

Swim or Sink in the Graduate School: Disability and Outdoor Leisure Activities

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Abstract

Outdoor leisure activities (OLAs) are beneficial and the study of graduate students with disabilities remains under-researched in this area. This is happening when enrollment, dropout rates, and late degree completion of students with disabilities in graduate programs in American universities is on the rise. This exploratory case study approach uses participatory action research framed in photovoice to examine the authors' graduate school and outdoor leisure activity experiences. The authors engaged in collaborative self-examinations of their graduate school period to identify the impact of OLAs on their wellbeing. Three themes emerged from the study: countering the narrative of disability deficit through the collage, building of inclusive beneficial OLAs, and normalized life with assistive technology. It is important to include graduate students with disabilities in addressing barriers to OLAs in order to promote their academic performance and welfare.

Keywords: disability, outdoor leisure activities, accessibility

Leisure, recreation, and outdoor activities are beneficial to people with and without disabilities (Blick et al., 2015; Coon et al., 2011; Zabriskie et al., 2005; Zhang et al., 2017). Individuals involved in outdoor leisure activities (OLAs) demonstrate improved developmental and psychosocial qualities in the areas of social skills, social adjustment, self-determination, self-esteem, self-awareness, self-concept, and reciprocal relationships (McAvoy, 2001; McAvoy et al., 2006). Persons with disabilities experience improved self-concept, self-confidence, communication, interactions, and relationships with people with and without disabilities including their families (Burns et al., 2013; Hough & Paisley, 2008; West & Merriam, 2009). However, disability frequently leaves people with little opportunity for leisure and recreation due to personal limitations, natural or built barriers, and negative cultural attitudes (Burns et al., 2009; James et al., 2018). Barriers impede access to opportunities that come with mobility and communication abilities, and people with disabilities are likely to have limitations in functioning in natural environments (Zhang et al., 2017). Further, people with disabilities are seldom given the freedom to choose a pastime or given opportunities to participate in OLAs (McAvoy, 2001). This paper specifically focuses on graduate students with and without disabilities to determine how they may lack similar opportunities.

Outdoor recreation has many benefits (e.g., improved mood or cardiovascular health), and new studies are focusing on ways to create opportunities for participation in

OLAs to improve the wellbeing of people with disabilities (Barclay et al., 2016; Burns et al., 2009; Burns et al., 2013; Coon et al., 2011; Franco et al., 2015; James et al., 2018; Wilson & Christensen, 2012). Still, to the best of our knowledge, no research has focused on the constraints and benefits of OLAs for graduate students from the students' perspective. There is no clear understanding on how, and to what extent, disabilities hinder participation in OLAs and their benefits to graduate students. We address this gap by examining graduate students' with and without disabilities participation in OLAs. Using ourselves as subjects, we revisit our graduate school period to examine the locus of OLAs within our academic lives and to elucidate the challenges and benefits of interacting with nature.

The purpose of this study was to show how OLAs can improve the quality of life of both types of graduate students and reduce dropout rates. The guiding research question are the following: *What are the experiences of two graduate students with and without disabilities involved in OLAs and their perceptions of OLAs' impact on their academic wellbeing?* We hypothesized that participating in OLAs increased healthy living, improved academic performance, and supported the completion of graduate programs for participants. This study is important because its findings can improve the quality of life of United States (U.S.) and international college students especially those with disabilities, an increasing demographic in the higher education population in the U.S. (Council of Graduate Schools-CGS, 2004). It also provides knowledge of lived experiences and story of an international graduate student with disability and his African American colleague and their experience during an OLA. Next, we review the literature on the benefits of college education and of OLAs.

Literature Review

Outdoor Leisure Activities

The outdoors is “a space that promotes well-being and resilience by providing an opportunity to test physical and mental stamina through a variety of recreational pursuits in what can be risky environments” (Burns et al., 2013, p. 1060). Open spaces in nature are uniquely shaped to challenge and help individuals grow and develop. Studies reveal that leisure and recreation benefit individuals and society (Blick et al., 2015; Coon et al., 2011; Wilson & Christensen, 2012; Zabriskie et al., 2005; Zhang et al., 2017). Natural environments offer a lot of affordances to people with and without disabilities (Burns et al., 2009) that develop their personal qualities such as self-awareness and self-esteem (Devine, 2004; McAvoy, 2001; McAvoy et al., 2006). The woods are spaces where people explore nature and socialize (Finlay et al., 2015; Jiang, 2014) and those involved in leisure and recreation experience positive health impacts (Nimrod et al., 2012). Better quality of life (Burns et al., 2009; Mitchell & Popham, 2008) include improved cognitive abilities, communication, friendship and support (O'Brien, 2005), self-discipline, and personal satisfaction (Pothukuchi & Bickes, 2001). “Outdoor recreation serves as a venue for combining the benefits of physical activity and/or social interaction with the positive impacts of nature” (Wilson & Christensen, 2012, p. 488). As studies confirm their benefits, OLAs are increasingly becoming a means to provide services (e.g., social and

therapeutic services) to people with disabilities in an inclusive environment (Burns et al., 2009; West & Merriam, 2009).

While the woods provide many opportunities to individuals and communities, people with disabilities are limited by environmental barriers and personal qualities (Burns et al., 2013; Dorsch et al., 2016; Zabriskie et al., 2005). These barriers may be cultural (e.g., stigma), physical (e.g., curbs or boulders), social (e.g., limited friends or unsupportive parents), political (e.g., unenforceable disability policies), economic (e.g., limited resources or budget), personal (e.g., chronic pain), or systemic (e.g., ableism and poverty). Natural barriers (e.g., rocky hills, slippery river banks), built or infrastructural barriers (e.g., roads with curbs, transportation; Barclay et al., 2016; Franco et al., 2015; Johnson et al., 2001), cultural barriers (e.g., biased attitude, or fear of people with disabilities; Burns et al., 2013; Wilhite & Keller, 1992), and personal barriers (e.g., lack of self-motivation, anxiety, lack of leisure partners; Ross, 1993; Sparrow & Mayne, 1990) to OLAs (Bedini, 2000; James et al., 2018; Zhang et al., 2017) predispose people with disabilities to health problems (James et al., 2018; Moussavi et al., 2007). Individuals with disabilities that restrict their mobility are likely to lead sedentary lives and to have a low quality of life—they are vulnerable to exclusion, isolation, and emergent health issues such as obesity, depression, and stress (Stigsdotter & Ekholm, 2017; Williams et al., 2004). Besides personal health issues (i.e., impairments), cultural practices (e.g., disability myths) make people with disabilities vulnerable to exclusion from OLAs (Fullagar & Owler, 1998; McAvoy, 2001; Oliver, 2009).

Studies have shown that people with and without disabilities share similar outdoor experiences and benefits (McAvoy et al., 2006; McCormick, 2001). However, misconceptions that people with disabilities are not inclined to participate in OLAs, that they dislike activities undertaken by nondisabled people, or that they are unproductive and over-dependent on nondisabled people abound (McAvoy, 2001). In Sparrow and Mayne's (1990) study of people aged 18–35 with intellectual disabilities found decreased participation in home and community leisure activities. While Wilhite and Keller's (1992) study on adults with developmental difficulties found self-consciousness to be a huge impediment to participating in OLAs.

Barriers to OLAs are not just internally or socially created, but external legal barriers further impede OLA participation by individuals with disabilities. For instance, until 1976, the 1867 “Ugly Law” in the U.S. prohibited people with deformities from occupying public spaces to protect the nondisabled population (Osgood, 2008; Smithsonian National Museum of American History, n.d.). Effort to improve the wellbeing of people with disabilities in the U.S. is historical (Osgood, 2008). For example, in the 1920s when poliomyelitis ravaged the country, the U.S. President Franklin D. Roosevelt created a recreational resort for people with disabilities to participate in various OLAs (FDR and polio, n.d.). Recent legal attempts to address exclusionary practices have involved enacting legislations (e.g., the Americans with Disabilities Act 1990, Section 504 of the Rehabilitation Act 1973, the Individuals with Disabilities Improvement Education Act 1990) that prohibit disability-based discrimination. Still, the status quo continues to push people with disabilities to the margins (Oliver, 2009).

Other efforts in the area of inclusive OLAs have focused on the use of assistive technology (ATs) (Crockett et al., 2019; Moser, 2006) to assist people with disabilities in accessing natural environments (James et al., 2018). There are different types of technology used by people with disabilities. In general, low technology are cheaper and easier to use than high technology. Both ATs mitigate environmental forces and personal qualities and, in the process, enhance functionality that enable inclusion of people with different abilities to participate in different leisure and recreation programs (Hammel et al., 2015; James et al., 2018).

Exclusion of Graduate Students with Disabilities

According National Center for Science and Engineering Statistics (2019) college education is the key to a better life; it leads to equal opportunities and social mobility, which may explain the rise in doctorate recipients in the U.S. from 8,773 in 1958 to 55,195 in 2018. In 2018, 4,156 (7.5%) of the 55,195 doctorate recipients reported one or more functional limitations considering the broad field of study, sex, and citizenship status (CGS, 2004). Still, a college education remains difficult to achieve to people with disabilities (Shapiro et al., 2018), as the current 7.5% of doctorate recipients with special educational needs is far below the average 11% of U.S. population with disabilities age 18-64 (Kraus et al., 2018). Usually learners with disabilities experience academic, social, attitudinal, and infrastructural barriers that hinder their successful transition from high school to college and undergraduate completion (Ressa, 2016). No statistical data on graduate students with disabilities dropout rates are available; however, we presume that it is high, considering that approximately 43% of doctoral students in the U.S. drop out of their graduate programs (CGS, 2004). Personal, family, institutional, financial, social, physical, cultural, and linguistic factors contribute to the high rates of doctoral students who drop out. Personal factors (e.g., poverty, the allure of employment, financial burdens, ill health due to depression and stress) and institutional factors (e.g., disability-based biased, lack of support or appropriate mentorship, attending less established graduate schools) (CGS, 2004; McFarland et al., 2019; Shapiro et al., 2018) make graduate school very challenging for all students. Left unmitigated, these factors cause behavioral and emotional struggles that may exacerbate academic challenges and lead to dropout or late graduation.

Dropout rates hurt individuals, families, communities, and countries. Generally, students have less access to economic opportunities, are burdened with student debt, and those that default on their loan payments further predispose themselves to a circle of poverty (Shapiro et al., 2018). Two broad categories of students in the graduate program are traditional and nontraditional. A traditional student may concurrently pursue undergraduate and master's degree through accelerated program or may transition directly into the masters and doctoral programs upon completion of the undergraduate program. Though not always, a nontraditional student usually has a master's degree, a job or job opportunities, and some fiscal stability. Some graduate students have jobs or other sources of income as many graduate programs have assistantships and scholarship to support their finances; however, some students transition from undergraduate programs into master's programs (Martinez, 2018). Whereas over 50% of undergraduate and

master's degree graduates secure employment upon graduation, some remain unemployed for a while (National Association of College Employers-NACE, 2018). According to the 2018 data from NACE, master's candidates employed full time ranges between 69.5 to 77.4%.

Success of graduate students with and without disabilities (i.e., students in master's and doctoral programs) is dependent upon a positive work–life balance, including engagement in OLAs. Unfortunately, college students with disabilities have largely gone unrecognized within the realm of OLAs. To our knowledge, there is no study on graduate students with disabilities despite evidence of the health benefits of OLAs for people with and without disabilities. Involvement in OLAs leads to increased social network, improved communication and cognitive abilities, and enhanced self-discipline. By and large, healthy students are more likely to focus on their studies than sickly students. Then, understanding the impact of OLAs on the wellbeing of both graduate students with and without disabilities could be a mechanism to reducing dropout rates, ensuring the successful completion of graduate programs, and facilitating transitions to careers.

Methods

Case Study using Participatory Action Research

This phenomenological research used exploratory case study as an approach to describe the experiences of two graduate students' experiences in OLA. Nested in participatory action research (PAR) the participants/researchers seek to understand the interaction between disability and nature. As such using PAR privileges knowledge of the researcher and the subjects as equal partners in understanding a phenomenon (Swantz, 2008). In designing this PAR study there is a process for developing the research and the authors considered the following steps by individual self-reflection and communal decision making when thinking about their outdoor experience. They observed and interacted in the experience together with the action taken based on responses in their environment as shared. Upon conclusion of the experience, they reflected on the action within the experience with the hopes of completing the experience again in the future (Kemmis & McTaggart, 2005). The process identified is the cycle of participatory action research in this study.

The authors used a retrospective photovoice methodology to examine the impact of OLAs on their graduate schooling (Creswell, 2012; Hammersley & Atkinson, 1983). Photovoice is a qualitative participatory research method that blends photography and stories about images to examine intricate community matters; this allows researchers to understand and address the cultural, social, political, economic, physical, and linguistic issues and needs of participants and their community (Nowell et al., 2006; Palibroda et al., 2009; Pink, 2001). Photovoice 1) enables people to record and reflect upon their community's strengths and concerns, 2) promotes critical dialogue and knowledge about important community issues through large and small group discussions about photographs, and 3) reaches policymakers so they can institute policies that improves the welfare of society (Wang & Burris, 1997).

Photovoice involves images and personal stories, and because of the narratology of the visuals, participants have a broader vocabulary with which to express knowledge of

circumstances and have a better way of finding meaning in situations and therefore understanding their needs (Wang & Burris, 1997). Since photovoice involves the identification, classification, and discussion of images, researchers are likely to gain multiple perspectives of issues that may lead to a holistic understanding of the phenomenon and allow the institutionalization of broad or targeted solutions (Darbyshire et al., 2005; Nowell et al., 2006). Photovoice also provides insiders' perspectives, which are often quite different from the dominant framework. Insiders are likely to focus on valued matters rather than dwell on outsider researchers' needs and knowledge (Ruby, 1991; Sontag, 1973; Wang & Burris, 1997).

As Wang and Burris (1997) cautions when using photovoice, representation and personal judgement may cloud perspective of the experience. Determining what, when, who, and where to take the photos creates challenges in determining inclusion of all perspectives in the experience. It also risks reproducing class stratification through the control of information. Moreover, researchers may still wrestle with 1) sorting and analyzing a huge data volume, 2) engaging decision-makers in the research process, and 3) ensuring genuine depictions of community matters (Wang & Burris, 1997). Yet, in this study, the researchers shared responsibility in selection of photos prior to the trip (from this and other experiences) and came to a consensus and permission to take photos during the experience as they determined as a part of shared communal agreement. As such phenomenological approach was used to target the personalized experiences of the authors in their environment throughout the trip using the photos as the descriptors of the experience. Moustakas (1994) describes phenomenology as an approach to qualitative research that describes the meaning of a lived experience of a phenomenon for several individuals, which in this case in the experience of the graduate students (the authors) during their camping experience. In further elaboration of phenomenology within photovoice, Plunkett et al. (2013) suggest that one way to create authenticity for phenomenological approach is to create opportunities for participants to provide data that is most meaningful to them. Doing this through photovoice produces perspectives from those experiencing the phenomenon as they take photographs of what is meaningful to them and in this respect, they control the nature of the data and can share the meaning behind the photos they took as interpreted by their lived experience thus fulfilling the tenets of phenomenology.

Participants

This paper is a co-written as an exploratory case study using participant action research design. The subjects in this shared experience are described as the following: Simba has an acquired physical disability and because of his varied physical strengths, he uses different types of mobility devices (wheelchair, manual and electric; crutches and braces) for various environments based on his needs. Simba grew up in a rural village of Kenya where he participated in nature and life skills (i.e., brush cutting, firewood collection, and cooking over a fire). Due to his academic successes he progressed through school to become a teacher, scholar student, and successful recipient of a Ford Foundation scholarship for a master's degree in

special education in the U.S. Simba has been involved in various adaptive sports as a student and adaptive physical education teacher prior to coming to U.S.

Daniel is an African American and his area of study is Physical Activity and Adapted Physical Education. He does not have a known disability and has professional experiences as a former campcraft coordinator (YMCA summer camp), extensive Outdoor Education experiences (i.e., instructor and assistant director), a high school special education/physical education teacher, and outdoor enthusiast. What is of particular note is that in his role as a High School teacher and throughout his career, he has been a supporter and advocate for individuals with disabilities becoming an Adapted Swim Instructor (American Red Cross), teaching lesson to persons with disability, and working in his graduate program as a mentor/supervisor for undergraduate students in the Adapted Physical Activity Lab for children at the University.

Setting

The two met in class at the Large Midwestern University and the connection point occurred when Daniel asked Simba what physical activity experiences he had participated in at the University. After discussions of his limited experience the two determined a partnership/kinship to assist each other in participation in physical activity and graduate program. The reflection of the lived experiences in graduate school at a Carnegie R1 a large university in the Midwestern U.S. provides documentation of Simba who, like all people with disabilities, lives in a community whose norms influence who belongs and Daniel who has a family (Spouse and children) and interacts with them daily. The work here entwines empirical studies on network, allyship, disability, and OLAs, and having an insider and outsider information of each person's respective graduate program to co-produce knowledge. As insider researchers there are possibilities of bias that may affect the integrity of the research (Dorsh et al., 2016). To ensure its validity and reliability, there is an intentionally balanced insiders' and outsiders' perspective during data collection and analysis (Dorsch et al., 2016). This study is the result of the researchers' interest in addressing barriers to graduate programs for students especially those with disabilities in the hopes that universities will find solutions to the problems they face (Dolmage, 2017).

Data Collection

Body mapping allows an individual to share thoughts, feelings, and experiences about oneself relative to the environment. A collage is a combination of various things such as pictures. A narrative is a chronicle of experiences. Therefore, narrative of collage is pieces of pictures that tell a story of phenomena based on the understanding of the involved individuals. This study used imaginative ways to collect data (i.e., body mapping) (Lu & Yuen, 2012; Yuen, 2016) and to analyze and report the findings (narrative of collage). Photovoice is a creative form of PAR (Schleien et al., 2013). In this phenomenological approach the authors seek to describe their experiences through pictures taken throughout their weekend in the woods. A discussion of the phenomenon or OLA experience required the researchers to select photos taken during the

camping adventure. Simba had taken over 100 photos, while Daniel had taken over 75 photos. Thus data collection involved Simba and Daniel complete the following steps: 1) taking pictures of the phenomenon, 2) sharing the pictures with each other, 3) selecting salient pictures of the phenomenon individually, 4) discussing key photographs of the phenomenon, 5) analyzing pictures of the phenomenon in a together (group) setting, 6) describing the phenomenon together (group) setting, and 7) sharing information about the phenomenon with agents of change such as educators or university administrators (Nykiforuk et al., 2011; Wang & Burris, 1997). Both Simba and Daniel took pictures of moments of OLAs. As discussed previously, the researchers shared responsibility in selection of photos and came to a consensus on which photos would be used during the study by shared communal agreement. The selection of photos contextualizes and enables storytelling about the phenomenon and involves participants' voice, their individual and collective experiences.

Data Analysis

Using photovoice requires a three-stage analytic process: 1) selection (classifying pictures that most accurately reflect the phenomenon); 2) contextualization (narrating the purpose of the photographs); and 3) codification (identifying, organizing, and interpreting the issues, themes, or theories that emerge from the stories about the pictures)—codification allows for meaning making regarding the images or phenomenon (Wang & Burris, 1997, p. 370). Aligning our work with PAR allowed the opportunity for reflection and evaluation surrounding the photos selected using the SHOWED analytic tool (Shaffer, 1983). The tool provides framing questions for the researchers to discuss and analyze their photos. They include: a) What do you *See* here? b) What is really *Happening* here? c) How does this relate to *Our* lives? d) Why does this problem, concern, or strength *Exist*? e) What can we *Do* about it?

Our task here was to use this tool to shape what pictures provided meaning to our experiences. After sharing our pictures with each other camping in the woods, we then discussed each image in depth. Of the 175 photos taken between the two of us, we shared our own experiences—ones we believed reflected and captured our OLAs and camping spirit and came to a consensus of 9 photos that best captured our experience. We analyzed the data (photo data and field notes) thematically using *Nvivo* software to understand the interactions of disability and nature—and the collage is illustrative of the moments of OLAs in our experience as themes. Van Manen (1997) posits that by collaboratively discussing the data, central themes are identified and focus of the phenomenon can be pursued. In a combined phenomenology and photovoice study, data analysis begins at the onset of data collection and continues for the duration of the research (Plunket, et. al., 2013).

Findings

The descriptions here are the combined narratives of Simba and Daniel's experience camping in the woods. They signify varied perspectives, but communal agreement on what occurred through the collage of photos.

A First and Different Experience

The authors' (Simba and Daniel) had several leisure and recreation opportunities in our graduate school, but this weekend camping in the woods was the first and different. We did not comprehensively understand the demands of graduate school until we were fully immersed in our education programs. Trying to finish master's (Simba) and doctoral (Daniel) education programs on time, relaxation and rejuvenation were critical to our productivity. Like many people in the U.S., taking time to return to nature by going camping fulfilled our need to disengage and relax. Daniel's family owned property in Upper Michigan, so we drove five hours from Ohio to return to nature after our spring semester had ended. As we embarked in the afternoon, the weather was perfect for camping. We drove for three hours, stopping to visit Daniel's family friend for an hour. We then drove for two more hours and arrived at the campsite at around nine p.m. when it was pitch black. We had to use the car's headlights to prepare the campground and start the fire to cook their food (see Figure 1 Picture #1).



Figure 1. Collage of a Weekend Trip. Collage of outdoor activities. Day 1, Photo 1: Simba lights the bonfire to cook a late dinner. Photo 2: Simba eats roasted chicken and ugali upon arrival at the campsite. Day 2, Photo 3: Simba crawls out of the tent in the early morning. Photo 4: Simba cuts firewood for a bonfire to make breakfast. Photo 5: Simba roasts chicken for lunch. Day 3, Photo 6: Simba and Daniel explore the pond. Photo 7: A wider nature shot. Photo 8: Daniel puts out the campfire before heading back to school. Photo 9: Simba is ready to get into Daniel's car for the journey back to school.

A Talking Collage

Day 1, in Picture 1, Daniel (not pictured) took the photo and continued unpacking the car of other necessities (e.g., drinking water) from the car parked a few feet away from the fire pit. Arriving at the property at dark, it was necessary to use the car's headlights to provide light and to set up camp. As you can see Simba is seated in his manual wheelchair is kindling the embers of the fire with a stick and getting ready to cook a late dinner. There is a pot at his feet for cooking ugali (a type of maize porridge made in East Africa). Also, around the bonfire are logs serving many purposes—seats, tables, candle holders, and a drying rack for a t-shirt. There is also storage for cooking materials—corn flour, cooking oil, and salt. Daniel is around the camp, laying out the utensils and equipment and tent and setting up other camp features, that is, the bathroom. The property was primitive and did not have any structures, running water, or bathrooms because tax rules prohibited property owners from building anything larger than a 10 ft x 10 ft structure. A tent was used, and a bathroom dug by digging a trench and placing a portable structure over it away from the main camp. This photo demonstrates Simba's independence and autonomy at the camp, while not pictured does he same for Daniel as he is working to set up other camp features. Daniel's and Simba had agreed to assist each other when asked or called upon as it allowed for each person to determine their own level of support. Daniel uses his camping background and skills with the help of Simba to set up camp.

Daniel took Picture 2 to capture Simba eating food on the trip and the nature of our camp on the first night. In the picture, Simba is seated in his wheelchair with a paper plate full of white ugali on his lap. In his right hand is a portion of ugali, while in his left hand he is holding and biting a piece of chicken. A shovel is leaning on the tree; on the left side of the picture lying on the ground are two plastic bags containing jugs of clean water for cooking, drinking, washing up, bathing, and washing our hands. The two five-gallon water containers were filled at the water station in town and we had to be conscientious about using our water so we would not have to go on extra water runs. After having dinner, food items were stored in the car to keep raccoons and rodents away. At 3 a.m., a chilly rain flooded our tent and Daniel woke up to dig a trench around the tent. When finished he and Simba rearranged the bedding to sleep more comfortably.

Day 2, Picture 3 Daniel left the tent early to move around and take pictures in nature, when he returned Simba was crawling out of the tent as seen in the photo at 9 a.m. While the evening rain may have been discouraging, Simba crawls out of the tent, smiling to the camera (Daniel) and getting ready to embark on the early-morning chores—clearing brush, cooking, and

exploring the woods. As noted from the photo, the tent is pitched well, with a rain fly to keep the rain off the tent with strings pegged equidistant from each other to the ground. The tent is erected on relatively flat cleared ground surrounded by trees to protect it from strong winds and rain with a trench dug around it and away from the base for good drainage. At the entrance to the tent are Simba's braces, crutches, and a black plastic bag he can sit on while putting on his braces. Simba decided to use his braces to exercise and reach tree canopies. Daniel had described his role in the morning is to get the fire going for breakfast. When camping there are no set rules for when things like breakfast happen, it happens when the group decides it needs to happen.

In Picture 4, Simba asked Daniel to take his picture. As seen in the photo Simba is seated in his wheelchair next to three big trees and surrounded by bushes and shrubs, happily smiling to the cameraman. A streak of sunlight lights up his face as seen in his t-shirt and shorts and places on a brace on his left leg. He has shoes on both feet. He is holding a piece of wood in his right hand and has his left hand raised in the air. There is a machete on his wheelchair for cutting the wood for the fire that needed to cook breakfast. Though not in this picture, Daniel stopped clearing brush in the same area as Simba, as it had been several years since the family last camped on the property. The camping area was overgrown with small saplings and grasses and needed to be cleared. Daniel had experience clearing brush and used a weed wacker to clear the brush while Simba assisted in this effort and also gathered wood for the fire the night.

In picture 5, Simba is holding a stick with a whole chicken on it, which he is cooking by placing it in the fire pit while sitting on his manual wheelchair for mobility and stability. The fire pit embers make it easier for Simba to prepare lunch from a safe distance. Also, in the vicinity are logs, firewood, a pot, the tent, a sock, and a machete sticking into the ground by its tip (for safety and easy picking). The fire is in a shady area, which allows for ongoing cooking activity without getting overheated. Though not in the picture, nearby Daniel is unpacking tools for clearing the ground after airing the bedding from the night prior rains.

Day 3 activities involved exploring the woods, packing, and preparing for the five-hour drive back to college. In picture 6, Simba and Daniel are on a day trip to explore the woods and hike to the Au Sable River near Cadillac, Michigan. Facing the camera while seated in his manual wheelchair, Simba flashes a victory sign with both hands; Daniel stands next to him holding his daypack in his hand. There are people behind us kayaking down the river. In this picture, both are in the frame because we used the selfie-mode on the camera to capture the photo.

Picture 7 was a photo snapped by Simba and shows the woods and the Au Sable River, both of which provide a great deal of nature and wildlife, including croaking frogs, fish, mosquitoes, black flies that buzzed and bit, birds flying around and singing in the trees. Although not fully captured in the picture as we walked in the woods was the fresh air; smell of the earthy aroma of the soil; the natural sounds of water, falling leaves, and cracking wood; while walking in and out of the trail where we saw glittering streaks of sunlight. We visited many surrounding areas along the river and campsite. Our activities were dictated by our interests, resources at

hand, and need to explore nature. For instance, we visited scenic places in the woods around the riverbank that were wheelchair accessible.

In picture 8, Simba snapped a photo of Daniel putting out the campfire at the end of our camping experience. He slowly pours water on the hot coals, which causes steam and ash to rise. He used the shovel to turn over the embers and coals to ascertain that they are extinguished so that no bush fire starts after we leave the woods. The putting out of the fire signified the end of the experience as the damping of the fire demonstrates the energy and stress that was relieved through our time in nature from our studies.

In picture 9, Daniel was asked to take Simba's photo as he is seated in his wheelchair and is smiling at the camera prior to leaving the camping experience. Simba, who does not own a car nor drives, is next to the open front passenger door of Daniel's car ready for the six hour car ride back to town.

We left the property at around 2 p.m. and drove through the woods on a dirt road for about 20 minutes before joining the main road to our State. Throughout our travel, we stopped three times for gas, snacks, and to use the bathroom. It took us another five hours to get to back to our town. Daniel dropped Simba off at the college at about 8 p.m. and then drove home to his family about five miles away from school.

Discussion

Three major themes emerged from the data: 1) Countering the narrative of disability deficit through the collage, 2) Building of the inclusive beneficial OLAs, and 3) Normalized life with assistive technology.

Countering the Narrative of Disability Deficit through the Collage

For centuries, images of people with disabilities have been intentionally skewed to objectify and invoke nightmarish feelings (e.g., freak shows—American Horror Story, Season 4 “Freak Show” or Barnum and Bailey's—featuring conjoined twins and people who were short, fat, armless, or legless) (Bogdan et al., 2012). The collage in Figure 1 depicts moments of life that counter the dominant narrative of disability as a deficient, miserable, and irksome experience. The storyline of Simba and Daniel acting on and being acted upon by the environment provides insider and outsider perspectives on inclusion. Our outdoor experiences are animated conversations about disability and nature. The active life in the settings as shown by items (e.g., water and food), equipment and tools (e.g., kitchenware, machete), and activities (e.g., cooking, eating, cutting firewood, clearing the ground, erecting the tent, organizing the space, using the bathroom, knowing our surroundings) enable readers to remotely interact, visualize, and feel our lives in nature. Also, the woods create an ambiance that invites readers to theorize about ability and disability and the environment. The collage is aesthetically pleasing and positively presents disability, showing the capabilities of people with disabilities when society accepts them. The images show a smiley, happy, energetic, and agentic Simba engaging in various activities, not experiencing feelings of sadness and disappointment because he may

not get the opportunity to experience outdoor camping. This portrayal of disability pride contrasts with the shame that is often associated with disability (Fialka, 2016; Goffman, 1963).

The collage's spoken and unspoken language of our OLAs challenge normative constructions of disability as a deficit and people with disabilities as aliens (Burns et al., 2009). The first-person descriptions of the sequenced images communicate our behaviors and feelings, generating various topics about the setting, activities, collaborations, friendship, education, tools, materials, processes, and adaptations. These are points of convergence and departure that prompt readers toward critical thinking and self-interrogation; they can investigate the happenings and make meaning out of our ability to adapt to this primitive setting; the influence that nature had on us and our ingenuity to adjust to life before, during, and after camping; agree or disagree with our experiences; make judgments about disability norms; understand situations of living with disability in a community that sometimes de-values those with impairments; and draw conclusions about human differences, qualities, and the possibilities for people with disabilities (Valle & Connor, 2011).

Building of the Inclusive Beneficial Outdoor Leisure Activities

The trip to the woods benefits Simba and Daniel. The tangible and intangible events in the woods (e.g., our interactions with the flies, mosquitoes, birds, falling leaves, and natural aromas) connected us with the universe and its mysteries. Outdoor leisure activities connect us to our environment and allow us to interrogate events; tailor our needs for the woods; develop self-control; find a sense of solace, balance, and peace; and feel rejuvenated. For us, the woods helped us acquire insight into our own character, reset our minds, and the physical, emotional, and intellectual freshness of being in nature made us creative and positive and focused during the camping period and after we got back to college. The serene and interactive safe atmosphere create spaces for inclusion, collaboration, and re-discovery. This safe atmosphere nurtured our relations, revitalized us, enhanced our cognitive prowess, and enabled us to refocus and continue in our academic destiny. It also helped us to develop and solidify a mutual friendship and relationship with nature and each other. We were able to rediscover our potential and humanity that we could not have done in urban and simulated natural settings. We negotiated spaces, our wants, our needs, and through dialogue, we found a balance with one another, striking agreements that worked for both of us in the time and space during the experience. For example, as seen in image 6, during the tour of the Au Sable River, the proximity of Simba and Daniel challenges notions that segregation of people with and without disabilities is inevitably good for the individuals and society. Also, our social distance and reciprocal relationship in private and public countered feelings of disability stigma. We also balanced our chores based on our abilities, as seen in image 4 when Simba collected firewood and image 8 when Daniel extinguished the fire pit and when he drove us back to college. We developed resilience, judiciously used our time and money, invested in our graduate studies, attained better grades leading to our current professorial positions and continued collaboration. Our successful OLAs

and collage challenge notions of disability, sympathy, and charity holding that disability is a passive or inactive human experience.

Previous studies show that natural environments offer a lot of affordances to people with and without disabilities (Burns et al., 2009) that develop self-determination, self-awareness, and self-esteem (Devine, 2004; McAvoy, 2001; McAvoy et al., 2006). Burns et al. (2009) conducted a study on the outdoor experiences with 31 participants with disabilities (mental health, multiple and complex needs, learning disability, visual impairment, sensory impairment, and physical impairment) and 15 assistants. Those with disabilities appreciated OLAs and reported that the woods provided spaces for “rest, recreation, recuperation, and revitalization,” creating a refuge away from city life (Burns et al., 2009, p. 412). The authors also found that OLAs enabled interactions and inclusion of participants with and without disabilities and also helped develop self-identity of those with disabilities. Besides, Burns et al. (2009) participants felt free, were actively involved in directing their lives, and experienced increased interactions, bonding, and networking among the group members. They considered their OLAs to be a political movement—a counteractivity to the dominant practices that have long excluded them from nature based on their impairment. They felt liberated and rejuvenated and were therefore unwilling to succumb to deficit ideologies.

Normalized Empowering Accommodations

Assistive Technology. Beside the culture of reciprocity, assistive technology (AT) facilitates the inclusion of people with disabilities in OLAs. Assistive technology enables interactions between Simba and the environment and between Simba and Daniel. The wheelchair enhances Simba’s functionality by supporting his body and making him mobile, so Simba can choose what, when, where, and how to participate. He manipulates his paths around the woods and assists with various tasks like tending the fire, cooking, and breaking down the tent. Other tools and equipment made this camping trip possible, comfortable, informative, and exciting, including the car, tents and blankets, a machete, kitchenware, lamps, and a camera. With these technologies, we accommodated one another’s needs, collaborated, and complemented each other’s abilities to tame the environment and make camping fun. For instance, Daniel cleared bushes and paths, which made wheeling and walking safe and efficient, normalizing our accommodations.

Assistive technology mitigates environmental factors and enables inclusion of people with disabilities in leisure and recreation (James et al., 2018; Moser, 2006). It bridges the gaps created by functionality and environmental conditions, empowering people with disabilities to become independent agents of change (Moser, 2006). James et al.’s (2018) study on people with disabilities and their nondisabled peers found that TrailRider enabled people with mobility impairments to access previously inaccessible natural environments. Despite its empowering abilities, AT can also be a barrier to inclusion. The lack of appropriate resources and services make some environments inaccessible (Hammel et al., 2015; James et al., 2018). Some built environments within parks, such as paths, embankment, inclines, hills, rails, or berth areas, are

made with nondisabled people in mind; ATs (e.g., manual or electric wheelchairs) are not tailored for outdoor activities or are too difficult, fragile, or dangerous to use (Hammel et al., 2015). Also, OLAs can be counterproductive when nondisabled assistants assume guardianship or decision-making authority about events, and people with disabilities may not be given autonomy to make personal decisions (e.g., where and when to go, how long to stay in the woods) when nondisabled assistants take control (James et al., 2018; Moser, 2006).

Barriers to OLAs. Many factors related to institutional practices (Dolmage, 2017; Valle & Connor, 2011) and the environment and individual limit graduate students with disabilities from participating in OLAs. For instance, without Daniel owning a car, knowing how to drive, and willing to provide transportation to and from the campsite, it would have been challenging for Simba to participate in OLAs during their graduate studies. Also, without Simba competency to take care of himself, for example, cook unassisted, it would be difficult for him to camp in the woods. Previous studies reveal that involvement of people with disabilities in OLAs is influenced by the availability of resources, services, facilities, experts, families, and friends who can provide physical, emotional, and psychological support (Dorsch et al., 2016; James et al., 2018). Physical, social, political, economic, and cultural barriers can make OLAs inaccessible (Burns et al., 2013). Barriers to OLAs include inaccessible environments (e.g., rough terrain) (Barclay et al., 2016; Franco et al., 2015); transportation issues (Williams et al., 2004); and stigmas, stereotypes, and biases (Goffman, 1963; Reeve, 2012). This means that communities must contribute their input to help remove barriers to OLAs.

Conclusion

This study provides insight into our experiences with OLAs. Firstly, it identifies and acknowledges the barriers that exist at the personal and institutional levels that can be overcome by networking. Secondly, it emphasizes the significance of OLAs for graduate students with and without disabilities. Thirdly, it documents several perceived benefits for individuals involved in OLAs. The collage and descriptions of the occurrences show different perspectives that challenge disability myths. The productive life in the woods, as seen in the active interactions and negotiations between Simba and Daniel, demonstrates how people can share in camping experiences as equal partners and contributors without the labels of disabled and abled.

Outdoor leisure activities provide graduate students with spaces to learn; refresh; build relationships; claim their own independence, identity, and humanity; and lead healthy lives (James et al., 2018; Zhang et al., 2017). This is because life in the woods is quite different from the urban and university concrete jungle. Unlike the fast-paced life of a city, the woods provide a tranquil environment where life is stable and continuous. This slower-paced existence in the woods allows individuals to engage with nature in a more respectful manner (Burns et al., 2009). People in the woods feel reciprocally connected to nature and thus find themselves pacified by intimate interactions with the setting (O'Brien, 2005). Even though the woods afford opportunities to improve one's wellbeing (Coon et al., 2011; Diodati, 2017), graduate students with disabilities face barriers to leisure and recreation; these barriers can be analyzed at the

intrapersonal, interpersonal, and structural levels (Burns et al., 2013; James et al., 2018). The intrapersonal level refers to qualities that control the mechanism of an individual's internal environment (i.e., body and mind) and its capacity to interact with the external environment. The interpersonal level comprises relational factors that influence how individuals react to one other (e.g., attitudes). The structural level describes social, economic, and physical factors that influence the intra- and inter-personal levels of relationships (Burns et al., 2009). Then, it is important to include students with disabilities when choosing OLAs to ensure they meet their needs.

Implications

Outdoor leisure activities have many health benefits: they lead to improved body function through exercises, they inculcate self-discipline, nurture self-determination, promote self-esteem, enable self-awareness and self-control, strengthen relationships, revitalize energy, and enhance cognitive prowess, and improve an individual's quality of life. Considering social, economic, political, immigration, and academic demands in the graduate school, instead of confinement in segregated spaces such as the concrete jungle making up university campuses (Shapiro, 1994), graduate students with disabilities need to participate in OLAs alongside their peers with and without disabilities. This can be achieved when college students with disabilities are involved in participatory approaches that help to identify and address barriers to OLAs (Fialka, 2016). Interactions between disability with nature challenge the notion of normalcy (Oliver, 2009). Therefore, to increase enrollment and the successful completion of graduate school, people with disabilities require opportunities to belong and successfully deal with college stressors.

Recommendations

This study is very informative. It provides readers with ways OLAs' support graduate students with disability who lead a sedentary life, peers without disability to learn about different people's strengths, an opportunity for nondisabled peers to know that they are not superhuman in comparison to their counterparts with disabilities. It also provides opportunities to share responsibility and allowance of person with and without disability to make choices on their own. Nonetheless, there are some limitations to the study. The sample size is small, the findings are subjective and so may not represent the full perspective of experience of people with and without disabilities in graduate school. In addition, the authors participated in a primitive camping experience, yet there are different kinds of outdoor leisure activities. Few colleges provide inclusive camping trips or other experiences for people with disabilities. So future studies should focus on these areas with a bigger population. Also, future studies should address contextual factors regarding political, cultural, social, physical, economic, linguistic, and psychological barriers to the participation of graduate students with disabilities in leisure, recreation, and outdoor programs. While this experience was the first and different, it was only a starting point for other future experiences shared by both.

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