal, and essentially you can all then achieve that goal." Hugh).

Having a similar focus in order to foster cohesion was important amongst program participants but also between program participants and program staff. A shared approach to participation was key in determining whether to return to a program. Program staff had to focus on participant goals, and have the needs of veterans at heart (“Not out there to exploit your injury for profit. They’re there for you.” Bradley) rather than focus on other motives. When lacking, participants avoided the program and were hesitant to trust other opportunities.

Challenge. Participants identified a preference for experiences that tested them mentally and physically. A challenging task was characterized by opportunities for friendly or high-level competition and risk often described by participants in contexts such as mountain climbing expeditions, PA training, and competitions. One participant highlighted the importance of competition to challenge as follows: “To be able to compete, to still compete even though you’re disabled. To be able to do things, to be able to physically do things still and test yourself. To test your mind, physically and mentally. (Alan)”

Mental and physical challenge could also emerge from recreational physical activities that require an individual to leave his or her comfort zone. One participant, Reggie, highlights challenge and his experience with risk and “real danger” when facing dangerous and unexpected currents on an organized recreational kayaking trip with a veteran program. This challenging experience built his sense of competence and desire to stretch physical and mental boundaries: “What makes it a peak experience was I was in some real danger and I won. After I got over being tired it felt really good because what it did was it gave me a new level of self-confidence and willingness to risk.” Challenge was portrayed as providing meaning, reward, and a sense of accomplishment, as well as an outlet for negative moods. This sub-theme was also linked to a

desire for tougher PA options and mental and physical challenges that result in feeling tired after involvement:

I enjoy alpine skiing so much! You ski on one leg and you look up and you think “Oh! I’ve just come down that!” So that’s nice psychologically. (...) It gets rid of a lot of pent up – not aggression but pent-up physical – it gets me tired. I get back in the house and I reflect on what I’ve done in that day and then I look at my diary and I think a year ago I was doing red slopes and now I’m doing triple blacks. That gives me a sense of wanting to do it again. Every time I go out, I want to do it again but I want to do something slightly harder. (Alan)

Having a role. Participants identified the desire to have a social position, or role, in the program as part of an ideal participation experience. Roles could vary based upon an individual’s length of involvement in a program (experienced or novice), program type (recreational or competitive), or long-term goals for their sport participation (sport as a potential profession or sport as a means of maintaining activity and desired levels of fitness). Potential roles desired within programs included valued participant, ambassador (“I try and see myself as much as an ambassador as possible. The charities I support are often disability or adapted PA, and the people that I support are usually involved in PA in one way, shape or form.” Henry), instructor (“I actually do want to teach disabled people to swim (...) I think it’s the joy they get when they actually realize that they can swim and they can do things. It gives me such pleasure because they have such pleasure from it.” Judy), peer mentor (“I can offer deep insight.” Bradley), and supportive individual for teammates (“I get a lot of reward psychologically from seeing others achieve around me or helping others achieve.” Matthew).

Having a role within a PA group or program was identified as an element of a quality experience as it helped participants feel more included, and purposeful, and want to continue their participation:

That slightly selfish side of me that wants to have a purpose to something and gain some personal achievement and challenge. But I get a lot of reward psychologically from seeing others achieve around me or helping others achieve. (Matthew)

Other participants connected the importance of having a role and feeling a sense of worth with regaining the meaning and purpose they had enjoyed about their military lives. One participant, Louis, highlighted this aspect of having a role when discussing his new position as an advocate for his fellow injured veterans:

When you join the military you're important, you're told that you're part of something bigger, you're part of a very large machine that defends people and looks after the country and the world. Then, when you're injured, you're a broken part of that machine that gets taken out and replaced, and that sort of impacts on you mentally quite a great deal. (...) I'm seeing this now, my sort of transformation is I'm going into battle for them [fellow injured veterans] and for me it's sort of I've been empowered now and I feel sort of like I did like I was in the military. (...)

Independence and choice. Participants wanted independence and choice within the structure of a PA program. Independence was described as scenarios where participants were given some freedom within the structure of the program, particularly in relation to their impairment: "when they let you go and they're close by in case something goes wrong, but they're not holding your hand. They're a couple of feet behind or a couple of yards behind you."

You're basically on your own." (Bradley). Participants also expressed a desire for independence when receiving assistance from program staff:

Soon as they try to help me up the hill to push me I'm like, "Don't touch my wheelchair, I'll do it!" (...) I don't like being thought of as being in a – I know I'm in a wheelchair but I don't need help. I'll need help when I'm 65 or 70! (Tom)

Independence could be fostered through these actions demonstrated by program staff, and as such required a level of knowledge on behalf of staff as to when or where to intervene or assist.

The concept of choice related to having options when participating in a program. Ideal program experiences were described as those that offer multiple activities with opportunities to play at many levels (e.g. recreational or competitive). Providing different sport options so that participants could choose one that matched their needs could also foster choice ("I went to about six different sports which flicked my switch inside me." Alan). These quality experiences allowed participants to make decisions regarding how they wanted to be involved in PA.

Conditions supporting access to a quality experience

In their discussion of quality, participants made clear that to enable full participation, programs must not only include elements that create a quality experience but should also have conditions in place that permit access to the experience. Whereas some models of participation include access and opportunities as an element of participation on par with other quality elements (Hammel et al., 2008), we position these structures as precursors or necessary conditions, which must be in place for quality elements to be fostered and for quality participation experiences to occur. This perspective is similar to Moll and colleagues (2015) who identify factors that can impact participation.

Three key themes representing factors that foster access to a quality experience emerged: (1) the physical environment; (2) the social environment; and (3) program structure. As these factors have been identified in previous literature (c.f., Martin Ginis, Ma, Latimer-Cheung, & Rimmer, 2016), we provide only a brief overview as a basis for enabling access to quality PA tailored to injured veterans. In an effort to advance understanding of full participation in PA, our focus is on interpreting these findings in the context of a quality PA experience. (Supporting quotes for access themes are included in Table 2.)

Physical environment. Participants described accessibility, including the design of the physical environment (i.e., built environment) and feeling comfortable within the built environment (i.e., practicality of the environment), as crucial for whether or not they took part in a program or chose to return. Geography also emerged as important. Programs taking place in easy-access central locations, as opposed to programs that continuously change location or which require travel, were considered preferable (i.e., central location). Many participants also appreciated nature-based PA (i.e. the outdoors).

The experiences discussed highlight a number of concerns relating to accessing a quality experience. For example, participants voiced a disconnect between environments being labeled accessible but lacking in comfort or accessible components. In these scenarios, participants could not engage in the program to the desired level or had to focus on accessibility concerns to such an extent that PA performance suffered, while others had to travel long distances for more accessible training facilities. Thus, engagement, a further element of quality participation identified by Martin Ginis, Evans, and colleagues (2016) was impacted when the physical environment was lacking in necessary accommodations. Poor accessibility also limited independence as participation required reliance on program staff for basic access and travel

needs (e.g. carrying participants up stairs). These less than optimal contexts, which promote a feeling of being “disabled” by the PA program, decreased the quality of the experience.

A second finding was the value placed on outdoor PA, a context that has begun to emerge as a preferred location for PA for veterans (Caddick, Smith, & Phoenix, 2015). Within the current study, the outdoors related to the quality elements of challenge, discussed in this paper, as well as mastery, included in the review by Martin Ginis, Evans, and colleagues (2016). Participants identified the unknown aspects of the outdoors as providing continuously novel challenges, and opportunities for risk, resulting in a sense of mastery.

Social environment. When considering social aspects of the environment that can support or impede a quality experience two sub-themes emerge: (a) the role of family and friends in fostering a quality experience either through their participation or by being a supportive presence; and (b) the general public’s positive or negative response to the participants’ injury.

The further emergence of social elements as a condition for quality participation underscores the importance of programs considering social aspects of participation. The two sub-themes highlight the ways in which individuals in an environment can promote or hinder participation and experiences of disability (Thomas, 1999). When family and friends promote PA to individuals with a physical disability PA motivation and involvement can increase (Littman et al., 2014). Extending this notion, participants suggested that the support of family and friends, and in some cases their actual involvement, has the potential to promote quality experiences. For example, participants indicated that engaging in PA with family and friends helps to create a sense of belongingness. Participation of family and friends also increased enjoyment, thus increasing the quality element of engagement (Martin Ginis, Evans, et al., 2016).

The second sub-theme focusing on the general public links the social environment to a further aspect of quality: acceptance. Participants discussed how the perceived negative actions of others (e.g. staring) and a lack of acceptance adversely impact the program experience. The potentially harmful impact of this social interaction highlights the need for program organizers to consider who might be present in the PA environment, and the resulting implications.

Program Structure. Participants identified a need for well-structured programs (i.e. programs with structured daily plans, different streams for different levels of ability, and run according to a military structure). They also described two further aspects of programs that enable access to a quality PA experience: (a) requirements for coaches or instructors to promote participation and safety; and (b) general programmatic barriers

The first sub-theme relates to a continued area of research within PA for individuals with a disability: coaches' training and background (Falcão et al., 2015; McMaster, Culver, & Werthner, 2012). Interest in this topic stems from issues that also arose in participant interviews, specifically coaches' lack of training and knowledge (McMaster et al., 2012), which may result in safety fears and limit full participation. Within this study, participants described requirements that were thought to result in a coach who could teach PA skills, support independence, and help them feel safe. Participants wanted coaches that would be tough and not overprotective. They often felt let down if someone was scared to push them because of their disability. However, participants also wanted a coach or instructor to be understanding, know their abilities and limits, and provide encouragement both on and off the field. Participants also requested that coaches be understanding of their military background and experiences (e.g. be knowledgeable about the military, and the circumstances and implications of their injury and recovery process

such as the challenges of transitioning to civilian life). The feedback provided by participants may aid in creating appropriate coaching training, and supporting the development of coaches.

Participants' extensive discussion of general programmatic barriers including safety (e.g. some participants wanted on-on-one instruction to alleviate concerns), injury (e.g. warmer environments were described as better for nerve damage), resources (e.g. program costs and participants' financial position), and PA opportunities (e.g. PA classification barriers that limit PA options), demonstrates the prominence of barriers preventing access to quality PA experiences. The obvious solution is developing programs that address these barriers, as well as providing skilled instruction and coaching. However, it is important to consider the feasibility of addressing all programmatic barriers and coaching/instruction needs. For example, it may be difficult for programs with limited funding to provide all the necessary resources to fully support veteran's participation or to continuously involve all interested participants. However, attempts can be made to improve access to government funding either for the program or the participant, and to provide equipment. Programs also may not have the resources to develop their own military-specific training for instructors. An option is to rely on PA certification from other organizations supplemented with an introduction to the unique needs of veterans.

Discussion

To achieve full participation, both the quantity and quality of an experience must be considered (Imms & Granlund, 2014). However, while quantity can be understood or measured as the amount of involvement, little is known about quality participation in PA, as well as how it may be fostered, particularly among veterans with a physical disability. This study aimed to explore views of a quality PA experience among veterans with a physical disability. The findings provide insight into PA- and military-specific elements of quality participation and conditions for

accessing quality participation experiences. The contributions of the study findings for extending theory and practice are considered below.

Group Cohesion

Considering the key theme of cohesion, and its subthemes, within the context of the extant literature, the theoretical contribution of the results becomes apparent. In their conceptualization of quality participation among people with a physical disability, Martin Ginis, Evans, and colleagues (2016) identified belongingness as an important experiential component of participation. Through our theme of cohesion, however, participant responses suggest that belongingness emerges through a combined and multidimensional group experience with peers rather than simple positive relationships with a few individuals.

The current study further extends the conceptualization of belongingness by providing insight into additional and perhaps context specific experiential aspects important for fostering cohesion or belongingness within PA. For example, the role of communication, camaraderie, and shared focus are not addressed in Martin Ginis, Evans, and colleagues' (2016) conceptualization of belongingness but emerged as important in the current study. Furthermore, the current study emphasizes the interaction between social and task dimensions of participation, whereas others have mostly focused on the social aspects of participation (e.g. Hammel et al., 2008). These differences potentially arise due to context. Belonging or connection within PA presents a set of tasks and relationships that are different from other participatory contexts such as social intimacy and spirituality, which are included in other perspectives of participation (Hammel et al., 2008). Thus, the current study's conceptualization extends the understanding of how social aspects of quality should be understood and defined. The findings also suggest that other conceptualizations may require modification if implemented within a PA setting.

In addition to considering the current findings within the context of participation frameworks, it is also interesting to examine the findings in the context of the literature in sport and exercise psychology. Cohesion in PA for individuals with disabilities, particularly how it is defined and fostered, is an emerging area of research (Falcão, Bloom, & Loughead, 2015). The sub-themes from the current investigation suggest similarities to previous definitions of cohesion in PA for individuals without a disability (Carron et al., 1998). Participants discussed dynamic interactions (e.g. communication and acceptance), and a focus on unity and a common bond (e.g. camaraderie), with the goal of meeting personal and group goals (e.g. a shared focus). However, there are potential challenges to creating cohesion which may be unique to veterans (e.g. trust as important for communication, acceptance of different injury types). Further knowledge of how to meet participant needs while dealing with some of these challenges is necessary.

Challenge

Challenge as a critical part of a quality PA experience also relates to other conceptualizations of participation (Martin Ginis, Evans, et al., 2016; Moll et al., 2015). The conceptualization of challenge within the current study further extends Martin Ginis, Evans, and colleagues' (2016) framework by highlighting the importance of both physical and mental challenges, and suggesting potential relationships or interactions amongst different elements of quality. Participants linked challenge and being successful at a challenge as critical for feeling a sense of mastery and meaning, two other elements of quality participation identified by Martin Ginis, Evans, and colleagues. This finding also relates closely to Moll and colleagues' (2015) dimension of experience entitled "developing capabilities and potential." Moll and colleagues view mastery experiences as involving challenge in order to achieve meaningful goals, and build skills. These differing views underscore the complexities of accurately conceptualizing and

effectively fostering quality participation, highlighting again potentially context-specific aspects of quality.

Within the literature on veterans' PA, challenge has often been discussed in terms of the types of PA experiences and program goals (Jackson, 2013). Challenge changes service members' conceptualization of PA. They move from engaging in PA to achieve health benefits to using it as an opportunity to demonstrate to themselves and others that they have achieved growth and resilience, and overcome the trials of their injuries (Munroe, 2014). Challenge is described as something to be enjoyed, and seen as necessary for reaching one's potential and being able to realize the new possibilities that were present in life post-injury (Munroe, 2014).

Having a Role

This theme relates directly to elements expressed in different conceptualizations of participation (Hammel et al., 2008; Martin Ginis, Evans, et al., 2016; Moll et al., 2015). In these conceptualizations, having a role can be linked to dimensions of a participation experience including personal and societal responsibility, having an impact and supporting others, meaning, and contributing to community and society (Hammel et al., 2008; Martin Ginis, Evans, et al., 2016; Moll et al., 2015). All identify the way in which this element makes the individual feel that he or she is being empowered, making an impact, being useful, and contributing towards the attainment of meaningful personal and societal goals (Hammel et al., 2008; Martin Ginis, Evans, et al., 2016). Within the current study, having a role is seen as a way of contributing to the community that helped foster one's growth post-injury, and in this way may also feed into the sense of belonging that a veteran feels towards his or her community. This study extends upon previous conceptualizations by highlighting specific roles that may be beneficial in fostering a

quality experience within a PA program or event. This specificity will aid PA program organizers in determining how to foster quality experiences.

The importance of having a role in a program and developing a sense of responsibility and meaning can potentially be optimally understood in the context of veteran and identity research. A veteran's identity and social status is challenged following injury (Brittain & Green, 2012; Green, 2013). Veterans may feel that others view them differently as a result of injuries, and may also lose a sense of purpose and belonging (Green, 2013). Thus, if PA provides an opportunity to have a new role and purpose within a valued community, the positive impact on a veteran's identity and PA experience could be unique and vital to well-being. Conversely, if individuals are not satisfied in their roles (e.g. feel rejected, burdensome, lack confidence, or lack information) their enjoyment, performance, and engagement with the program, or group may be negatively impacted (Beauchamp, Bray, Eys, & Carron, 2005; Embuldeniya et al., 2013).

Independence and Choice

Independence and choice as elements of a quality PA experience relate to conceptualizations of participation identified in different contexts. For example, Hammel and colleagues (2008) identify the importance of a participant feeling personally powerful within a participation context (i.e. control and choice). As in the current study, the importance of being able to choose and independently make a decision regarding the method and time of participation was recognized as an important element through which individuals with a disability, such as veterans, can develop agency and learn to self-advocate (Hammel et al., 2008). This theme is also present within Martin Ginis, Evans, and colleagues' (2016) conceptualization, which includes independence, choice, and control within "autonomy." The current study thus demonstrates the applicability of this element within PA, while extending previous research to

highlight methods participants identify for fostering independence and choice within a structured PA program.

Within this theme, there is also additional opportunity for interpretation based on the veteran PA literature. Burke and Utley (2013) highlight that it may not always be possible to provide autonomy based on the nature of the challenge. However, while extreme physical challenges may limit opportunities for independence and control, participants may nevertheless still feel autonomous if able choose whether to participate in the program, or if able to provide insight during planning and preparation. In other, less extreme contexts, the stories relayed by participants regarding the importance of being involved in decision making, having choice, and feeling independent, provide indications of how practitioners could create quality experiences.

General Considerations

The results can also be considered within the context of the social relational model of disability (Thomas, 1999). The social relational model highlights that individuals can experience disability at the public level through structural elements (e.g. elements of the physical environment) and social interactions with others (e.g. the relationships one has with peers, program staff, or family members), as well as at a personal level through the way that individuals may internalize societal views and responses to disability (e.g. feeling independent or able to contribute through meaningful roles; Thomas, 1999; Reeve, 2004). The findings of the current study correspond to the different levels of this model (e.g. having a role as internalizing societal views, or cohesion as an example of social interactions). Thus, if the elements are implemented to create a quality PA experience, and access factors are considered, programs may lessen feelings of disablism, and increase participants' sense of empowerment.

Considering our results within the context of the social relational model also suggests important cautions for program administrators. For example, the sub-theme of acceptance provides an example of when negative social interactions may be present. If internalized, the resulting feelings of vulnerability and exclusion may impact self-perception and limit participation. Also, as the concept of quality participation gains momentum, ideally quality elements will be integrated into program mandates. However, if organizations feel obligated to integrate quality elements into programs or disrupted by the changes required, and make these feelings known, individuals with physical disabilities may feel that they are being a burden (Reeve, 2004). The ramifications could be detrimental to well-being (Reeve, 2004), particularly for veterans who may still be in the process of developing their identity post-injury and finding their place in civilian life. A collaborative participatory approach to integrating quality participation into organizations may help to address this potential issue. Thus, by exploring the findings and their implications within the context of the social relational model, it is apparent that PA participation does not exist in a vacuum but interacts with multiple structural and psychosocial factors, which must also be considered so as to not marginalize the participant.

The current study builds upon the previous conceptualizations by highlighting methods through which the four quality elements could be fostered, providing a more complete understanding of a quality PA experience. As a result, the findings from the current study can also be considered from the perspective of practitioners who wish to develop quality PA programs. For example, cohesion as a component of a quality PA experience highlights the primacy with which program staff and organizers must consider the social nature of their activities. To foster cohesion, organizers should consider whether features of the program encourage camaraderie, communication, acceptance, and shared goals. At a broader group level,

they should consider who is involved in the activities. Peers are a valued source of PA information and support within the current study, and indeed within the literature on military and civilians with physical and psychological disabilities for many individuals with a physical disability (Caddick, Phoenix, & Smith, 2015; Letts et al., 2011; Wu & Williams, 2001). Thus, when appropriate, organizers should consider organizing programs based on peer groups when striving to develop a quality PA experience. However, consideration must be given to the identity of these peers as either veterans or civilians, and the nature of their injuries.

The authors do, however, caution that from a practical perspective it also is important to consider individual preferences. Personal preferences may impact what elements of quality participation shape perceptions of a quality experience. For example, one veteran may place greater value on independence and choice than having a role. Program providers should leave space for individuals to express what they need from a program to fulfill their own program goals and to create their own quality experience. As a further example, in terms of program implementation, challenge is often considered in terms of the type of activity (e.g. difficult or extreme physical challenges such as mountain climbing expeditions; Burke & Utley, 2013) or the program structure (e.g. implementing team and individual challenges to stretch individuals beyond comfort zones to build mastery but within a controlled and safe environment; Jackson, 2013). When implementing challenge individually rather than as a team, program staff should also consider that challenge is an individual benchmark, and that different levels of challenge or different activities may be required to fulfill individual participants' challenge needs.

Limitations

A first limitation is that the current exploration did not consider any potential cultural differences in participant views. This should be examined further as access to care, support, and

PA experiences may vary according to country. We also did not consider how experiences vary as a result of injury characteristics and presence of comorbidities (e.g. post-traumatic stress disorder) due to sample size. Specifically, our sample did not include a sufficient number of participants demonstrating each characteristic to make these distinctions. A further limitation of this study is that male veterans are over-represented in this sample, a common concern within military health research (Yano et al., 2010). Potential gender differences may exist in how veterans perceive and experience quality, as well as what elements may be most important in meeting quality needs within a PA context. Thus, future studies could consider the gendered dynamics of participation and how they might influence perceptions of quality. Finally, the study did not include the perspective of non-physically active individuals. As individuals engaging in PA, the participants likely have more positive views of their PA experiences. Future research could benefit from those who tried PA and dropped out or never engaged in PA to understand their perspective on their experiences, and their views of quality.

Conclusion

The findings provide the first research-based conceptualization of quality PA experiences for veterans with a physical disability. Future research can evaluate the elements identified, as well as determine the generalizability of its components to other populations with disabilities, or veterans with psychological or sensory injuries. The results of this study represent a significant contribution to the literature on PA participation, as well as veterans' rehabilitation and transition to life post-injury.

References

- Adriansen, H. K. (2012). Timeline interviews: A tool for conducting life history research. *Qualitative Studies*, 3(1), 40-55.
- Beauchamp, M. R., Bray, S. R., Eys, M. A., Carron, A. V. (2005). Multidimensional role ambiguity and role satisfaction: A prospective examination using interdependent sport teams. *Journal of Applied Social Psychology*, 35(12), 2560-2576.
- Bell, N. S., Schwartz, C. E., Harford, T., Hollander, I. E., & Amoroso, P. J. (2008). The changing profile of disability in the U.S. Army: 1981-2005. *Disability and Health Journal*, 1, 14-24.
- Benetato, B. B. (2011). Posttraumatic growth among Operation Enduring Freedom and Operation Iraqi Freedom Amputees. *Journal of Nursing Scholarship*, 43(4), 412-420. doi: 10.1111/j.1547-5069.2011.01421.x
- Braun, V., Clarke, V., & Weate, P. (2015). Using thematic analysis in sport and exercise research. In B. Smith & A. Sparkes (Eds.), *International handbook of qualitative research in sport and exercise*. London, UK: Routledge.
- Brittain, I., & Green, S. (2012). Disability sport is going back to its roots: Rehabilitation of military personnel receiving sudden traumatic disabilities in the twenty-first century. *Qualitative Research in Sport, Exercise, and Health*, 4(2), 244-264. doi: 10.1080/2159676x.2012.685100.
- Burke, S. M., & Utley, A. (2013). Climbing towards recovery: Investigating physically injured combat veterans' psychosocial response to scaling Mt. Kilimanjaro. *Disability and Rehabilitation*, 35(9), 732-739. Doi: 10.3109/09638288.2012.707743.
- Caddick, N., Phoenix, C., & Smith, B. (2015). Collective stories and well-being: Using a dialogical narrative approach to understand peer relationships among combat veterans

experiencing post-traumatic stress disorder. *Journal of Health Psychology*, 20(3), 286-299.

doi: 10.1177/1359105314566612.

Caddick, N., & Smith, B. (2014). The impact of sport and physical activity on the well-being of combat veterans: A systematic review. *Psychology of Sport and Exercise*, 15, 9-18. doi: 10.1016/j.psychsport.2013.09.011.

Caddick, N., Smith, B., & Phoenix, C. (2015). The effects of surging and the natural environment on the well-being of combat veterans. *Qualitative Health Research*, 25(1), 9-18. doi: 10.1177/1049732314549477.

Carron, A. V., Brawley, L. R., & Widmeyer, W. N. (1998). The measurement of cohesiveness in sport groups. In J. L. Duda (Ed.), *Advances in Sport and Exercise Psychology Measurement* (pp. 213-216). Morgantown, W. V.: Fitness Information Technology.

Caspersen, C. J., Powell, K. E., & Christenson, G. M. Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Reports*, 100(2), 126-131.

Chivers, S. (2009). Disabled veterans in the Americas: Canadians "Soldier On" after Afghanistan – Operation Enduring Freedom and the Canadian Mission. *Canadian Review of American Studies*, 39(3), 321-342.

Douglas, K., & Carless, D. (2015). Finding a counter story at an inclusive, adapted sport and adventurous training course for injured, sick, and wounded soldiers: Drawn-in drawn-out. *Qualitative Inquiry*, 21(5), 454-466. doi: 10.1177/1077800414566687.

Embuldeniya, G., Veinot, P., Bell, E., Bell, M., Nyhof-Young, J., Sale, J. E., & Britten, N. (2013). The experience and impact of chronic disease peer support interventions: A qualitative synthesis. *Patient Education and Counseling*, 92(1), 3-12.

- Falcão, W. R., Bloom, G. A. & Loughhead, T. M. (2015). Coaches' perceptions of team cohesion in Paralympic sports. *Adapted Physical Activity Quarterly*, 32, 206-222. doi: 10.1123/APAQ.2014-0122.
- Green, S. (2013) "*I didn't even know if my life was worth fighting for*": *An exploration of the restorative power of adaptive sport for traumatically injured British military personnel* (Unpublished PhD Thesis). Coventry: Coventry University.
- Hammel, J., Magasi, S., Heinemann, A., Whiteneck, G., Bogner, J., & Rodriguez, E. (2008). What does participation mean? An insider perspective from people with disabilities. *Disability and Rehabilitation*, 30(19), 1445-1460. doi: 10.1080/09638280701625534.
- Hanna, P. (2012). Using internet technologies (such as Skype) as a research medium: A research note. *Qualitative Research*, 12(2), 239-242. doi: 10.1177/1468794111426607.
- Imms, C., & Granlund, M. (2014). Participation: Are we there yet? *Australian Occupational Therapy Journal*, 61, 291-292. doi: 10.1111/1440-1630.12166.
- Invictus Games. (2014). Retrieved from <http://invictusgames.org/the-invictus-story/>.
- Jackson, S. (2013). The creation of the Battle Back Centre, Lilleshall: Helping wounded, injured & sick service men and women to recover. *Journal of the Royal Naval Medical Service*, 99(2), 64-66.
- Letts, L., Martin Ginis, K. A., Faulkner, G., Colquhoun, H., Levac, D., & Gorczynski, P. (2011). Preferred methods and messengers for delivering physical activity information to people with spinal cord injury: A focus group study. *Rehabilitation Psychology*, 56(2), 128-137. doi: 10.1037/a0023624
- Littman, A. J., Boyko, E. J., Thompson, M. L., Haselkora, J. K., Sangeorzan, B. J., & Arterburn, D. E. (2014). Physical activity barriers and enablers in older Veterans with lower-limb

amputation. *Journal of Rehabilitation Research and Development*, 51(6), 895-906. doi:
10.1682/JRRD.2013/06/0152.

Martin Ginis, K. A., Evans, M. B., Mortenson, W. B., & Noreau, L. M. (2016). Broadening the
conceptualization of 'participation' of persons with physical disabilities: A configurative
review and recommendations. *Archives of Physical Medicine and Rehabilitation*. doi:
10.1016/j.apmr.2016.04.

Martin Ginis, K. A., Ma, J. K., Latimer-Cheung, A. E., & Rimmer, J. W. (2016). A systematic
review of review articles addressing factors related to physical activity participation among
children and adults with physical disabilities. *Health Psychology Reviews*.

McMaster, S., Culver, D., & Werthner, P. (2012). Coaches of athletes with a physical disability:
A look at their learning experiences. *Qualitative Research in Sport, Exercise, and Health*,
4(2), 226-243. doi: 10.1080/2159676X.2012.686060

Moll, S. E., Gewurtz, R. E., Krupa, T. M., Law, M. C., Larivière, & Levasseur, M. (2015). "Do-
Live-Well": A Canadian framework for promoting occupation, health, and well-being.
Canadian Journal of Occupational Therapy, 82(1), 9-23. doi: 10.1177/0008417414545981.

Munroe, C. (2014). Beyond health: The meaning of recreation participation for injured service
members. (Unpublished Master's Thesis). Clemson: Clemson University.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks,
CA: Sage.

Reeve, D. (2004). Psycho-emotional dimensions of disability and the social model. In C. Barnes
& G. Mercer (Eds.), *Implementing the social model of disability: Theory and research* (pp.
83-100). Leeds, UK: The Disability Press.

- Reiber, G. E., McFarland, L. V., Hubbard, S., Maynard, C., Blough, D. K., Gambel, J. M., & Smith, D. G. (2010). Service members and veterans with major traumatic limb loss from Vietnam War and OIF/OEF conflicts: Survey methods, participants, and summary findings. *Journal of Rehabilitation Research & Development*, 47(4). 275-298. doi: 10.1682/JRRD.2010.01.0009.
- Resnik, A. J., & Allen, S. M. (2007). Using international classification of functioning, disability, and health to understand challenges in community reintegration of injured veterans. *Journal of Rehabilitation Research & Development*, 44, 991-1006.
- Scott, S. (2004). Researching shyness: A contradiction in terms? *Qualitative Research*, 4, 91-105.
- Shirazipour, C. H., & Latimer-Cheung, A. E. (2016). Exploring the parasport pathways of military veterans with a physical disability. *Journal of Sport & Exercise Psychology*, 38(S1), S255.
- Shuy, R. W. (2002). In-person versus telephone interviewing. In J. Gubrium & J. Holstien (Eds.), *Handbook of Interview* (pp. 537-555). Thousand Oaks, CA: Sage.
- Sparkes, A. C., & Smith, B. (2014). *Qualitative research methods in sport, exercise and health: From process to product*. New York, NY: Routledge.
- Sturges, J. E., & Hanrahan, K. J. (2004). Comparing telephone and face-to-face qualitative interviewing: A research note. *Qualitative Research*, 4(1), 107-118.
- Thomas, C. (1999). *Female forms: Experiencing and understanding disability*. Oxfordshire, UK: Open University Press.
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837-851. doi: 10.1177/1077800410383121.

- 818 Trier-Bieniek, A. (2012). Framing the telephone interview as a participant-centred tool for
819 qualitative research: A methodological discussion. *Qualitative Research*, 12(6), 630-644. doi:
820 10.1177/1468794112439005.
- 821 Wu, S. K., & Williams, T. (2001). Factors influencing sport participation among athletes with
822 spinal cord injury. *Medicine & Science in Sports & Exercise*, 33(2), 177-182.
- 823 Yano, E. M., Hayes, P., Wright, S., Schnurr, P. P., Lipson, L., Bean-Mayberry, B., &
824 Washington, D. L. (2010). Integration of women veterans into VA quality improvement
825 research efforts: What researchers need to know. *Journal of General Internal Medicine*,
826 25(S1), 56-61. Doi: 10.1007/s11606-009-116-4.

QUALITY PARTICIPATION FOR VETERANS WITH A DISABILITY

Table 1.

Demographic information

Name	Country	Gender	Age	Years since injury	Injury Cause	Status during Injury	Injury	Type of PA Participation
Matthew	UK	Male	31	3	Blast injury	Active duty	SCI; Mild TBI	Competitive
Paul	UK	Male	33	8	Blast injury	Active duty	Right leg above knee amputation	Physical Challenge
Hugh	UK	Male	33	3	Blast injury	Active duty	Double lower leg amputation; shoulder nerve damage	Competitive
Louis	UK	Male	39	15	Sports injury	Active duty	Double ankle injury	Recreational & Competitive
Alan	UK	Male	54	21	Blast injury	Active duty	Right leg above knee amputation	Competitive
Judy	UK	Female	50	15	Training injury	Active duty	Shoulder injury; MS	Competitive
Richard	UK	Male	31	7	Blast injury	Active duty	Left leg below knee amputation; Missing finger on hand	Competitive & Physical challenge
Patricia	UK	Female	65	35	Sports injury	Active duty	SCI	Recreational & Competitive
Henry	UK	Male	30	9	Blast injury	Active duty	Right leg above knee amputation	Competitive
Arnold	USA	Male	30	3	Blast injury	Active duty	Left leg below knee amputation	Recreational
Ben	USA	Male	47	26	Fall	Veteran	SCI	Recreational
Reggie	USA	Male	68	49	Fall	Active	Left arm above elbow amputation	Recreational

QUALITY PARTICIPATION FOR VETERANS WITH A DISABILITY

Bradley	USA	Male	61	4	Blast injury ^a	duty Veteran	Double above knee amputation; Burns to 60% of body	Recreational
Danny	USA	Male	47	29	Fall	Veteran	SCI	Competitive
Tom	USA	Male	53	8	Motorcycle accident	Veteran	SCI	Competitive
John	Canada	Male	33	6	Blast injury	Active duty	SCI	Competitive
Celeste	Canada	Female	45	26	Training injury	Active duty	SCI	Competitive
William	Canada	Male	48	17	Fall	Active duty	SCI; PTSD; Knee Injury	Recreational

Note. All names are pseudonyms assigned to participants. PA: Physical activity; UK: United Kingdom; USA: United States of

America; MS: Multiple Sclerosis; PTSD: Post-traumatic Stress Disorder; SCI: Spinal Cord Injury; TBI: Traumatic Brain Injury.

Participants whose participation is labeled as “recreational” are those who participate in organized PA programs. The frequency of participation of recreational participants varied based on location and availability of programming, and could include weekly participation or participation in programs several times a year. Competitive participants included experience at local, regional, national, and international levels of competition. If labeled as competitive, participants were involved in PA competitions or training several times a week or every week either during their season or all year. Participants labeled as participating in physical challenges took part in one to three physical challenges a year, with additional training that varied in frequency throughout the year. Participation frequency could vary based on injury and/or complications related to the physical disability. ^a Participant experienced blast injury as a veteran, as he had volunteered to return to a conflict zone through a civilian employment opportunity.

QUALITY PARTICIPATION FOR VETERANS WITH A DISABILITY

Table 2.

Quotes for the overarching theme “conditions enabling access to a quality experience”

Themes	First-level sub-themes	Second-level sub-themes	Supporting quote
Physical environment	Accessibility	The built environment	“I think I’m thinking more along the lines of a disabled person now rather than an able person, where if you turn up at a venue where you’re going to be playing the sport you instantly look for access needs. Are there going to be disabled toilets? Disabled showers? (...) Sometimes you’re more concentrating on those factors rather than the game that you’ve got coming up or who you’re playing against and whether you can beat them. Whereas you’re thinking more about: Where can I leave my chair? Where can I leave my stud? What do I do if I need the bathroom half way through?” (Hugh)
		Practicality of the environment	“They build a facility and they’ll build one cubicle for disabled and six for able-bodied because the population ration would suggest you only need one disabled toilet. (...) The long-term view of these people is wrong because if you’ve got two wheelchair basketball teams competing you’ve got 24 disabled people there in wheelchairs, and you’ve got one disabled toilet and shower so that’s not ideal. That, to a lot of disabled people, isn’t good because it makes them not want to – they’ll say “Oh, I’m not going to bother having a shower. I’ll wait and I’ll drive three hours and get home and have a shower.” That’s not right.” (Alan)
	Geography	Central location	“I’m two and a half hours away. (...) There’s nobody out here who can develop a plan for a cyclist or someone who is on a recumbent bike.” (William)
		The outdoors	“There’s the risk. You’re not in charge. You need to be calculated but you’re not in charge because a tree can fall in your way at any given time and that’s you! So you need to be calculated and careful. It’s precision on the edge of serious pain.” (Paul)

QUALITY PARTICIPATION FOR VETERANS WITH A DISABILITY

Social environment	Role of family and friends	n/a	“A lot of marriages or relationships will break down when somebody gets severely injured. (...) It can fracture those relationships. So by acknowledging the existence of the rest of the family as part of the team, I think that really helps keep those numbers a little bit on the better side.” (Arnold)
	The general public’s response to injury	n/a	“There’s no sympathy there. (...) When I go swimming, for instance, the looks you get are unbelievable. (...) You hop down the side of the pool, you jump into the pool, and they think “Oooh, that guy hasn’t got a leg!” (Alan)
Program structure	Requirements for coaches or instructors to promote participation and safety	Coaching knowledge	“You have to have people that have a clue. If you just hire teenagers or college students that have not been around wounded warriors, the atmosphere and relationships are going to be very poor because they don’t know anything about you. They don’t know anything about IEDs. They’re not familiar with blast injuries. They’re going to just irritate you and ask really really insensitive questions. They’re not going to be able to even assist you with the adaptive sports because they don’t have a clue what’s wrong with you. (...) The ideal is training. (...) I’ve had people that just stand there, like a deer in the headlights when you’re struggling, and they don’t know what to do.” (Bradley)
		Tough	“I don’t need somebody to hold my hand. Just direct me in what I’m supposed to do and I’ll do it. That’s the military thing too is just it comes from the top. The sergeant tells you, your boss tells you to do something and it’s ok. Give me the guidelines and let’s do it.” (Tom)
		Not limiting participant based on disability	“She’s very knowledgeable. She’s a recognized rower, trainer, coach. However, she’s dealing with a disabled guy and so she takes a step back instead of having that sharp tongue that she should have like “Come on! Dig deep! Pull harder! Ten more!” That doesn’t exist.” (Paul)
		Understanding	“Someone that knows me and knows what I need to take me to the next level and the next level, and to pick me up when things haven’t gone well.” (Hugh)

QUALITY PARTICIPATION FOR VETERANS WITH A DISABILITY

General programmatic barriers	Climate	“I suffer with the cold – my extremities because of nerve damage I’ve not got a great deal of temperature control. Hot sunny environments make me feel a lot better. (...) I’m a lot more relaxed and enjoy the time there which allowed me to train harder.” (Matthew)
	Safety	“The experience was positive because safety was at the forefront of everything. They don’t want anyone to get injured or killed and no one was injured or killed so that’s as good as it gets.” (Bradley)
	Program and participant resources (e.g. finances, equipment, accommodation)	“The way a lot work is the first time they pay for it - it’s kind of set up for introduction I guess and so after that they won’t pay for it. So it kind of takes it out a bit. I can’t do it anymore. So a lot of them come and go. They do it for free the first time and then I got to let it go cause I can’t pay for it.” (Danny)

QUALITY SPORT FOR VETERANS WITH A DISABILITY

Highlights

- Quality elements of participation are identified, as well as methods for fostering elements
- Quality elements include group cohesion, challenge, having a role, and independence and choice
- Certain conditions, such as environmental and program features, enable access to quality experiences