OUTDOOR RECREATION EXPERIENCES AMONG PERSONS WITH DISABILITIES (PWDs) IN KLANG VALLEY, MALAYSIA: CONSTRAINTS, FACILITATORS, AND CONSTRAINT NEGOTIATION STRATEGIES

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ABSTRACT

OUTDOOR RECREATION EXPERIENCES AMONG PERSONS WITH DISABILITIES
(PWDs) IN KLANG VALLEY, MALAYSIA: CONSTRAINTS, FACILITATORS, AND
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Outdoor recreation and leisure have been deemed essential parts of human life,

contributing to quality of life, regardless of status and abilities. Despite the many benefits and

importance of the activities and experiences, persons with disabilities (PWDs) in Malaysia still

face challenges in accessing and participating in outdoor recreational activities. In recent years,

several studies in Malaysia have focused on the structural aspects of constraints, but few have

concentrated on understanding the roles of constraints negotiation and facilitators for leisure

participation. The lack of information and understanding about factors related to constraints and

facilitators of leisure in Malaysia make it difficult for recreation providers, park managers, and

advocates to provide effective accessible leisure outdoor services for PWDs. Physical barriers

and lack of accessible facilities and services, coupled with other limitations such as limited

funding and negative social stereotypes of PWDs in Malaysia, make it difficult for providers to

create environments conducive for PWDs to participate in accessible leisure outdoor activities.

Therefore, to understand the needs and challenges faced by the Malaysian PWD

community, the purpose of this exploratory study is to examine outdoor recreation participation

of PWDs, the constraints and facilitators related to their outdoor recreation participation, and

strategies they may use to negotiate those constraints. This study is delimited to persons with

mobility impairments (n=11) and visual impairments (n=10) who reside or work in the Klang

Valley, Malaysia. Interviewees represent three major ethnicities in Malaysia, male and female genders, diverse ages and levels of education, and employment status.

Findings suggest that PWDs in Malaysia experience various constraints before and during their outdoor recreation participation, and they negotiate their constraints to enable their participation. The study also reveals that facilitators for outdoor recreation participation vary depending on multiple factors and are distinctive to the individual's disability type. Respondents advise other PWDs to have positive attitudes and strong beliefs in their own abilities. They plea for understanding and awareness across Malaysian society toward PWDs, and urge authorities to take specific actions to tackle problems such as lack of enforcement, poor facilities development, and substandard management practices by authorities responsible for outdoor recreation provision in Malaysia.

Study results provide insights that reflect the current demands and needs of Malaysian PWDs regarding their outdoor recreation participation. Thus, results of this study should help outdoor recreation providers, relevant agencies, and local community member to develop and provide accessible outdoor recreation opportunities more effectively than done currently. Results of this study can help policymakers review existing policies and modify them to facilitate and help increase outdoor recreation participation among PWDs in Malaysia. Finally, this study will contribute to the literature related to outdoor recreation, leisure constraints, and facilitators among PWDs in a specific context, Malaysia.

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CHAPTER 1

INTRODUCTION

Outdoor recreation and leisure have been deemed essential over the years. They are regarded as part of life, contributing to the living standard of a society, and should be considered rights of every living human being regardless of status and abilities (Dahan-Oliel et al., 2014; Mobily, 2015; Soffer & Almog-Bar, 2016; Sylvester, 2015; Wise, 2015). In fact, the rights of individuals for access to leisure have been enshrined for more than 70 years, since 1948, in Articles 24 and 27 of the 1948 Universal Declaration of Human Rights (United Nations [UN], 2015).

Previous studies have revealed that persons both with and without disabilities share the same desires and preferences in the kinds of natural settings for their outdoor experiences (Brown, Kaplan, & Quaderer, 1999; Burns & Graefe, 2007; McCormick, 2001) and tourism activities (Yau, McKercher, & Packer, 2004). In fact, studies also have shown that persons with disabilities (PWDs) also prefer the same kinds of outdoor recreation activities (Burns & Graefe, 2007; McCormick, 2001), and seek the same kinds of challenges and adventures in the outdoors (Anderson, Schleien, McAvoy, Lais, & Seligman, 1997; McAvoy, Schatz, Stutz, Schleien, & Lais, 1989; Robb & Ewert, 1987) as do persons without disabilities.

Unfortunately, PWDs have long been hindered from participating in outdoor recreation despite the many benefits from the activities (Kin, 2013; Hastbacka, Nygard, & Nyqvist, 2016). With lack of choices and opportunity, individuals with disabilities often are left with either limited or no options at all. It is reported that, for PWDs to participate in outdoor recreation and leisure activities, they face greater constraints than those without disabilities (Bult, Verschuren, Lindeman, Jongmans, & Ketelaar 2014; Masse, Miller, Shen, Schiariti, & Roxborough, 2012;

Anderson, Schleien, McAvoy, Lais, & Seligmann, 1997; Burns & Graefe, 2007; Freudenberg & Arlinghaus, 2009; McAvoy, Holman, Goldenberg, & Klenosky, 2006). For instance, Bult, Verschuren, Lindeman, Jongmans, and Ketelaar (2014) reported that leisure participation is often challenging for children and youth with physical disabilities, which results in fewer activities and lower participation rates due to activity limitations. With lack of opportunities, individuals with disabilities are further exposed to the risk of being excluded not only from active outdoor recreation participation (Mahon, Mactavish, Bockstael, O'Dell, & Siegenthaler, 2000) but, more importantly, from daily social activities.

Lack of participation in such physical and social activities hinders many other areas of development, which ultimately can contribute to unemployment, lack of participation in the community, social isolation, psychological maladjustment, and a host of physiological infirmities (Bashir, Humara, & Riaz, 2014). To make matters worse, the lack of opportunities in general also leads them to sedentary lifestyles, which often contribute to secondary illnesses (Bright, 2004; Lieberman, Byrne, Mattern, Watt, & Fernandez-Vivo, 2010) and result in adverse impacts on their quality of life (Dahan-Oliel et al., 2014).

Persons with Disabilities (PWDs)

According to the World Health Organization (WHO), it is estimated that at least one billion people, or 15 percent of the world's population, experience some form of disability (WHO, 2011), hence, making the disability group the largest minority group globally. The prevalence of disability is expected to grow significantly with the global increase in chronic diseases and an aging population, as well as the advancement in methods to measure disability (WHO, 2013).

Historically, the term 'disability' has been perceived and defined differently according to various contexts and models upon which the definitions are based. As declared in the United Nations Convention on the Rights of Persons with Disabilities, the term has been recognized as representing an "evolving concept" that changes over time (United Nation, 2006). The complexity and evolution of definitions may be because the concept represents a part of a human condition that is complex, multidimensional, and varies depending on multiple contextual factors (WHO, 2011).

WHO has provided the most current, widely used description for disability, which is based on the International Classification of Functioning, Disability, and Health (ICF). This is a revised version of the previous International Classification of Impairments, Disabilities, and Handicaps (ICIDH), which was based on social models of disability that focused on human functioning and its restrictions. This revised conceptualization has expanded beyond the medical model paradigm that viewed disability as a defect or failure of a physical condition and in need of a treatment (Perenboom & Chorus, 2003).

Used with the ICF classification system, the word 'disability' is an umbrella term that encompasses a wide variety of impairments, body functions and structures, activity limitations and participatory restrictions (WHO, 2011). According to the World Health Organization (2011), disability refers to "the negative aspects of the interaction between individuals with a health condition (such as cerebral palsy, Down syndrome, and depression) and personal and environmental factors (such as negative attitudes, inaccessible transportation and public buildings, and limited social supports" (WHO, 2011, p. 7). Persons with disabilities include those who have long-term physical, mental, intellectual, or sensory impairments that, in interaction

with various barriers, may hinder their full and active participation in society on an equal basis with others (United Nations, 2006).

Persons with disabilities represent a diverse and heterogeneous group that can be differentiated by the wide variety of conditions, type and time of onset, and level of severity. Ross (2001) categorized the types of disability as (a) physical disability, (b) cognitive disability, (c) emotional disability, (d) social disability, and (e) multiple disabilities.

However, regardless of a person's description of themselves, or the type of disabilities or the perceptions that they have, a person with disabilities is no different in many ways from any individual in the society. The disability does not define them as persons; rather, it is something with which they must function on a daily basis. Thus, they should be addressed by using People First language. According to Ross (2001), People First terminology "refers to the words and phrases one employs when referring to persons with disabilities so as to put the person first, thereby focusing on the person rather than the disability in a positive, humanizing manner" (p. 143). Not only does it put the person before the disabilities, but it also helps promote positive attitudes towards PWDs (Bullock & Mahon, 2017). For example, instead of being called "blind person," the People First language recommends the term "person with visual impairment" as the preferable alternative.

Persons with Disabilities in Malaysia

It is reported that there are at least half a million registered PWDs in Malaysia (Department of Statistics Malaysia, 2018). This number, however, is estimated to be considerably lower than the real figure due to the non-compulsory nature of registering persons living with disabilities under Malaysian law. If using the Malaysian disability prevalence estimation of 11.8 percent (Ahmad et al., 2017), the projected number of persons with disabilities

is expected to be more than 3.5 million. This estimation also is likely to increase in future years, due to an increase in the human lifespan and increasing rates of traffic and industrial accidents (Department of Social Welfare, 2016).

In Malaysia, the services and assistive aids for PWDs are under the jurisdiction of the Department of Social Welfare (DSW), under the Ministry of Women, Family, and Community. With the mission of "empowering community in need toward social well-being," all matters including registration, rehabilitation, and welfare of PWDs are directed to this department. DSW classifies PWDs into seven categories, as those having hearing, visual, speech, physical, learning, mental, and multiple disabilities. In terms of prevalence of each type of disability, the physical disability category is recorded as the largest group (35.2%), followed by the learning disability group (34.8%), the visually impaired group (8.9%), the mentally impaired group (8.3%), the hearing impaired group (7.6%), and those having multiple disabilities (4.7%). The speech disability category is the smallest group, having only 0.5 percent of registered PWDs (Department of Statistics Malaysia, 2018).

In the effort to progress toward achieving the status of a developed country, Malaysia has prepared for the rights of all its people, including protecting the interests and rights of PWDs. The endeavour to provide aids and support for PWDs in Malaysia can be traced back to the country's Independence Day. The Malaysian Federal Constitution 1957, under Articles 8 (1) and (2), guarantees the equality of all before the law, and protection for all citizens against discrimination on the grounds of race, descent, or place of birth (Federal Constitution, 2010). In addition to the constitutional provision, several other related policies include special provisions for PWDs, such as the Town and Country Planning Act 1976 (Act 172), the Uniform Building by-law (1984), the Malaysian Standards for Accessibility Buildings of 1990, 2000, and 2003 acts

(Kamarudin, Muhamad Ariff, Wan Ismail, Bakri, & Ithnin, 2014), the Code of Practice of Employment of Disabled Persons in Private Sector in 2001 (Abdul Kadir & Jamaludin, 2011), the National Welfare Policy in 1990 and the National Social Policy in 2003 (Islam, 2015).

Although many new and amended policies were implemented through the early 2000s, the programs used predominantly welfare and charity-based approaches (Khoo, 2011; Jayasooria, Krishnan, & Ooi, 2006). This situation remained until establishment of the Persons with Disabilities Act in 2008 that represented a paradigm shift and transitioned Malaysia to a rights-based approach. This new social model has brought significant changes to how disability is perceived in the community. Previously PWDs were seen as persons who were in need of medical attention and support; now they are considered active members in the society who may need special accommodations to facilitate their participation in community life. One noticeable improvement resulting from this transformation was the change in the definition of disability. Since passage of the Person with Disabilities Act (PWDA) in 2008, Malaysia has embraced the United Nations Convention on the Rights of Persons with Disabilities' definition of disability, which recognizes disability as an evolving concept deriving from the complex interactions between humans (who have long-term physical, mental, intellectual or sensory impairments) and the surrounding contextual barriers (society, culture, politic, climate, topography, technology, and built environment) that may hinder their full and effective participation in society (Marsin, Ariffin, & Shahminan, 2014).

This shift in policy has led to positive changes in the country's disabilities culture, including the use of names and terminologies associated with disability types (Khoo, 2011). Use of negative connotation terminologies such as "less fortunate group," "crippled," and "special people," which were quite common in the society previously, now are being replaced by the

standardized term "person with disabilities." The transformations also include the adoption and promotion of the People First language to highlight the person first rather than their impairment.

Momentum from these positive changes has initiated changes in the practice of working with persons with disabilities, shifting from a charity-based approach to social-based, inclusive, and human rights-based approaches. The equality and social inclusion agenda promotes a rights-based perspective, advocating that persons with disabilities be offered the same opportunities to participate and enjoy life opportunities as others, fully and without prejudice (Wan Abdullah, 2013). This shift is reflected in the Biwako Millenium Framework for Action on Disability (Mohd Noor, Mohd Isa, & Abdul Manaf, 2017), the Tenth Malaysian Plan: 2011-2015 (The Economic Planning Unit, 2010), the Incheon Strategy 2012-2022 (United Nations, 2014), and the Malaysian 2016-2020 PWDs Action Plan (Department of Social Welfare, 2016).

Challenges and Issues related to PWDs in Malaysia

Since establishment of Malaysia's PWD Act in 2008, many improvements have occurred, especially in how disability services have transformed from providing treatment and assistance to promoting independence and quality of life for PWDs. However, despite these positive changes, PWDs are still far from enjoying the full benefits and rights as specified in the PWD Act of 2008. PWDs still face many challenges and obstacles in their daily activities (Abdullah, Hanafi, & Mohd Hamdi, 2017; Khoo, Tiun, & Lee, 2013; Tiun & Khoo, 2013; UNICEF, 2017). Many issues regarding persons with disabilities remain unresolved, with many PWDs still being marginalized and deprived of full social inclusion (Abdul Wahab & Ayub, 2017). Structural and physical challenges are reinforced by the lack of knowledge and understanding about disability and the culture of PWDs among the members of the public, which leads to negative stereotypes and social exclusion (UNICEF, 2017; Tiun & Khoo, 2013).

Poor implementation and lack of enforcement can be attributed to existing loopholes in the legislation, as suggested by Md. Tah (2013). One criticism is that, although the PWD Act of 2008 provides rights for PWDs, it also has an escape clause under Section 41 that protects the government and private entities from penalties for omission of services, negligence, or obstruction of any of these rights if actions have been made in good faith (Md. Tah, 2013). Thus, in the effort to progress toward full adoption of the PWD Act of 2008, much work still needs to be done, especially in implementation and enforcement of mandated facilities and services. To facilitate support for PWDs, improvements are needed to strengthen the PWD Act of 2008, empower PWDs, and facilitate education and awareness about diversity and disability among all members of society. To be a true, caring and just nation, Malaysia needs to work communally to create a conducive and welcoming environment where people from all backgrounds and of all abilities can co-exist and socialize in an enabling and inclusive environment.

Statement of the Problem

While there is growing research on the impacts of leisure constraints and negotiation strategies with regard to PWDs, very little research has been dedicated to understanding the roles of constraints negotiation and facilitators toward leisure participation, especially in the Malaysian context. Previous studies on Malaysian participation in outdoor recreation and leisure have focused on whether or not individuals participate in the activities. Also, Malaysian PWD leisure research and corresponding recommendations for practice have concentrated on physical accessibility, mainly through providing barrier-free and accessible design and facilities in public parks. However, it is understood that physical accessibility alone does not ensure participation. Studies have shown that other factors (e.g., intrapersonal, interpersonal, and structural constraints/facilitators) also influence participation. The lack of information and understanding

about factors related to varied constraints and facilitators of leisure in Malaysia make it difficult for recreation providers, park managers, and advocates to move forward with providing effective accessible leisure services for PWDs. Coupled with limited funding and the current common social perspective toward PWDs in Malaysia, lack of understanding of the complex nature of PWD lives makes it challenging for providers to create conducive environments for PWDs to participate in accessible and suitable leisure outdoor activities.

Purpose of the Study

The purpose of this exploratory study, within the current Malaysia context, is to examine outdoor recreation participation of PWDs. Specifically, this study seeks to identify the perceptions of PWDs about outdoor recreation, their meanings and experiences related to personal participation in outdoor recreation, and their perceptions about outdoor recreation participation generally among PWDs in Malaysia. This study aims to identify factors that facilitate or constrain Malaysian PWDs' participation in outdoor recreation activities, and to identify strategies they use to negotiate constraints.

Results of this research can help develop recommendations to assist outdoor recreation providers, relevant agencies, and local community members better understand the issues regarding outdoor recreation participation among PWDs in Malaysia. Recommendations will assist them in: reviewing and modifying existing policies; developing facilitative facilities and accessible programs; providing training, technical and social support; and promoting social inclusion and active lifestyles through outdoor recreation activities.

Assumptions

In this study it is assumed that:

- constraints alone do not explain lack of participation in outdoor recreation, because the elimination of constraints does not ensure participation;

- constraints and facilitators exist both before and during participation;

- facilitators for one person may be constraints to another person; and

- people experience constraints and sometimes find ways to negotiate the constraints.

Research Questions

The research questions guiding the study are as follows:

1. What are perceptions of PWDs in Malaysia about the outdoor environment and outdoor recreation activities, both personally and for Malaysian PWDs collectively?

2. What constraints do PWDs in Malaysia perceive related to their personal participation in outdoor recreation activities?

3. Do PWDs in Malaysia negotiate outdoor recreation participation constraints? And, if so, what strategies do they use?

4. What are the facilitators that help PWDs participate in outdoor recreation activities?

5. What are factors recommended by PWDs to facilitate future outdoor recreation participation among PWDs in Malaysia?

Significance of the Study

Study results provide insights that reflect the current demands and needs of persons with disabilities in Malaysia for experiences in natural areas and with outdoor recreation. Thus, results of this study should help outdoor recreation providers and relevant agencies understand these needs, constraints, and facilitators, and help them to develop and provide accessible and suitable

outdoor recreation opportunities more effectively than done currently. The research also should help providers more effectively promote social inclusion and active lifestyles through outdoor recreation activities among PWDs. Insights from and results of this study eventually can help policymakers review existing policies and modify them to facilitate and help increase outdoor recreation participation among PWDs in Malaysia.

Finally, this study contributes to the literature related to outdoor recreation, leisure constraints and facilitators among PWDs in a specific context, Malaysia.

Definitions of Key Terms

Several definitions, provided to clarify their use in this study, are presented below:

Accessibility: Set of conditions that enable persons with disabilities to live independently and participate fully in all aspects of life, which include the identification and elimination of obstacles and barriers to access (UN, 2006).

Constraint negotiation strategies: Methods or processes used to move through or change a sequence of constraints through modification of behavior and/or cognitive strategies to facilitate leisure participation (Jackson, Crawford, & Godbey, 1993).

Enabling Environments: Accessible environments – encompassing all physical, social, and attitudinal domains – that can foster participation and inclusion (World Health Organization [WHO], 2011).

Inclusion: The removal or elimination of social barriers, enabling persons with and without disabilities to participate in daily activities, in settings where everyone belongs and feels accepted (Stainback & Stainback, 1990).

Inclusive outdoor recreation: Outdoor recreation settings, opportunities, and experiences that reflect free and equal opportunities of access to participate in and integrate with others in

outdoor recreation by persons with disabilities (Smith, Austin, Kennedy, Lee, & Hutchison, 2005).

Leisure activities: Activities (that include outdoor recreation) in which people engage during their free-time activities that are not work-oriented or that do not involve life maintenance tasks such as housecleaning, eating, sleeping, or caring for family members (Hurd & Anderson, 2011).

Leisure Constraints: Factor(s) perceived or experienced by individuals that affect the formation of leisure preferences and that inhibit or prohibit participation and enjoyment in leisure (Jackson, 1997).

Leisure Facilitators: Factor(s) that are "assumed by researchers and perceived or experienced by individuals to enable or promote the formation of leisure preferences and to encourage or enhance participation" (Raymore, 2002, p. 39).

Outdoor Environment: An open space or areas outside of the confinements of buildings where outdoor activities can take place (Maynard & Waters, 2007).

Outdoor Recreation: An activity in which people engage during their free time that is closely linked to or dependent on the natural environment, that people enjoy, and that people recognize as having socially redeeming values (Hurd & Anderson, 2011).

Participation: Involvement and engagement in life situations that include physical, social, and self-engagement in leisure and recreation activities (WHO, 2001).

Persons with a Disability/Persons with Disabilities (PWDs): Includes those who have "long-term physical, mental, intellectual or sensory impairments that, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others" (UN, 2006, pp. 4).

Person with a Physical Disability/Person with Physical Disabilities (PWPDs): A person who has one or more permanent inability/inabilities of a part of the body, whether resulting from loss or absence or dysfunction of any part of the body, that can significantly affect or limit their functions in one or more major life activities.

Person with Visual Impairments: The term "visual impairment" refers to a functional limitation of the eye(s) or vision that includes moderate and severe loss of vision or blindness (WHO, 2013).

Delimitations

This study is delimited to adult individuals, working or residing in the Klang Valley of Malaysia, aged 18 and older, having at least one physical disability or having loss of vision, and who are willing and able to engage in the interview.

<center>**CHAPTER 2**</center>

<center>**LITERATURE REVIEW**</center>

<center>**Benefits of Outdoor Recreation and Leisure Participation**</center>

Outdoor recreation and leisure participation provide a multitude of benefits, including physiological, psychological, sociological, economic and environmental benefits (Dahan-Oliel et al., 2014; Dorsch, Andrew, Richards, Swain, & Maxey 2016; Driver, Douglas, & Loomis, 1999; Stumbo, Wang, & Pegg, 2011). The impact of outdoor recreation and leisure participation, however, does not result in only a single outcome or benefit; rather, it creates a chain-like and cyclic effect that connects one benefit to another, establishing a series of beneficial outcomes for the participant (Bright, 2004; Devine & Dattilo, 2000). These benefits, however, are not limited to individuals without disabilities, but also affect individuals with disabilities. Numerous studies (e.g., D'Eloia & Sibthorp, 2014; Dorsch et al., 2016; McAvoy, 2001; Patterson & Pegg, 2009; Yau et al., 2004) have shown that individuals with disabilities receive similar benefits to those of persons without disabilities when they participate in recreational activities.

As humans, we depend on nature for our material needs (e.g., food, water, shelter). However, we also seek nature for our psychological, emotional, and spiritual needs, which, when met, contribute to health within the context of wellness or well-being. The reason is that health, according to the World Health Organization (WHO, 2006), is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (p. 1). This definition, as mentioned by Godbey (2009), helps shift the perspective of health from a strictly medical model toward a broader concept of well-being. He further explains the connection between participation in outdoor recreation and health as a mutual relationship, that is, "people who participate in outdoor recreation are disproportionately in good health, and

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people in good health disproportionately participate in outdoor recreation" (Godbey, 2009, p.14). Perhaps most importantly, participation in a regular physical activity such as outdoor activity can help prevent secondary illnesses that result from a sedentary lifestyle (Bright, 2004) while at the same time helping maintain a positive and healthy lifestyle. In summary, recreation activities improve people's health condition and, further, provide the opportunity to stay healthy in life (Anderson et al., 1997).

Participation in outdoor recreation and leisure activities may also create opportunities for people to interact socially and communicate with each other, aspects that are considered important parts of daily life. Participants both with and without disabilities, when engaged together in outdoor recreation, are able to experience an increased sense of normalcy, growth in interpersonal relationships and social patterns, greater risk-taking attitudes and self-efficacy, and increased sensitivity to the needs of others (Dorsch et al., 2016; McAvoy et al., 2006). Furthermore, involvement in outdoor recreational activity helps persons both with and without a disability to maintain an active lifestyle and encourages them to focus less on individual differences and more on their shared interests in recreation (Mahon et al., 2000). It helps strengthen positive relationships with others as well as among family members (Dahan-Oliel et al., 2014; Dorsch et al., 2016; McAvoy et al., 2006). Participation in accessible outdoor recreation also can lead to better adjustment to disability, improve perceived quality of life, and increase level of community integration (Bright, 2004). Combined, benefits lead to increased confidence for social inclusion in community settings (Bright, 2004; Patterson & Pegg, 2009). This illustrates the cyclical effect of personal and collective benefits from leisure participation.

Constraints to Outdoor Recreation for PWDs

Studies within the fields of outdoor recreation and leisure reveal that many individuals with disabilities are facing challenges while accessing and participating in recreational activities, which are due to various barriers or constraints (Daniels, Drogin Rodgers, & Wiggins, 2005; Schneider & Wynveen, 2015; Lyu & Oh, 2014). As suggested by Godbey, Crawford, & Shen (2010), the type and level of constraints also vary according to the context of an activity and different participant disability types. As widely understood, different people generally have different needs and preferences in terms of leisure participation; this often is the case also for those who belong to various disability groups (Bloemen et al., 2015; Burns & Graefe, 2007; Dang et al., 2015), and who face more and different constraints and barriers compared with persons without disabilities (Anderson et al., 1997; Burns & Graefe, 2007; Freudenberg & Arlinghaus, 2009; McAvoy et al., 2006). Smith (1987) proposed that the level and type of constraints experienced by PWDs are related to the severity of their disability. Similarly, in their study on differences in participation between children having various degrees of disability, Masse et al., (2012) found that children with milder disabilities are more likely to participate in physical activities than those with more severe disabilities, suggesting the severity of disabilities as a limiting factor in participation.

Constraints in outdoor recreation, in particular for persons with disabilities, tend to involve attitudes and resources (Kastenholz, Eusebio, & Figueiredo, 2015). Attitudinal constraints for persons with disabilities in terms of leisure participation include their own attitudes as well as attitudes of significant others, the community or society at large, and the providers (Ross, 1993). For example, Hastbacka et al. (2016) reported that, apart from PWDs' lack of confidence, the negative attitudes of others, and the associated stigmatization and

discrimination faced in their lives, were frequently highlighted as barriers for societal

participation. Resource constraints include limited or lack of finances, transportation, assistance

or support of another person, leisure partners, knowledge, and skills (Hastbacka et al., 2016;

Ross, 2001).

Constraints to Outdoor Recreation for PWDs in Malaysia

Although outdoor recreation has been increasingly popular and growing in Malaysia for

many years, opportunities for PWDs to participate in outdoor recreation in Malaysia are still

minimal. Even despite establishment of the PWD Act in 2008, which aims to protect the rights of

persons with disabilities and provide access to recreation, leisure, and sport (Islam, 2015),

outdoor recreation and leisure opportunities for PWDs in Malaysia still are limited. PWDs are

still far from being able to freely enjoy the rights to and full benefits of outdoor recreation and

leisure activities. Many challenges still hinder PWDs from participating in and pursuing outdoor

recreation and leisure activities in Malaysia.

Numerous studies have brought to light issues regarding inaccessibility to outdoor

recreation for PWDs in Malaysia. For example, various studies (Abdul Kadir & Jamaludin, 2012;

Abdullah et al., 2017; Hashim et al., 2012; Khoo, 2011; Sanmargaraja & Wee, 2013; Wilson &

Khoo, 2013) have stressed the lack of enforcement, poor planning, and current substandard ethic

of care by authorities responsible for outdoor recreation provision, which have led to limited

opportunities and inaccessibility of public places for PWDs in Malaysia. Even with the

availability of and accessibility to some public areas, PWDs still have to deal with safety and

convenience aspects of the facilities. This is because such facilities often are not user-friendly

due to poor execution of planning and design, and with errors in execution or installation

(Mahyuni, 2008; Saodah & Ardi Herman, 2011) that lead to discomfort, causing hardships and

creating safety issues for PWDs. These situations may be made worse with acts of vandalism to

and misuse of accessible public facilities (Saodah & Ardi Herman, 2011).

Further, lack of knowledge and understanding about disability in Malaysia contribute to

socially constructed barriers that hinder PWDs' participation in outdoor recreation. The negative

perceptions and misconceptions about disability have led to negative stereotypes of and stigmas

about PWDs among the Malaysian society. As mentioned by Wilson and Khoo (2013),

"disablism" continues to be part of the societal views among Malaysians. As Kaur, Leong, Mohd

Yusof, and Singh (2015) pointed out, "when PWDs are stigmatized, barriers preventing PWDs to

fully participate in society are created." For example, PWDs are often excluded from many

outdoor recreational programs due to the false assumption that they are reluctant to participate in

such activities due to the risk and safety issues associated with the activities (Muhammed Kassim

et al., 2014). These attitudes and perceptions by society are not surprising because, according to

a recent study conducted by the United Nations Children's Fund (UNICEF), more than half

(58.4%) of Malaysians are still under-informed about disability. As of 2016, only 30% of

Malaysian respondents recognized intangible disabilities (e.g., behavioral and mental conditions)

as disabilities, whereas 80% considered physical limitations (tangible disabilities) as disabilities

(UNICEF, 2017).

Apart from the above-mentioned constraints, lack of financial capacity also is considered

a major constraint that often limits PWDs' involvement in outdoor recreation activities. This is

because the majority of PWDs in Malaysia fall within the "poor" category, defined by the

Malaysian Economic Planning Unit (2018) as those whose monthly household income is below

MYR 940 (USD 230) per month and with per capita income below MYR 240 (USD 60) per

month. As noted by Mitra, Posarac, & Vick (2011), disability and poverty are dynamic and

intricately linked phenomena. Many studies have reported on the inequality and discrimination in the workforce that often lead to a low employment rate among PWDs (Abidi & Sharma, 2014; Kaur et al., 2015; Khoo et al., 2013; Mohamed Osman, Bachok, & Bakri, 2015; Mohd Noor et al., 2017; Lee, Abdullah, & Mey, 2011). Thus, lack of employment income limits personal funds available for outdoor recreation and leisure participation.

In summary, establishment of the 2008 PWD Act in Malaysia did increase the number of accessible facilities and services in general, but facilities and services still are considered inadequate in alleviating constraints faced by PWDs during their outdoor recreation pursuits. Improvements gained since the PWD Act of 2008 reforms still are not enough to provide conducive environments for PWDs to freely and actively engage in outdoor recreation activities. Many of the changes have focused only on certain aspects of outdoor recreation opportunities and do not comprehensively address all three aspects of constraints: structural, intrapersonal, and interpersonal. Even in the research arena, many studies have focused only on the structural aspects of constraints (i.e., physical access and implementation of universal design principles in the built environment), but few have concentrated on the interpersonal and intrapersonal aspects of constraints, such as providing accessible and suitable outdoor recreation opportunities and programs for PWDs. Therefore, to better understand the needs and challenges faced by the Malaysian PWD community, it is essential for studies to examine the relationship between PWDs and the constraints and facilitators related to their outdoor recreation participation. Toward developing an advocacy strategy and providing access and opportunities to address their outdoor recreation needs, it is crucial for studies to focus explicitly on PWDs within the Malaysian context. This research contributes to this need by studying Malaysian PWDs specifically.

Constraints to leisure participation. Leisure constraint studies have focused on providing insights about and understanding of the relationship between leisure experiences and constraints. Early studies, however, focused on barriers to recreation participation (Packer, McKercher, & Yau, 2007), with the assumption that having barriers automatically results in nonparticipation (White, 2008) and removal of barriers leads to participation. Subsequently, use of the term 'barriers' has been challenged in other studies, suggesting that "the term 'constraints' is more complex and comprehensive" (Hall & Brown, 2006, p.38). The rationale is that barriers can be viewed as permanent and long term (Crawford, Jackson, & Godbey, 1991) while constraints are more dynamic and can be overcome or negotiated (Crawford et al., 1991). Thus, use of the term constraints has been widely adopted as an essential lens through which to view leisure behavior, and to determine factors that limit or inhibit individuals' leisure participation (Jackson, 1991).

Constraints, according to Backman and Crompton (1989), can be defined as "those barriers or blockages that inhibit continued use of a recreation service" (p.59). It "limits the formation of leisure preference and …inhibit[s] or prohibit[s] participation and enjoyment in leisure" (Jackson et al., 1993, p. 273). Constraints affect both participant and non-participant, and their preference formation. It can impede or limit an individual's frequency, intensity, duration, or quality of participation in leisure activities. As suggested by Jackson (2005), almost all people experience constraints, and that different persons will experience different types and severity of constraints. The impacts of constraints vary depending on the condition and aptitudes of the individual. They tend to affect some people more than others, and some are more or less able to be overcome or negotiated (Crawford et al., 1991).

In the attempt to better understand leisure participation, constraints studies have evolved to explore different categories of constraining factors, specifically the intrapersonal, interpersonal, and structural aspects of constraints. This conceptualization can be attributed to the early work of Crawford and Godbey (1987), via their tripartite dimensions of leisure constraints. It was later recast into an integrated model (i.e., hierarchical model of leisure constraints) by Crawford et al. (1991). Since its proposal, various studies have applied the hierarchical model, thereby creating broader understanding of leisure participation behavior (Godbey et al., 2010; Lyu & Oh, 2014).

The hierarchical model of leisure constraints also provides the foundation for other constraint-and-participation-related studies, to include loyalty in participation (Alexandris, Kouthouris, Funk, & Chatzigianni, 2008; King et al., 2003), role of conflict in participation (Schneider & Wynveen, 2015), benefits realization (Lyu & Oh, 2015), constraints to participation for PWDs (Anaby et al., 2013; Hastbacka et al., 2016; Schreuer, Sachs, & Rosenblum, 2014; Wilhite, Martin, & Shank, 2016), and constraints negotiation (Alexandris, Kouthouris, Funk, & Tziouma, 2013; Burns & Graefe, 2007; Freudenberg, & Arlinghaus, 2009; Lyu & Oh, 2014; Metcalf, Burns, & Graefe, 2013). The hierarchical model of leisure constraints also has triggered proposals of other models such as the independence model (Hubbard & Mannell, 2001), mitigation model (Hubbard & Mannell, 2001), facilitators to leisure model (Raymore, 2002), and integrated model of constraints and benefits (Crompton, Jackson, & Witt, 2005).

The hierarchical model of leisure constraints. Leisure constraints in outdoor recreation and leisure activities are categorized into three dimensions: intrapersonal, interpersonal, and structural. Intrapersonal constraints are related to an individual's psychological state and interact

with formation of leisure preferences rather than intervening between preferences and participation (Crawford & Godbey, 1987). Intrapersonal constraints involve physical functioning, perceptions, and cognitive abilities such as stress, anxiety, perceived self-skills, and subjective evaluations of the appropriateness and availability of specific activities (Crawford & Godbey, 1987), lack of knowledge, health problems (Daniels et al., 2005), and the individual's attitudes, moods, feelings, and motivations (Kiernozek, 2015).

Interpersonal constraints are associated with social interactions among people. Interactions occur within a setting or can be limited due to the absence of a partner with whom to interact (Crawford & Godbey, 1987). Sources for interpersonal constraints include inability to find a suitable partner for the activity (Crawford & Godbey, 1987), lack of companions and support from friends/family members, (Ghimire, Green, Poudyal, & Cordell, 2014; Mahy, Shields, Taylor, & Dodd, 2010), and conflict or disagreement with other participants (Buchanan, 1997).

Structural constraints typically represent those factors that intervene between leisure preference and leisure participation (Crawford & Godbey, 1987) and often relate to features of the external environment (Park et al., 2017). They can be derived from the lack of facilities, amenities, and other support systems such as policies and regulations (Daniels et al., 2005), lack of availability of time or opportunity (Crawford & Godbey, 1987; Buchanan, 1997). Lack of financial resources, inadequate transportation, and poorly maintained activity areas (Ghimire et al., 2014) also contribute to structural constraints.

According to the hierarchical model of leisure constraints (Figure 1), the relationship between constraints and leisure behavior are in the form of sequential relationships that are based on a hierarchical order.

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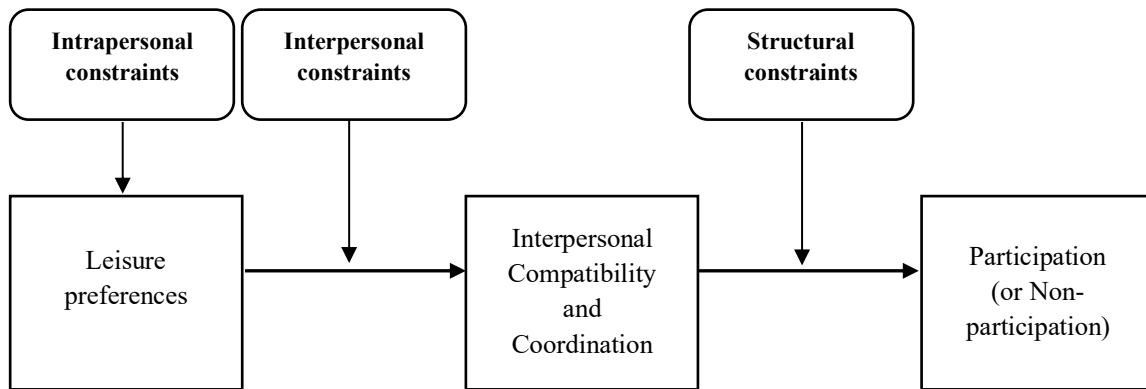
Figure 1: The hierarchical model of leisure constraints (Crawford et al., 1991, p. 313)

The proposition is that an individual is "heavily dependent on negotiating through an alignment of multiple factors, arranged sequentially, that must be overcome to maintain an individual's motivation" (Crawford et al., 1991, p. 314). In other words, an individual must first encounter and overcome their intrapersonal constraints, then progress to addressing the subsequent type of constraints (i.e., interpersonal). Only when the intrapersonal and interpersonal dimensions of constraints are overcome or negotiated can individuals face the structural constraints (Crawford et al., 1991).

Constraints negotiation strategies. It is well accepted that understanding of leisure participation in the context of constraints alone is not enough. This is because constraints are not necessarily the only determinant of lack of leisure participation (Jackson, 1991; Scott, 1991) and the absence or elimination of constraints does not necessarily confirm leisure participation (Alexandris et al., 2013; Jackson et al., 1993; Scott, 1991).

As proposed by Jackson et al. (1993), constraints in leisure occur in both participants and non-participants, and the constraints faced by people are explicit and on-going, and can occur at any time during their involvement in leisure activities (Daniels et al., 2005). For participation to take place, individuals first must negotiate the perceived or actual constraints, through the use of

negotiation strategies (Jackson et al., 1993; Scott, 1991), and their negotiation must be successful in facilitating those constraints (Daniels et al., 2005; Godbey et al., 2010; Jackson, 1999; Jackson et al., 1993; Scott, 1991). In other words, leisure participation is not necessarily determined by the existence or absence of constraint, but is determined by the outcome of the constraint negotiation process (Burns & Graefe, 2007).

The conceptualization of leisure constraints negotiation became prevalent in the early 1990s (Scott, 1991; Jackson et al., 1993). General understanding of this concept is that the interaction between constraints and leisure participation is continuous (Daniels et al., 2005; Jackson et al., 1993; Samdahl & Jekubovich, 1997) and that constraints are not necessarily insurmountable (Scott, 1991). Leisure participation can be achieved through the process of negotiation whereby a person finds ways to manage and/or overcome the constraints (Daniels et al., 2005; Jackson, 1999; Jackson et al., 1993; Scott, 1991). Lyu and Oh (2014) claimed that the fundamental assumption of this negotiation concept can be traced to social cognitive theory (Maddux, 1993). The philosophy behind this concept suggests that individuals are "active operators" in their life choices, and they tend to actively choose or alter situational and environmental conditions rather than passively accept unfavorable conditions (Mannell & Loucks- Atkinson, 2005). This idea was applied to development of the concept of leisure constraints negotiation.

As mentioned previously, this concept suggests that individuals are not necessarily passive victims of barriers; rather, they function more as "active players" (Jackson & Ruckus, 1995; Mannell & Loucks-Atkinson, 2005). Despite the presence of constraints, people can find ways to actualize their leisure pursuit by "negotiating around" the constraints, by making changes in their actions, and/or modifying their behaviors to navigate or accommodate the

constraints (Jackson et al.,1993; Mannell & Kleiber, 1997; Scott, 1991). Failure to negotiate constraints may result in non-participation (Scott, 1991). It is also possible that a leisure experience, as a result of the negotiation process, may be different than if constraints had been absent (Jackson, 1999) or if different negotiation strategies had been used (Jackson et al., 1993). For instance, Kay and Jackson (1991) discovered that, when faced with financial constraints, respondents saved money over time to be able to participate, or opted for less expensive activities. Another negotiation strategy, identified by Huber, Milne, and Hyde (2018), was that participants negotiated financial constraints by working part-time to maintain their leisure lifestyle.

Two types of negotiation strategies. Jackson et al. (1993) divided negotiation strategies into two categories: (1) cognitive strategies and (2) behavioral strategies. Cognitive strategies are used to negotiate constraints by way of reducing cognitive hindrances through changing leisure aspirations or expectations. Kono (2018) explains that cognitive strategies involve reasoning and changes in an individual's mind, such as ignoring issues and downplaying a preferred leisure activity. Support for this contention is evident in the work of Lyu and Oh (2014), who found that, despite having an unfavorable situation, participants try to cope, ignore, or make do with a situation they were facing, enabling them to proceed with their participation.

Behavioral strategies, on the other hand, involve the individual making observable changes in behavior, such as modifying their use of time, acquiring skills (Jackson et al., 1993), or changing the location and time of leisure (Schneider & Wynveen, 2015). Behavioral negotiation strategies involve individuals seeking alternative actions and modifying non-leisure aspects of lifestyle (Jackson & Rucks, 1995) to accommodate their leisure involvement. Unlike cognitive strategies in which the individual sacrifices their leisure aspirations and modifies

expectations for their leisure experiences, behavioral negotiation strategies are used to maintain their leisure aspirations (Schneider & Wynveen, 2015). Participants may join associations and clubs to find new activity partners to compensate for loss of a recreation partner (Huber et al., 2018). Another specific example (Alexandris et al., 2013) involves participants acquiring and improving their knowledge about and skills in swimming, adjusting their lifestyles, and managing their time.

Although these strategies can be used either separately or collectively, depending on the degree of constraints faced by an individual (Jackson & Rucks, 1995; Lyu & Oh, 2014), outcomes will be determined by the interaction between the strength of the constraints (perceived or actual) and by the ability and strength of the user (Jackson et al., 1993). For instance, Stensland, Aas, and Mehmetoglu (2017) found that a higher level of perceived self-efficacy would probably result in higher motivation to use negotiation strategies to participate in fishing activity. This finding has been supported by previous studies (Loucks-Atkinson & Mannell, 2007; White, 2008). Likewise, Lyu and Lee (2016) reported that a strong perception of structural constraints and motivations by PWDs would strongly trigger their negotiation strategies. Alternatively, findings from Alexandris et al. (2013) suggested that lower ability to acquire knowledge and information about swimming resulted in fewer negotiation strategies, which led to less involvement in the activity.

Another important facet of the negotiation proposition is that the types of negotiation strategies used depend on the situation and the types of constraints encountered by the individual (Jackson et al., 1993; Jackson & Rucks, 1995). Kono (2018), in his study on leisure participation for earthquake and tsunami survivors, reported that survivors tried to overcome constraints of feeling leisure is meaninglessness by reattaching meanings to leisure activities. Dominguez

(2003), in her study on women sea kayakers, reported that, in the effort to negotiate fears, the majority of the women kayakers relied on support from their instructors and group members, or a combination of both.

        Facilitators to leisure participation. A significant number of studies have explored and broadened the understanding of the roles and impacts of leisure constraints and constraints negotiation on leisure participation. Less attention has been given to understanding the roles and impacts of leisure facilitators in leisure participation.

        As mentioned above, attempts to understand the issue regarding leisure participation has been heavily focused on the constraints model. However, the foundation for this model also can be flipped to focus on the contrasting factor to constraints, the facilitators. As suggested by Raymore (2002), as constraints can explain nonparticipation, facilitators can explain participation. As highlighted by Wilhite et al. (2016), the purpose of a leisure facilitation model is to understand leisure participation by exploring participation from the "what works" perspective, that is, to understand issues from the perspective of facilitated participation. To put it another way, rather than trying to understand what constrains individuals and how they negotiate these constraints, it is imperative also to understand the factors that facilitate their leisure participation.

        Raymore's (2002) concept describes facilitators as "condition[s] that exist, whether internal to the individual, in relation to another individual, or to some societal structure, that enables participation …and it is by no means the process through which that condition energizes or motivates behavior leading to (i.e., facilitating) or limiting (i.e., constraining) participation" (pp. 43-44). Although facilitators generally have been accepted as factors or conditions that promote or enable leisure participation, it is imperative to understand that they are not the same

as negotiation strategies. This is because facilitators are the "conditions" that can exist with or without constraints that help nurture the formation of leisure participation, whereas negotiation strategies involve the "process" taken by the individual in actualizing their leisure participation while experiencing constraints (Raymore, 2002; Schneider, 2016).

While the term "facilitator" may be understood as the opposite of a constraint, the concept of facilitators does not imply the opposite effect of constraints (i.e., freedom from constraints). The absence of constraint does not necessarily become a facilitator (Hastbacka et al., 2016) and the presence of facilitators does not necessarily mean that constraints have been overcome (Raymore, 2002). Therefore, as Raymore suggested, facilitation should not be seen as the polar opposite of constraints, but should be seen as a "comprehensive approach to understanding conditions that enable participation in leisure activities" (p. 41). In fact, constraints and facilitators should not simply provide alternative explanations of participation, but rather work as complementary processes involved with leisure participation.

Raymore (2002) has flipped Crawford's (1991) constraints model and proposed an alternative model, the facilitators to leisure model, to be used in explaining facilitators to leisure. As Crawford's hierarchical model of leisure constraints (1991) identified categories of constraints, Raymore's facilitators to leisure model (2002) identified three categories of leisure facilitators: intrapersonal, interpersonal, and structural. Intrapersonal facilitators represent an individual's "characteristics, traits, and beliefs that enable or promote the formation of leisure preferences," and include elements such as personality, past experiences, and self-efficacy that lead to increased leisure participation (Raymore, 2002, p. 42). Interpersonal facilitators are related to any "individuals or groups that enable or promote the formation of leisure preferences and encourage or enhance participation in leisure." Examples include support from society,

family roles, or peer pressure (Raymore, 2002, p. 43). Structural facilitators are described as those "social and physical institutions, organizations, or belief systems of a society that operate external[ly] to the individual to enable or promote the formation of leisure preferences and encourage or enhance participation in leisure" (Raymore, 2002, p. 43). Examples of structural facilitators include availability of money, opportunity, and facilities/activities, and social-economic status.

Research Framework

Understanding and application of constraints and facilitators models, and of constraints negotiation strategies, has provided useful implications to the underpinning of leisure participation study. It is widely understood that participation in leisure activities for persons with disabilities are the result of complex interactions between multiple factors. Hence, an individual's leisure participation should not be understood as a simple, linear process, but a complex interplay of factors that can be viewed from multiple perspectives. To fully understand participation, we need to be able to grasp the fundamental factors that lie behind an individual's leisure participation and experiences.

It is imperative for us to not only look at individual elements (constraints, facilitators, negotiation strategies), but to view them from a broader perspective, comprehending the role of each factor as well as the interplay adapts, combines, and applies several models and concepts (hierarchical model of leisure constraints, facilitators to leisure model, and constraints negotiation) to try to understand Malaysian PWDs' leisure participation. Based on these underlying foundations in terms of participants' leisure involvement, this dissertation constructs a theoretical framework, as shown in Figure 2. For clarification, it is not the intention of this study to develop a new model. The combination of models in the research framework was

intended to help guide the development of this research. By exploring these concepts together, it is hoped that the results help us understand the relationship between constraints, constraints negotiation, and facilitators with leisure participation.
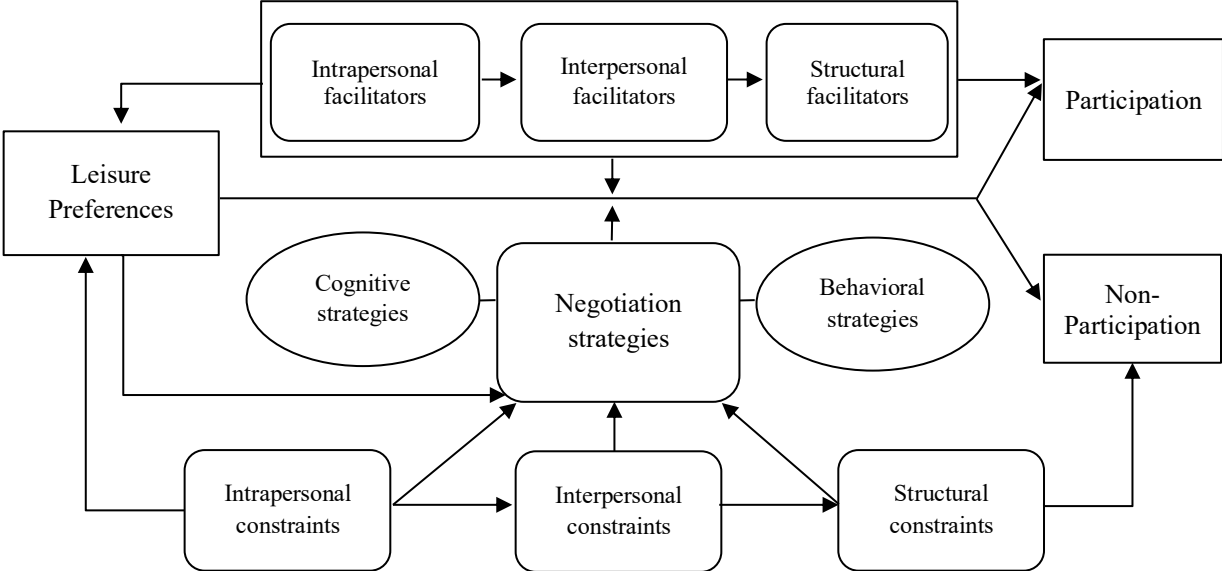
Figure 2: Conceptual framework for this research: Model of constraints, facilitators, and negotiation strategies

Research Paradigm

Identifying a specific relevant research paradigm is an important prerequisite in designing a research study. According to Kuhn (1962), a research paradigm can be referred to as the set of common beliefs about how problems should be understood and addressed in research. Guba (1990) outlined three considerations that reflect the basic set of beliefs in a research paradigm: (1) what is the nature of reality (ontology); (2) what is the nature of the relationship between the knower or researcher and the known reality (epistemology); and (3) how should the researcher go about finding the knowledge being sought (methodology).

Research paradigms serve to inform and guide a researcher about which worldview he or she needs to use to gain understanding of the knowledge, and which methods need to or can be

used as tools to gather evidence for the desired knowledge (Sarantakos, 1998). To have sound research, a researcher must have a clear understanding of their views and values about the known reality of one's research (Crotty, 1998). For this reason, it is essential for a researcher to have a clear research paradigm that elucidates the philosophy that frames the study. By doing so, the researcher is provided with a direction, in the form of an overarching framework, that will help guide them throughout the research.

Social Constructivism

Based on the realization of the importance of seeking contextual understanding, I have chosen to build this study upon a social constructivism paradigm. Given that the study purpose is to examine issues that have received little research attention in Malaysia – the present situation of outdoor recreation experiences and perceptions among PWDs – choosing to use a social constructivism approach is considered appropriate because it allows me to grasp the "insider" point of view directly from the orally shared perspectives of PWDs, not only from the individuals who have personally experienced or been impacted during their outdoor recreation participation, but also from those who have no prior outdoor recreation experiences. In an effort to develop a contextual understanding of issues involved with PWDs' outdoor recreation participation, it is imperative that the views reflect the social, structural, and cultural influences of PWDs in Malaysia. In short, using a social constructivism approach allows the opinions, recommendations, and perspectives of PWDs to be included.

This research is based on my belief that "knowledge and truth are created and not discovered by the mind" (Schwandt, 1994, p. 236), and that there is no single, unique "reality," but only individual perspectives. In other words, as explained by Guba and Lincoln (1989), the constructivist paradigm assumes that there are multiple realities and that researchers and the

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studied respondents, together, create an understanding of the realities – through communication, interpretation, and negotiation – through a dialectical process such as interview or discussion. This process of meaning-making continually shapes how people view their world (Garst, Williams, & Roggenbuck, 2009).

As noted by Schwandt (1994), constructivist research aims to understand "the complex world of lived experience from the point of view of those who live it." With regard to this research, social constructivism is considered to be particularly relevant and purposely chosen as I seek to gain a greater understanding of PWDs through the process of constructing mutual understanding of PWDs, their beliefs, interpretations, and perceptions of meanings and experiences within the reality of their cultural and social context as related to their outdoor recreation perceptions and experiences. Similarly, this approach suggests that the meanings of a constructed reality are the product of the interactional processes involving the individual, the setting, and their social world (Kyle & Chick, 2007).

Qualitative Research Approach

This study is grounded within a social constructivist paradigm, in which experiences and meanings are viewed as personally and socially constructed. An exploratory research approach using individual interviews was employed to establish in-depth understanding of the concepts and meanings of constraints and facilitators for Malaysian PWDs' outdoor recreation participation. The decision for this was based on my desire to allow maximum flexibility in this study, to explore the issue in detail, and to be able to identify and discuss any new themes that might arise (Schensul, Schensul, & LeCompte, 1999). Due to the practicality and suitability of the approach, I used a qualitative research method for data collection and data analysis. This choice for data collection was due to its potential to unveil new meanings and interpretations

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about the research topic that have not yet been explored in any previous study (Cohen, Manion, & Morisson, 2007; Johnson & Onwuegbuzie, 2004), particularly within the Malaysian context.

This approach allowed me to collect data with an open mind without being constrained by any a priori assumptions, thus allowing important dimensions of this topic to emerge during data collection and analysis. Moreover, this approach offered a flexible framework, useful in gathering Malaysian PWDs' perspectives, that is rich in context and exploratory in nature (Patton, 1990).

This study is exploratory because little is known about what constitutes the constraints, facilitators, and negotiation strategies that impact outdoor recreation participation among PWDs in the Malaysian context. Therefore, it is important to comprehend the context of PWDs' social worlds as this helped to provide me with a set of meanings that are consequential and significant to the social worlds this study explored (Kyle & Chick, 2007; Scott & Godbey, 1992). In this study, I conducted in-depth interviews to explore and examine the meaning of concepts (e.g., outdoor recreation, constraints, facilitators), perceptions, recommendations, and views related to outdoor recreation participation and experiences, and strategies used or attempted to negotiate constraints. Here, the basis of knowledge and understanding derives from socially constructed meanings, interpretations, recommendations, and experiences within the local context, as gathered from Malaysian PWDs.

CHAPTER 3

METHODS

Overview

The purpose of this study is to explore the difficulties, challenges, and factors that enable or inhibit participation in outdoor recreation activities among persons with disabilities, and to better understand how the concept of accessibility can be applied to improve the provision of accessible and suitable outdoor recreation opportunities in Malaysia. Thus, to understand the needs and challenges faced by the Malaysian persons with disabilities community, this study explored Malaysian PWDs' perceptions of outdoor environments and outdoor recreation, the constraints and facilitators related to their outdoor recreation participation, and strategies they may have used to negotiate constraints. To address this purpose, this study utilized a qualitative research approach by engaging respondents in face-to-face guided interviews.

Qualitative research design uses a systematic approach that seeks an in-depth understanding of social phenomena within a specific context. Although there are many types of qualitative approaches (e.g., case study, phenomenology, grounded theory), they shared a common characteristic that all allows the researcher to study specific and complex issues in-depth and without constraints of a pre-determined structure for analysis or result. This present study adopted a qualitative approach to understanding the perceptions of PWDs about outdoor recreation, their meanings, and experiences related to personal participation in outdoor recreation.

While this study is primarily inductive, it is not purely inductive. Rather, I incorporated sensitizing concepts in my inductive analysis to shape my study in exploring the issue in detail, as it is seen and experienced by the participants without pre-determining those viewpoints. As

suggested by Charmaz (2003), the use of sensitizing concepts provides a starting point from which the researcher can start building analysis. Sensitizing concepts are "background ideas that inform the overall research problems and offer a way in which the researcher can see, organize, and understand the experience" (Charmaz, 2003, p. 259). It is important to note that, although sensitizing concepts may guide the researcher about which ideas to consider, they do not constrain the research based on any a priori assumptions, nor do they hinder the emergence of any new concepts or ideas during data collection and analysis.

Based on this strategy, I included the sensitizing concepts in my research that reflect the conceptual frameworks from the integrated constraints, facilitators, and negotiation strategies models. While grounded theory helped me to explore and understand social processes within my study context, the use of sensitizing concepts helped guide me in observing the occurrences of a phenomenon related to my conceptual framework. As Bowen proposed, the used of sensitizing concepts "can be effective in providing a framework for analyzing empirical data and, ultimately, for developing a deep understanding of social phenomena" (p.20).

Because qualitative research addresses issues of rigor differently than in quantitative studies, elements of credibility, transferability, and dependability, within the construct of trustworthiness, are described below to provide the foundation for choices I made regarding data collection and analysis.

Trustworthiness

The concept of trustworthiness in qualitative research is valued differently from that in quantitative research. This is because, as suggested by Yilmaz (2013), qualitative research is different in its ontological, epistemological, and theoretical assumptions. Following Lincoln and

Guba (1985), the rigor of qualitative methods is reviewed through credibility, transferability, and dependability.

Credibility

Credibility in qualitative research refers to the truthfulness and accuracy of the data. Patton (2002) suggested three distinct components that contribute to research credibility: (1) rigorous methods that aim to acquire rich and thick data; (2) credibility of the researcher, in terms of experience, auditability of data, work ethics, and the predispositions and biases of the researcher toward the study; and (3) research paradigms, in terms of philosophical views in the value of qualitative research. At the same time, credibility of the sample also needs to be considered (Flick, 2009).

In ensuring the credibility of my research, I used a systematic data collection procedure. All processes were systematically documented to ensure that they are traceable for future auditing. The data-gathering process was in the form of audio recording and note-taking (jotting). The purpose of audio recording is not only to ensure unbiased and accurate raw data transcription, but also for ease of analysis purposes. In addition, summary notes and memos were created to capture accurate details of the descriptions, insights, and nuances obtained during the interview, which was done during and right after each interview. This is essential as it is found to be useful as remarks and reminders of any cautions about inconsistencies, and for further clarification regarding the topic of discussion.

An important process in assuring the credibility of the data sources is by cautiously selecting the research participants. I addressed this concern by utilizing purposive and snowball sampling techniques. This approach allowed me to select participants who are information-rich and have experiences with the phenomenon of this study (Cresswell & Plano Clark, 2011;

Patton, 2002), which, in my case, are Malaysian adults aged 18 and older, having at least one physical disability or loss of vision, and have the ability to articulate their perceptions, feelings, experiences, and recommendations. Additionally, it helped me avoid choosing quiet or inarticulate participants as respondents (Shenton, 2004).

Another concern related to credibility is potential misinterpretation of data. To minimize potential for data misinterpretations, this study adopted a member-checking review process in which participants had the opportunity to check the accuracy of the raw transcriptions, and to ensure that they accurately reflected their viewpoints (Lincoln & Guba, 1985; Shenton, 2004). However, due to time constraints and technical difficulties, I could not complete the member checking review process. I only manage to communicate with half of the interviewees, in which I meet during the second meeting.

In conjunction with this, I used an "external auditor" (Yilmaz, 2013), a "peer scrutiny" technique (Shenton, 2004), to address distortions in the findings (intecoder reliability check). The combination of both techniques (i.e., member checking and external auditor) enabled me to check for biases and inconsistencies, as well as provided fresh perspectives to the study (Shenton, 2004; Yilmaz, 2013). In this case, an academic staff member from a local Malaysian university was appointed as the external auditor. This selection took into consideration the background of the auditor who understands the issue and was able to provide critical assessment about the research within the Malaysian context. For this, I requested the auditor to review the decision points throughout the interpretation process, which included confirming or disconfirming emergent themes.

Transferability

      In qualitative research, transferability is the term used to explain external validity

(Lincoln & Guba, 1985). It refers to the applicability of study results to other similar settings or

groups. As outlined by Yilmaz (2013), to permit transferability, a study should provide a "thick

description of the setting, context, people, actions, and events" (p. 320). In addition, the

boundaries of the research also should be explicitly drawn (Marchionini & Teague, 1987;

Shenton, 2004) to allow for comparison that enables readers to determine whether this study

applies to their study's setting(s) or population(s).

      Hence, to promote transferability, I deployed two conventional strategies. The first

strategy was using in-depth descriptions (Shenton, 2004; Yilmaz, 2013). For this, I ensure that I

recorded thick and accurate descriptions of the setting and population being studied. This study

set boundaries, focusing specifically on individuals having disabilities that fit the delimitations

criteria of this study. In addition, the final report provides relevant information about the socio-

demographic backgrounds and other characteristics of the respondents. Secondly, I employed the

maximum variation type of purposive sampling, with the purpose of selecting a representative

group of respondents (Suri, 2011; Teddlie & Yu, 2007). Deploying this strategy helped increase

the transferability of my study results (Teddlie & Yu, 2007) while enabling holistic

understanding of barriers, constraints, facilitators, and constraint negotiation by Malaysian

PWDs related to their outdoor recreation participation (Suri, 2011).

Dependability

      Dependability refers to the consistency of the inquiry process and the reproducibility of

the results. Lincoln and Guba (1985) use the concept of dependability to refer to reliability in

quantitative studies. However, in a qualitative study, this "analogy" should be used with the

consideration and understanding that the social world is constantly changing. Additionally, Lincoln and Guba (1985) stressed the close association between dependability and credibility to the extent that without credibility there will be no dependability.

To ensure dependability, I implemented the audit trail procedure (Bloemen et al., 2015; Flick, 2009) by systematically recording in detail every action and process used in this study. This audit trail procedure enables this study to be independently audited and reviewed in the future (Yilmaz, 2013), and is crucial for accuracy and consistency testing (Patton, 1990).

Addressing Issues Related to Use of Two Languages

This study was developed as multi-lingual research because the interviews were conducted in two different languages, English and/or Bahasa Melayu (Malay). As highlighted by Sutrisno, Nguyen, and Tangen (2014), one of the challenges of a multi-lingual study is to ensure that there is no error in translation and that the details of the data remain intact during the translation process. To maintain the accuracy and integrity of a study, I employed a rigorous and systematic translation procedure (Nurjannah, Mills, Park, & Usher, 2014) that included forward and backward translation of both the interview guide and the transcriptions.

For this study, the target language was Malay, and the source language was English. Forward translation is the translation process from the source language to the target language, while the backward translation is from the target language to the source language (Nurjannah et al., 2014). The translation process in this study had two phases, before the interview and after the interview.

Interviews were conducted according to each respondent's preferred language, either English or Malay. Therefore, two versions of the structured interview guide were created before the interview process begins. The original version of the interview guide was prepared in

English. It was then forward-translated into Malay. This interview guide was then back-translated to English (backward translation) by an independent translator to ensure that the meaning and context of the translated interview guide (Malay version) accurately reflected the original English version.

Data from the interview was transcribed as soon as possible after each interview. For interviews using the Malay language, the transcriptions were translated into English. However, due to unforeseen circumstances, I did not manage to do the back translation (to Malay) procedure. This is particularly due to the time-consuming Malay to English translation process that took a longer time than expected since most of the interviews were conducted in Malay. This was further aggravated by the withdrawal of the first independent translator and the time needed to find another translator.

All translation processes were completed with the assistance of an independent translator. Following the language translation and cross-cultural adaptation guideline by WHO (2018), a bilingual translator having a research background, and who is familiar with the terminology of this study's research area, was appointed for the study. Prior to the appointment, I provided a briefing about the purpose of the study, research questions, and instructions for translation. For example, the translation process emphasized the cross-cultural and conceptual context rather than direct linguistic translation (WHO, 2018). To further ensure that the language used reaches the general target audience, consideration was given to the clarity and simplicity of the words, avoiding any technical terms and jargon (WHO, 2018). Also, to ensure the precision and accuracy of the items translated, both the translator and I used the official Malaysian online reference center provided by the Malaysian Institute of Language and Literature, as well as Webster's Malay to English Online Version Dictionary. Both the translator and I conducted the

translations independently. We then worked together to address any inconsistencies found between the two translated versions. Any differences were treated by evaluating the contextual meanings and functions of each word until we reached agreement and consistency.

Site Selection

The chosen area for this study is the Klang Valley region of Malaysia, an area located roughly along the central west coast of Peninsular Malaysia (Figure 3). Covering an area of approximately 2,800 square kilometers, the region is considered one of the most developed regions in Malaysia, comprising some of the largest and fastest growing cities and towns in Malaysia, including the national capital, Kuala Lumpur, and the new federal administrative center, Putrajaya. Klang Valley residents represent Malaysia's diverse demographics, as it is home to people of various major ethnicities and who have diverse socio-economic and educational backgrounds.

Klang Valley is considered the most developed and populated region in Malaysia. It also holds the most active and largest number of non-government organizations associated with PWDs. This chosen region also includes both developed and underdeveloped areas, in terms of facilities and amenities related to accessibility. This area also contains some of the most popular and most visited parks in Malaysia.

In conclusion, considering all factors, especially the availability of numerous organizations advocating for leisure rights and services provision for PWDs, this region is justified as an appropriate and significant place for the study.
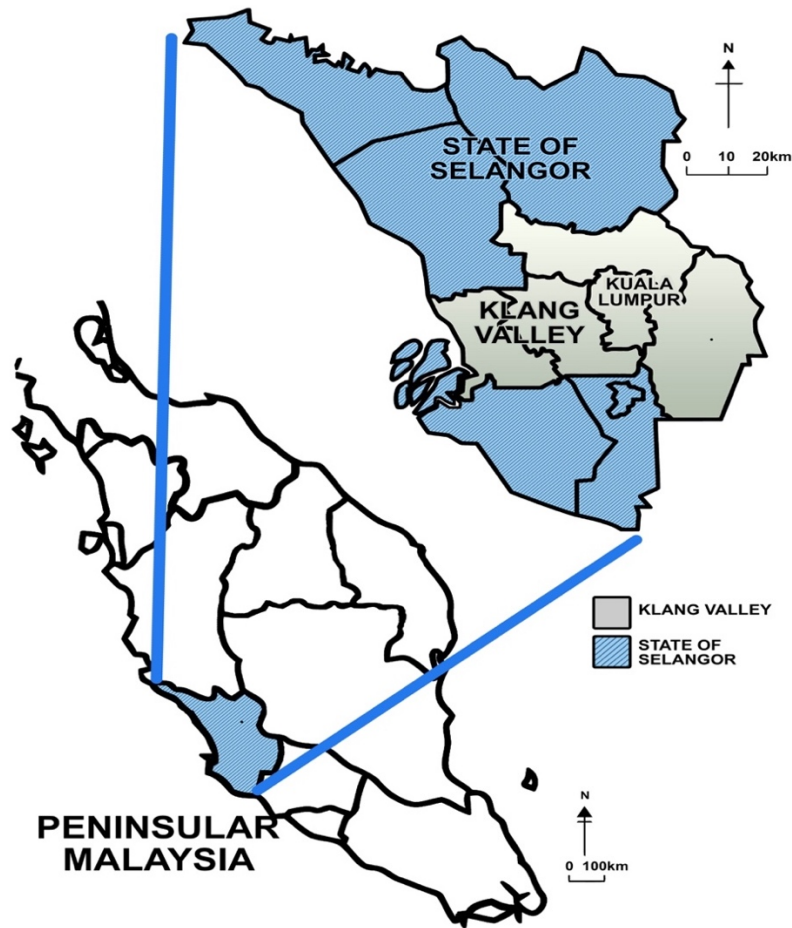
Figure 3: Location of the Klang Valley in Peninsular Malaysia

Sampling

Sample Size

For this study, the number of the interviewees was not fixed. Following Glaser and Strauss (1967) and Patton (1990), the sample size was determined by attaining saturation of content. Saturation occurs at a point when no new substantive data are obtained (Miles & Huberman, 1994), and when any additional data do not contribute to further theoretical insights (Flick, 2009). To ensure trustworthiness of the study, I had to determine the saturation point by considering both the amount of data and the depth of the data (Burmeister & Aitken, 2012). This was accomplished by collecting rich (quality) and thick (quantity) data (Fusch & Ness, 2015).

My interview process was ended when it reached content saturation, when I detected no emerging new data, themes, or codes, and when I noticed evidence of data repetition. Another decision factor in terminating the interviews was based on reaching adequate representation of respondents from each major ethnic group in the Klang Valley area (Malay, Chinese, and Indian), and when I obtained the ratio-based representation of respondents based on different age groups, gender, ethnicity, marital status, level of education, and employment status. Due to the anticipated complexity and sensitivity of the issues related to the social-demographic characteristics and the disability status of the Malaysian PWD community, I allowed for flexibility with ratio-guided representation across the other characteristics.

Participants

Twenty-five interviews were carried out throughout the data collection phase. However, only twenty-one interviews were used as data for this study. The reason for the exclusions was lack of in-depth input received from four interviewees. All twenty-one participants selected for analysis in this study are PWDs who reside or work within the Klang Valley area of Malaysia. All respondents were 18 years of age or older at the time of the interviews and identified themselves as having at least one physical disability or having loss of vision.

Sampling Technique

This study took advantage of the practicality and strength of both purposive sampling and snowball sampling to select potential interviewees. Following Tongco (2007), selection of respondents was based on the type of information needed from the respondents in answering the research questions. For this purpose, I used purposive sampling to help me select participants who were most likely to have rich information and were able to share their insights in detail (Dorsch et al., 2016; Patton, 1990).

I anticipated that it would be challenging to get respondents willing to spend their valuable time to share their thoughts and experiences, especially considering the complexity of the logistics, and the safety and sensitivity aspects involved in dealing with a particularly sensitive group of research subjects. To address this issue, I tried to acquire support and help from established organizations for PWDs around the Klang Valley area. I anticipated that, with the help of these organizations, I could begin to gain trust from the respondents, and use the organization's expertise and experience to ensure representation of multiple characteristics and types of disabilities of potential interviewees. I wrote a letter, sent via email, to related organizations around the Klang Valley area. The letter presented the rationale for the research, an introduction of me as a PhD student-researcher, the purposes of the study, and potential benefits of the study. However, only three organizations responded to the email; two organizations agreed to provide support, and one politely declined due to the tight time schedule.

I then modified my strategy to contact individual personnel from the organizations by phone or their Facebook pages. I received positive feedback from some while others requested that I write a letter about the intent of the research. I also participated in some programs related to or focused on persons with disabilities. Through attending these programs, I started to create rapport with some individuals (both individuals with disabilities and advocates for PWDs) who eventually helped me by giving recommendations for potential individuals who met the inclusion criteria. These advocates even contacted potential interviewees to ask for their willingness to participate in an interview. I then followed up by contacting potential respondents who had indicated their interest and willingness to participate in the interview. Potential interviewees were informed about the background, purposes, and requirements of the study. All potential interviewees were informed that their participation in the interview was voluntary and could take

forty-five minutes to one hour of their time. Once they agreed to participate in the research, I then scheduled the time, date, and location of the appointment, based on their suggestions and convenience.

I found that creating rapport through participating in PWD-related programs and communicating via Facebook were my most useful and helpful techniques for acquiring interviewees. It allowed me to "break the ice" and build their trust. It also provided a means for credential verification. Organizational advocates, who acted as intermediator between potential interviewees and me, also provided significant help.

The snowball sampling technique was employed to identify additional interviewees to ensure that content saturation was achieved. To accomplish this, I asked each interviewee to identify and recommend at least one other person with a physical disability whom he or she thought fit the criteria and could become a future respondent for the study. Finally, each respondent received an incentive, a shopping voucher and a box of chocolates, as a token of appreciation for their time and commitment in completing the interview.

Data Collection

The goal of this study was to explore and examine the concepts of outdoor environment and outdoor recreation, constraints and facilitators to outdoor recreation participation, and strategies for constraint negotiation among PWDs in the capital region of Malaysia. For this purpose, the hierarchical model of leisure constraints (Crawford et al., 1991), the facilitators to leisure participation model (Raymore, 2002), and constraint negotiation strategies (Jackson et al., 1993) were integrated to provide a framework to guide this inquiry (refer to Figure 2). Following Patton's (1990) recommendation of choosing a methodology and methods based on the nature of

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the research questions, a qualitative approach was selected for this study. The following sections discuss the processes involved in this qualitative research inquiry.

Individual In-depth Interviews

Semi-structured, in-depth individual interviews were used as the form of data collection. In-depth interviewing is one of the most appropriate ways of gathering data on phenomena that are not directly observable (McCracken, 1988; Patton, 1989). An individual interview is more than a conversation between two people; it has a structure and a purpose. It is designed to elicit the interviewee's knowledge and/or perspectives on a specific topic. In this study, individual in-depth interviews were used to explore each respondent's beliefs, values, understandings, feelings, experiences, and perspectives about concepts of outdoor environments and outdoor recreation, and constraints, facilitators, and negotiation strategies for their own outdoor recreation participation.

Individual in-depth interviews allowed me to seek explanations for complex issues and understand the contextual factors that govern the socially constructed world of PWDs in Malaysia. Furthermore, this approach helped me discover new, emerging concepts that were unknown prior to this study (Schensul et al., 1999). Following Henderson and Bialeschki's (2002) suggestion for interview procedures, I developed an interview guide to structure the interview process to ensure that the goals of the interviews and overall study were achieved.

Interview Guide Development

The interview guide was developed with the aim of determining PWD participants' perceptions of outdoor environments and outdoor recreation, and their meanings, experiences, and views associated with outdoor recreation participation in Malaysia, both personally and for PWDs in general, and constraints, facilitators, and constraint negotiation strategies experienced

by the interviewee. This interview guide, comprising open-ended questions based on the research questions, was prepared in both English and Malay. To ensure success of the interviews, this guide was designed in a flexible way that encouraged open dialogue and two-way interaction. I avoided using jargon and ensured that all sentences and words used for questioning were in lay language and easy to understand (non-academic).

Based on the literature review, interview questions were developed to address research questions as well as to identify the relevant experiences and concepts (e.g., constraints, facilitators, constraint negotiation strategies, interviewees' recommendations). The interview questions were designed to inquire about PWDs' perceptions, experiences, and reflections, as well as examples of situations, settings, and actions related to their outdoor recreation participation. Although the framework for the study identifies broad categories of constraint and facilitator categories – intrapersonal, interpersonal, and structural – the questions did not explicitly ask respondents about factors related to each of these categories. Rather, I framed the questions using a general approach comprising open-ended questions that allowed the interviewees to talk freely about the subject. This also was done to minimize researcher bias during the interviews, as to avoid any influence on the interviewees' responses. Additionally, probing questions were used to explore issues and comments in more depth, as needed. During analysis, all responses were coded and then, as appropriate, organized according to the broader categories of intrapersonal, interpersonal, and structural.

Each interview started with an overview of the study, consent and confidentiality procedures, and some basic questions for developing a rapport with the interviewee. This was followed with questions that focused on the main research questions, reflecting the objectives of this study. Finally, to ensure that I did not miss any vital information from the respondent's

perspective, I ended the interview by asking the respondent if there was anything else that they wanted to share. This also acted as a gesture to mark the end of the interview.

Pilot Study

A pilot study is important in the process of developing a data collection instrument, interview procedures, and the overall study. A pilot study allowed me to refine my data collection strategies, especially in testing recording equipment, improving my instrument, and practicing procedures for data collection. It also enabled me to identify weaknesses and problems in my initial interview guide.

A pilot study was conducted prior to the main study. I tested my initial interview guide with four pilot interviewees. Two interviews were conducted using each of the Malay and English versions of the interview guide. One English interview was excluded from further analysis due to the inability of the interviewee to provide articulate responses to the questions. Despite this interview data exclusion, I still considered that person's feedback and suggestions regarding the interview content and protocol.

Each pilot interview started with the introduction of the study, purposes of the interview, and the ethical obligation of the researcher. While following all the procedures of an individual in-depth interview, I wrote down notes during the interview as well as reflection memos on "what went well and what did not go well" after each of the interview sessions. These notes allowed me to identify and comprehend the weaknesses of my interview outline and enabled me to reflect on the interview process.

Further, I conducted open coding for the pilot study transcripts to enable me to check for the coverage and depth of the questions, with regard to my main research questions.

Additionally, right after each interview session, I asked each respondent for their feedback regarding the questions, the flow of the interview, and their experience throughout the interview.

Modifications were made to the initial interview guide based on feedback and responses from the pilot study interviewees, as well as based on my experiences, reflections, and findings throughout the pilot test interviews. Based on input about and personal reflections on the interview process, the research protocol was deemed realistic and feasible. However, some modifications were made with specific wording and structure of the interview questions. This was done to ensure that the questions were more coherent and clear to the interviewee and that the questions were more focused and could be addressed within the time allocated. The revised final version of the detailed interview guide can be found in Appendix D.

Main Study

The main study included 21 interviews in total, conducted within five months, from 20 February 2019 through 21 July 2019). Eleven individuals with mobility impairments and ten individuals with visual impairments were interviewed. All interviews were recorded using a digital voice recorder, and each was transcribed verbatim shortly after the interview. To ensure confidentiality of the respondents, all interviewees were addressed according to their chosen pseudonym. The interviews were conducted following all the procedures in the interview guidelines developed prior to the interview session. I obtained either written or verbal consent before conducting the interview. The interviewees with mobility impairments were given a copy of the research background and consent form. I gave a short briefing about the purpose and background of the study while they were going through the documents. Additional explanations were provided to some of the interviewees who requested further clarifications. For individuals with visual impairments, a more thorough explanation was given with regard to the research and

interview purposes. This was to ensure that they fully understood the interview topic, researcher obligations, and the confidential and voluntary nature of the study before providing their consent.

To set the schedule for each interview, I discussed and arranged for a mutually convenient time and date of the interview. For convenience and safety purposes, I let the interviewees suggest the location for their interview. Most interviewees chose public areas such as restaurants, shopping malls, and recreational parks as venues for the interview. However, most of the interviewees with vision impairments preferred to be interviewed in organizational facilities for practical and logistical reasons. The language of interview depended on the preference of interviewees, either Malay or English. The average interview time was one hour, with interviews lasting between forty-five and ninety minutes.

Data Analysis

Data analysis in qualitative research is a continuous, iterative exercise that must be well documented as a process before the data can be analyzed (Miles, Huberman, & Saldana, 2014). Miles et al. (2014) stress that data analysis should be done concurrently with data collection (interweaving data collection and analysis). This approach allows me as the researcher to improve the data collection process, through back and forth thinking about the existing data, and allows implementation of new data collection strategies and crucial corrective measures for data collection. Following Miles et al. (2014), data analysis in qualitative studies consists of four concurrent flows of activity, which are (1) data transcription, (2) reduction, (3) data display, and (4) conclusion drawing/verification.

Data Transcription and Translation

Data analysis began with interview transcription and data compilation. Each audio recording was transcribed verbatim shortly after the interview, while the content was still

"fresh." This was so that I could reflect on and record the senses and nuances of the setting and situation while providing personal interpretations through memos in expanded notes. To ensure the accuracy of the transcriptions, I reviewed all the transcriptions by listening again to the audio. Any errors found in the transcriptions, such as spelling errors, were corrected. Each interview transcription was organized and documented with an assigned pseudonym, which was picked by each respondent. As most of the interviews were conducted in Malay, a considerable amount of time was spent to conduct the systematic translation procedure of forward and backward translation. Using the systematic translation procedure (Nurjannah et al., 2014), the transcriptions were prepared verbatim in the original version, in Malay. The transcriptions were then forward-translated into English. Each was then back-translated into Malay by an independent translator to ensure that the meaning and context of the translated interview (English version) accurately reflected the original Malay version.

After the transcription, the first step of data analysis was to read the interview transcripts thoroughly; important notes were highlighted during the reading. This process was repeated so I could become familiar with the data. For each interview, I wrote a memo to document any reflections, questions, and concerns I had regarding the transcript. Each transcription then was transformed into expanded notes, which was done after reviewing the respective memo and reviewing the recorded audio for a second time. These expanded notes were organized and documented according to the assigned pseudonym for ease of retrieval during auditing. Other relevant and applicable information such as age, sex, ethnicity, educational background, profession, and nature of disability of the respondents was included with the data set under this pseudonym. It is important to note that, throughout the process of data analysis, data collection, note-taking, transcribing, and coding, I was continuously moving back and forth between data

collection and data analysis, thereby interweaving the steps. This was done to allow me to improve my data collection and analysis processes, through back and forth thinking about the existing data.

Data Reduction and Coding

The next step is data reduction, or data condensation, as preferably called by Miles et al. (2014). This process is used to condense the data and make it stronger. It includes a process of selecting, focusing, simplifying, abstracting, and transforming the data. Data coding was done through the process called the Corpus-based method. According to this method, selected passages in the expanded notes that showed evidence of concepts, themes, or ideas were marked and labeled with a unique word or phrase called a "code," which represented the passage's meaning. This process is called "open coding."

To conduct the open coding, I first read through the expanded notes multiple times to familiarize myself with the data. I then highlighted the sentence from the transcripts and coded it with a short word or phrase that represented the sentence. This was done to reduce the amount of information while staying focused on major meanings. To ensure the credibility of the assigned codes, an external auditor from a local Malaysian university was employed to conduct open coding on the same expanded notes. A comparison was made to check for any inconsistencies and discrepancies between the two coding systems. In the case of any discrepancies, both the external auditor and I went through the coded data line-by-line while reviewing the decision points of the coding, further confirming or disconfirming assigned codes.

Data Display

Data display is the process through which the data are visually organized in meaningful ways that help with conclusion-drawing and action-taking (Miles & Huberman, 1984). For ease

of interpretation purposes, I arranged, displayed, and explained the codes through a coding scheme table. In this stage, I segregated and grouped the coded data in the form of a matrix table and according to emerging themes and concepts (axial coding). This was to make it more organized, therefore, easier to be analyzed. Following Miles et al. (2014), these coded data were arranged according to each research question.

The result of the axial coding process was transformed into a coding system that helped to answer my research questions. The coding system was organized using antecedent categories reflecting the research framework model. As an example, in this study, I segregated and assigned the relevant codes into antecedent themes (i.e., intrapersonal, interpersonal, and structural). I then organized them according to categories of perceptions, constraints, negotiation strategies, facilitators, and recommendations. This process has created homogeneity within categories and heterogeneity between categories, which helped to describe the emergent data (Rezaie, Shafaroodi, & Philips, 2017).

To ease the retrieval and analytical process, I arranged these categories vertically in the table, with the explanation and definition of the concept incorporated on the right side of each column. Data display not only allowed me to arrange systematically and present my findings in the same location for answering the research questions (Miles et al., 2014), but also it enabled me to interpret and explain it in terms of the setting within which it occurred (Neuman, 2014).

Conclusion Drawing and Verification

The last step in analyzing data is conclusion-drawing and verification. Conclusion and verification were done after the key concepts were defined, refined, and reduced to reflect the relevance to and focus of the study (Neuman, 2014). However, as stressed by Miles et al. (2014),

all these steps should happen concurrently to allow "back and forth thinking about the existing data and generating strategies for collecting new, often better, data" (p. 70).

For these purposes, I again reviewed my data and codes to identify a higher conceptual level of key concepts. This was done through a selective coding process. After the key concepts were identified and described, I then refined and validated the data by comparing and confirming the findings with the raw data. Also, the findings went through the external-auditing process, in which I consulted with qualified academician and my research advisor.

This analysis process was guided by the theoretical foundation of the study. According to Bowen (2006), sensitizing concepts provide guidelines for research, and can act as a starting point for a qualitative study. These concepts provided me with background ideas throughout the inquiry while simultaneously keeping me sensitive to the meaning of my data. The result advances overriding key variables that described and explained how the outdoor recreation and outdoor environment perceptions, leisure constraints, facilitators, and constraints negotiation strategies influence outdoor recreation participation among PWDs in Malaysia.

Finally, to present my findings, the qualitative descriptive method, in the form of sensitizing concepts, was used to present results along with citations of the original sources, to use in analysis interpretation. I used interviewee quotations, in the form of narratives, to support and illustrate my findings. The aim of this is to provide evidence, as put forward by the respondents, in the form of narrative that is interwoven with the sensitizing concepts, and that allows me to understand the results and context from the respondents' perspectives.

Ethics and Human Subjects Protection

This study acknowledges the ethical concerns that come with acquiring data. Two crucial ethical concerns to adhere to when conducting the research are confidentiality and informed

consent. In addressing these ethical issues, this study has ensured good practice in the conduct and reporting of survey research by adhering to Michigan State University's ethical guidelines. First, the data collection was carried out only after receiving approval from the Institutional Review Board (IRB). Second, informed consent was obtained before conducting each interview, and pseudonyms were used during data analysis and presentation. Consent forms and a cover letter were provided to all participants. This was to ensure that they were fully aware of the objectives and purposes of the research, what the research process requested of them, and how research results will be used. They also were made aware that they could withdraw from the interview at any time. Third, all respondents' anonymity, confidentiality, and privacy were guaranteed. All data are maintained in confidence, stored in locked storage and password-protected computer, and will be destroyed after three years, following the completion of the research project. Data will be used appropriately, adhering to the dissemination protocols from Michigan State University's Institutional Review Board.

CHAPTER 4

RESULTS

The purpose of this study is to identify the perceptions of PWDs about outdoor environments and recreation, their meanings, and experiences related to personal participation in outdoor recreation, the factors that enable or inhibit PWDs' outdoor recreation participation, and strategies they use to negotiate the constraints. This study is delimited to persons with mobility and visual impairments who reside or work in the Klang Valley, Malaysia. Interviewees in this study consisted of eleven individuals having mobility impairments and ten individuals having visual impairments. This chapter summarizes the findings from the data collection. Results are presented in six categories: profile of the respondents, PWDs' perceptions toward outdoor environments and recreation, constraints, constraint negotiation strategies, facilitators, and recommendations. Data collected in the form of interview transcripts were analyzed, then organized into sub-categories according to similarities. In the presentation of results in this chapter, clarifying statements within these themes are provided as an attempt to explicate the respondents' statements as they relate to the research questions, and to represent the context associated with the ways the interviewees have found meaning in their outdoor recreation experiences. Quotations from the interviewees are used to support and illustrate the findings. Short quotes are embedded in the text, and longer quotes are indented and usually contain additional information that provides context for the relevant comment. It is important also to note that individual comments are not always mutually exclusive to a single code or theme. In certain cases, multiple issues may be expressed in a single sentence or narrative idea during the interview. Thus, for the reader's clarification, relevant comments related to a discussed idea are indicated with underlines and, in some limited cases, with bold font.

Respondent Profile

Table 1 shows the sociodemographic profiles of the 21 interviewees. This information was collected to assure representation of respondent diversity across several characteristics of the interviewees. As previously mentioned, interviewees were selected among persons who define themselves as having at least one physical disability or having loss of vision. Interviewees were not necessarily required to have any experience in outdoor recreation activities. However, they needed to be able to share their experiences and thoughts regarding outdoor recreation activities or facilities or the services related to or leading to outdoor recreation activities in Malaysia.

Table 1: Socio-Demographic characteristics of study interviewees

ID	Age	Sex	Ethnic Identity	Marital Status	Education Level	Employment Status	Type of Impairment
Mr. OKU	52	M	Malay	Married	High School	Full-time	Mobility
Waja	55	M	Malay	Married	High school	Retired	Mobility
Linda	21	F	Indian	Single	Pre-degree	Part-time	Mobility
Kerp	43	M	Malay	Widower	High school	Full-time	Mobility
Hadi	25	M	Malay	Married	High school	Full-time	Visual
Anjang	32	M	Malay	Single	High school	Part-time	Visual
Ela	35	F	Malay	Married	High School	Part-time	Visual
Zack	37	M	Malay	Married	High School	Full-time	Visual
Ash	38	M	Malay	Married	Degree	Full-time	Visual
Cik	33	F	Malay	Single	High School	Part-time	Mobility
Jackie	53	F	Chinese	Single	Degree	Unemployed	Mobility
CT	36	F	Malay	Single	Degree	Full-time	Visual
Nur	31	F	Malay	Single	Degree	Full-time	Visual
Uma	31	F	Indian	Married	Degree	Full-time	Visual
Sha	25	F	Chinese	Single	Pre-degree	Full-time	Visual
Cindy	30	F	Chinese	Married	Pre-degree	Unemployed	Mobility
Mr. Fu	29	M	Chinese	Single	Mid-School	Part-time	Mobility
Ali	31	M	Malay	Single	Pre-degree	Full-time	Mobility
Joe	42	M	Indian	Single	High school	Part-time	Mobility
Sam	54	M	Indian	Single	Mid-School	Retired	Mobility
Steven	45	M	Chinese	Single	N/A	Full-time	Visual

Note. ID = Interviewee pseudonym; N/A = Not Available; M = Male; F = Female; Education level = Highest education level completed; Pre-degree = 2-year degree from a college or a technical school; Degree = 4-year college completion.

A total of 21 respondents' interviews were used in this study. Of this total, 57% were male, and 43% were female. Based on disability type, the mobility impairment group represented slightly more than half (52.4%) of the respondents, while the rest (47.6%) represented persons having vision impairments. The interviewees represent diverse ages, ranging from 21 to 55 years of age. The majority of the respondents (47.6%) were from the 21-34 years of age of group. Approximately one-third (33.3%) of the respondents were in the age range of 35-50 years old. The smallest age group (19.1%) were 51-65 years of age. Regarding respondents' level of education: one interviewee did not provide educational background. Of 20 who stated their highest level of education attained, 10% had completed middle school, 45.0% had completed high school, 25.0% completed their university degree, 20.0% had received a pre-degree certificate. Of the 21 interviewees, a majority were engaged in paid working, with 52.4% working full time and 28.6% employed part time. There was less representation of the unemployed group (9.5%) and the retired group (9.5%). Collectively, the interviewees well represent the three main ethnic groups in Malaysia. Slightly more than half (57%) of the total respondents belong to the Malay ethnicity, while the rest comprised Chinese (24%) and Indian (19%) ethnicities. More than half (57%) of the total respondents were single, while the remaining 38% were married, with one (4.8%) reporting being a widower.

Perceptions about Outdoor Environments and Outdoor Recreation

The first research question was to explore and determine Malaysian PWDs' perceptions related to outdoor environments and outdoor recreation. Results are presented in two categories: PWDs' perceptions of outdoor environments and PWDs perceptions of outdoor recreation.

Perceptions of Outdoor Environments

Interviewees were asked about the first things that come to their minds when asking about outdoor environments. The majority of the interviewees responded, expressing concerns about or discontent toward outdoor environments in Malaysia. They reported that their perceptions of outdoor environments revolve around their dissatisfaction with and feelings of inconvenience related to the challenging and inaccessible environments. Other concerns related to the lack of accessible and safety elements in facilities and/or public areas of outdoor environments. They mentioned that they regularly experience barriers such as steps, potholes, or obstructions blocking the pathway.

> Whenever the word "outdoor environment" arises, <u>it always reminds me of the lack of facilities for PWDs</u>. <u>Another thing is about the obstructions blocking the pedestrian walkway</u>, like motorcycles parked on the walkway. They even sometimes parked it on the Braille trail. (Anjang)

> <u>Unfriendly, wheelchair-unfriendly. This is based on my experience as a wheelchair user; when we go outside, you will meet with obstacles such as pavement, which does not have ramps or access to the pavement</u>. …if an individual who is also a wheelchair user wants to go out in the street, they need to use the road instead of the pavement. This can be quite dangerous. (Kerp)

Some interviewees also depicted concerns about needing to have assistance for them to engage in outdoor environments.

> <u>A place that you can do an activity or explore, but you need help and assistance from someone, especially when we participate in any activities related to outdoors or forests.</u> This is because we can do what other people can do, <u>provided that we have assistance. The most important thing is we need to have assistance</u> …if it is a new place for us, <u>we will need people to first brief us and teach us about that place and how to navigate</u>. (CT)

> <u>I consider the outdoor environment as a place where it is not safe to walk, if without any assistance</u>. Even if it is safe outside, and people say it is safe, it is not for people with visual impairments. For people with visual impairments who are new to that place and not used to it, it will still be considered as <u>not safe because they don't know what the obstacles are that await them. There might be obstacles like streets, potholes, uncovered drains. All that worries us</u>. (Ash)

Perceptions Toward Outdoor Recreation

Interviewees were asked about the first things that came to mind when asked about outdoor recreation activities. PWDs perceived outdoor recreation activities as physical activities such as hiking and jogging; some also included leisure activities such as sight-seeing that are suitable to being carried out in open outdoor spaces or recreational parks. For example, some interviewees identified the outdoors as: "Outdoor games or activities that we do in an open area… like horse riding, kayaking, marathon, or jogging. Any physical and leisure activities!" (Nur); "Challenging activities like the things you do in the recreational park or the forest like hiking" (Sam); "outdoor recreation is more like hiking or climbing, swimming, or biking" (Steven); and "Activities… activities like camping and jungle trekking!" (Sha).

Many PWDs presented outdoor recreation activities as those that are physically demanding, challenging, and not feasible for them due to the lack of accessible and suitable opportunities. For example: "In my opinion, physically demanding activities that, if without any assistance, it is not suitable for persons with visual impairments …maybe like jogging, or, if more extreme, like kayaking" (Uma); " It reminds me of activity at recreation parks. …I rarely go to any parks because most of the parks here are not suitable for wheelchair users" (Ali); "…a lot of activities are not suitable for PWDs! Because not all outdoor recreation activities are accessible or suitable to all, including PWDs" (Mr. Fu); and "A lot of recreational places where we often do outdoor recreation activities have steps. So it is not convenient for wheelchair users" (Cindy). Other example:

> Challenging activities like the things you do in the recreational park or the forest like hiking. I can just say this, but not all the activities I can do with a wheelchair. Even if the park has accessible trails, it does not mean that I can access it anytime I want. So, to me, outdoor activities are also challenging. But the challenge is different from the one you might experience. You go there for the "fun

challenges," but <u>for wheelchair users to experience the fun challenges, we need to handle the "accessible challenges" first</u>, and it is not fun! (Sam)

Constraints to Outdoor Recreation Participation

The purpose of the next research question was to determine what constraints PWDs in Malaysia experience as related to their participation in outdoor recreation activities. Constraints, according to Crawford and Godbey (1993), are the factors or conditions that limit or prohibit the formation of leisure preferences or participation. Following the hierarchical model of leisure constraints (Crawford & Godbey, 1987), results are presented by three categories of constraints: intrapersonal, interpersonal, and structural constraints (Table 2).

Table 2: Constraints to outdoor recreation participation among PWDs in Malaysia

Intrapersonal Constraints	Interpersonal Constraints	Structural Constraints
Perceived discrimination	Negative public attitudes	Lack of Facilities
Fear	Lack of social support	Structural barriers
Physical limitation of PWDs	Lack support from authorities	Lack of opportunities
Poor health conditions	Discrimination	Transportation challenges
Lack of motivation	Family responsibilities	Lack of information
Perceived difficulties		Financial restraints
Perceived burden to others		Time restraints

Intrapersonal Constraints

One reason that PWDs in Malaysia have been hindered from participating in outdoor recreation activities is one or more intrapersonal constraints. Intrapersonal constraints are associated primarily with their perceptions of being discriminated against, fearing for their safety, concerns about their inability to perform certain activities, and perceived limitations attributed to their disability. They also indicated intrapersonal constraints as personally having a lack of motivation to participate in outdoor recreation activities, having poor health or health concerns directly or indirectly linked to their disability, and thinking that their physical condition can further deteriorate if they participate in the activities. Constraints also include their perceptions of difficulties or challenges that must be overcome to be able to engage in outdoor

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recreation, and their perceptions of themselves as being a burden to others if they participate in such activities.

Perceived discrimination. Perceived discrimination is considered one major factor that hinders outdoor recreation participation among PWDs. It refers to PWDs' perceptions of an attitude, judgement, or evaluation of unjust or prejudicial treatment by others. Fourteen of the respondents expressed their dissatisfaction with the understanding demonstrated by the public and service providers, and felt that they had been unfairly treated and stigmatized because of their disabilities. This negative feeling has, to some extent, either prohibited or constrained them from engaging in recreational activities. As described by some interviewees: "For those who have no courage to speak for themselves and to fight for their rights, they will only be deceived… meaning that they don't get their rights" (Kerp); "The society seems only to see us from one perspective, that is, people with visual impairments cannot do anything…" (Zack), and "I believe every person with visual impairments has experienced the feelings of being excluded from society. It feels as if we are useless, like we can't do anything, and people will not let us do anything" (Ash). One interviewee explicitly stated that this feeling of being discriminated against often prevents her from engaging in the activities:

> They usually think that we are blind and we are not capable of doing anything. This is the issue! It turns us off, knowing that people have this kind of perception toward us. Because of this, we often prohibit ourselves from participating in such activities. (Uma)

> We don't want people to be biased, saying things like "you cannot do it" or "you are not allowed to participate." I really wish we could avoid this perception. The feeling is more like I'm being looked down upon rather than me feeling inferior. Not that I don't think I can do it, but it is more that our abilities are being underestimated by others! Experiences like this during recreation often made me feel disheartened. (Uma)

They also have the perception of nonacceptance and that they will be discriminated against or will be denied opportunities if they attempt to participate in outdoor recreation activities, particularly if attempting to participate with persons without disabilities. For example:

> The other able-bodied participants – are they ready and open-minded? …are they willing to participate together with us? Because sometimes, we the PWDs are excited to meet them and to participate with the program, but they don't really put their heart to it. They don't do it wholeheartedly. This often makes us feel uncomfortable because we depend on them for their support. If they don't have the passion, it would be an unpleasant moment for all of us. (Nur)

> …because sometimes I don't even think that they would allow us to join! This is especially for those highly popular programs like mountain climbing and such. The organizer will usually run some selection process first …so for sure, we will not be selected! Maybe they don't think that we can do it. (Ela)

> …and also, I don't think people are willing to include us in or to take part in the activities that we are involved in. I believe people, although not all, are still trying to avoid us. Maybe they do not want to play together with PWDs like us. …So, because of this, they try to avoid me. (Cindy)

Fear. Fear is another major factor that hinders them from participating in outdoor recreation activities. It refers to the interviewee's fearful emotional feelings and beliefs caused by actual or perceived danger or threat. Fourteen interviewees have raised concerns regarding their safety and their capability of performing certain tasks during the activities; these concerns have influenced their lack of participation. Some attributed fear to their lack of confidence in executing the activities. For example:

> For hiking, the amputees will probably go and participate, but definitely not me. My disability has resulted in me having a fear of walking up the stairs or hiking. So, without a helper, I will not go to steep terrain, even if it has a proper path or pavement. (Jackie)

> …but now I don't go cycling anymore since [after] I got into an accident. It was quite serious and happened around seven years ago. …since this incident, I never ride a bike anymore. I tried to …but whenever I tried cycling, I always thought about the accident. I was traumatized, so therefore I stopped cycling. (Sha)

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Some fear that if they participate in an outdoor recreation activity, it may endanger their health:

> I did not participate in any of the extreme or adventure-kind of outdoor recreation activities. To me, they are <u>not suitable because of the risk and also my health.</u> Who knows? …<u>activities like bungee jumping or flying fox, they may further damage my already weak legs or place potential risk to my hands. The risk is quite high for me.</u> (Ali)

> …<u>most of them were scared in the beginning</u>. It is not because of the forest, but <u>scared because they might get injured because this activity is quite rough, and people like us, we are not that tough and can get injured easily</u>. (Mr. OKU)

They also attributed fear to the perceived unsafe conditions and uncertainty of the environment. For example:

> <u>I consider the outdoor environment as a place where it is not safe to walk, if [I am] without any assistance</u>. Even if it is safe outside, and people say it is safe, it is not for people with visual impairments. <u>For people with visual impairments who are new to that place and not used to it, it will still be considered as not safe because they don't know what the obstacles are that await them. There might be obstacles like streets, potholes, uncovered drains. All that worries us.</u> (Ash)

> I still think about <u>facilities and safety</u> because, without all this, it is hard for us to move around and participate in any of the activities, right? Not that we cannot move at all; of course, we can go places. However, <u>it will be a bit dangerous and risky for us. We don't know what is there in front of us; maybe there's potholes or other obstacles.</u> (Hadi)

Of the fourteen who raised concerns regarding their safety and their capability of performing certain tasks during the activities, two interviewees reported that the public's fear about helping PWDs is another factor that leads to outdoor recreation constraints. As stated: "they [others] usually are scared that they might injure or hurt me. So, because of this, they try to avoid me" (Cindy), and "The volunteers, normally they have fear …they themselves have a fear of injuries. They were afraid they might get injured while doing the activity, or they might hurt the partner that they are helping" (Steven).

Physical limitations. PWDs in this study have identified their mobility or visual impairment as a limitation that restricts them from executing certain activities or tasks in a disabling environment. Thirteen interviewees have reported experiencing limitations that hindered them from active outdoor recreation participation. As stated: "My experience with regard to recreational activities is quite limited. Both my husband and I are blind. So, this hinders us from participating in any of the activities" (Uma); "Like me, I really don't have this waist strength. If you push me, I will fall down. …This is why I cannot do many outdoor recreation activities because my condition is like that" (Mr. Fu). Other examples are:

> If the place is too crowded, it will be difficult for us to walk around, and the loud noise makes it hard for us to listen to the surroundings. Because we cannot see, we need to depend on our hearing when navigating, especially in a new place. (Uma)

> When walking in the rain, we need to use both our hands: one to hold the walking stick and the other hand to hold the umbrella. It is quite hard, actually, walking like this, in addition to the fact that your hearing becomes less clear due to the sound of the rain and other distractions such as the tires' sound on a wet road. So when it rains, our bearing and sense of direction from sound will become distorted, and it limits our ability to navigate our walk. (Ash)

The interviewees often reported difficulties and limitations that they experienced during their outdoor recreation pursuits. They expressed their need for assistance from others in order to participate in outdoor recreation activities. For example: "But for me to be riding alone, it is impossible, and it can be dangerous. I do need help if I want to go anywhere. I would not do it on my own!" (Hadi); "I don't participate in any other activities because it is hard for me to participate in outdoor recreation activities. I need assistance for me to be able to perform certain things in the activities" (Cindy); "I do like outdoor recreation activities. I wanted to participate in activities like jogging or horse riding, but I can't do it if I don't have any assistance" (Nur), and

"But everything is a bit restricted with this limited vision. That is why it is better to have a guide who can assist me" (Anjang).

Poor health conditions. PWDs reported being hindered from participating in outdoor recreation activities due to their poor health conditions generally, that can be directly or indirectly related to their disabilities. Nine interviewees identified their health status as a factor that directly or indirectly affected their outdoor recreation participation. Some of the interviewees have stated having poor health or health complications, such as experiencing pain, headaches, or having epilepsy, as constraints that make it hard for them to participate in any of the activities. For example: "when I have the pain, the feeling is terrible. When this happens, usually I will refuse to go out and just lay down on my bed" (Mr. Fu); "But, if it is sea-fishing, I am afraid I can't because of my health condition. I'm afraid the headache might come back" (Anjang); and "I never do any physically demanding or extreme outdoor recreation activities. This is because of my health condition. I cannot do any physically demanding stuff" (Linda). Some other interviewees reported that their active participation has been indirectly affected by their health status. For example: "I have epilepsy, so I don't drive anymore. So, I heavily depend on others for transportation" (Jackie), and "I am getting older and not stronger. To handle myself, in and out, the house is becoming more challenging. Sometimes you have pain, and sometimes you are not feeling well" (Sam).

Lack of motivation. Lack of motivation is one of the intrapersonal constraints for PWDs. Lack of motivation may be due to the interviewee's having low interest in the activities due to limited options or opportunities, or them having no partner with whom to participate in the activities. Eight interviewees identified their lack of motivation as an intrapersonal constraint. As shared by interviewees: "if the place is not accessible, there are not many things we can do.

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We might get bored!" and "But if without any friends, no matter how good or special the thing is, we would feel reluctant to go . . . because of having no friends!" (Uma), and "I personally do not really like outdoor recreation activities. …if it is just for the sake of the activities, I probably won't join it. I can say that I am not an outdoorsy kind of girl" (Sha). They also stated lack of motivation to participate in outdoor recreation activities due to low feeling down. For example: "…sometimes you have this kind of feeling like you don't feel like going out" (Ali); "…there was a time when I was feeling down and felt like I didn't want to do anything. …I just stayed at home" (Jackie).

Perceived difficulties. Perceived difficulties refer to the perception of having to face hardships or challenges to be able to participate in outdoor recreation activities. Seven interviewees reported being hindered from participating in outdoor recreation activities due to foreseen known or perceived difficulties. They avoid engaging in any of the activities to avoid negative ramifications. As stated by the interviewees: "if I anticipate any difficulties, I will not go" and "PWDs like us, we would like to have comfort. Anything too challenging for us, we will not go" (Jackie); "…but to go to do outdoor activities, I don't think I can. The activities are tough and demanding" (Sam); "I know this from the fact that many don't want to go out because they know the place does not have PWD toilets, and are not convenient with all the steps" (Mr. Fu); and "As you can notice, most of the time I will avoid constraints! If I feel like there will be too many constraints, I will not do it" (Joe). They also stated their inability to participate in the activities, even if they wanted to, was due to other perceived challenges or obstacles: "The reason why I did not participate in any other activities is that it is not convenient for a wheelchair user like me. Most activities like camping and hiking are not suitable for wheelchair" (Cindy), and

Not applicable to me as <u>most of the outdoor recreation activities are not accessible friendly</u>! I might think of something like strolling in the park, <u>but how many parks are there that can really accommodate people with a wheelchair like me</u>? Even if the park can provide these facilities, w<u>hat about other support facilities like toilets, transportation…</u> ?(Joe)

Perceived burden to others. PWDs were hindered from participating in outdoor recreation activities due to wanting to avoid inflicting burdens on others. Some of the respondents feel uncomfortable seeking help or being too dependent on others during outdoor recreation participation. One interviewee frequently highlighted this issue: "But if possible, I don't want to trouble other people. We don't expect people to provide everything for us," "but if possible, we want to minimize the amount of help needed from other people. We don't want to trouble people" and "It makes me feel uncomfortable; it kept me thinking about needing to rely on someone…" (Kerp). Another interviewee raised the same issue: "First, it was quite difficult because I had to burden other people" and "swimming in the sea is not that suitable for people in a wheelchair, because the area is sandy and it will be troublesome for others to push or carry me around," and "I will need to seek help and trouble others just to help and carry me around" (Cik). Another interviewee expressed that he would rather restrict himself from using a facility to avoid being a burden to others: ". . . we might trouble other people by making them wait longer just for us to get into the bus. So, I'd rather not use public bus services because I don't want to trouble others" (Ali).

Interpersonal Constraints

Interpersonal constraints refer to the presence or absence of social interactions among individuals or the lack of a partner with whom to interact and participate with during outdoor recreation that affects the formation of outdoor recreation preferences and participation among PWDs. Five sub-themes emerged under the interpersonal constraints theme, including negative

public attitudes, lack of social support, lack of support from authorities, discrimination, and personal family obligations. PWDs have been hindered from participating in outdoor recreation activities due to constantly facing negative attitudes expressed verbally or behaviorally from members of the public, such as their misuse of public facilities and parking illegally, thereby blocking pedestrian sidewalks. They also described having difficulties in finding assistance and facing unjust treatment and denial of services by site managers or service providers.

Negative public attitudes. The negative public attitudes sub-theme refers to the public's non-cooperative or inconsiderate behavior, and improper use or act of vandalism toward public properties and facilities. Thirteen interviewees stated being hindered by negative public attitudes that were expressed through verbal comments and behavioral reactions to PWDs. Lack of awareness about the rights and sensitivity of PWDs and lack of courtesy from the public contribute to these interpersonal constraints that Malaysian PWDs face in their daily and outdoor recreation activities. They report continuously having to face public misuse of accessible facilities in recreational and other public areas. Most frequently reported were misuse of accessible restrooms and parking spaces: "My biggest challenge is when I want to use the toilet when the accessible toilet is occupied" (Sam); "Accessible toilets are not supposed to be used by others. If they use it, we don't have any other choice, and need to wait" (Mr. OKU); ". . . because, most of the time, the expensive car owners, they will park their cars in the PWD parking spaces. This is because a lot of normal people misuse this facility" (Mr. Fu), and ". . . some people still are not civic-minded and are abusing the accessible parking spots for their own convenience" (Cindy).

However, obstacles faced by interviewees with visual impairments are more related to the publics' lack of courtesy in public areas, especially with illegal obstruction of sidewalks.

I know we still have the public out there who still lack awareness about PWDs like us. This can be seen with the lack of courtesy with accessible facilities that are meant for PWDs. They park their motorcycles on the Braille track, or the hawkers place their stalls on the sidewalks. All these are potential risks for us. (Hadi)

Another thing is about the obstructions blocking the pedestrian walkway, like motorcycles parked on the walkway. They even sometimes park them on the Braille trail …when this Braille trail is very important for us! We sometimes can fall off because of these obstacles! Obstructions like this should be avoided. (Anjang)

One more thing is with regard to the unethical road users. We, pedestrians, are supposed to walk when the crossing lights turn green. However, some drivers just drive through without stopping, running the red light. This happened to me one time; a motorcyclist just crossed in front of me all of a sudden while I was crossing the road. This has traumatized me ever since. (Ash)

Lack of social support. Some of the PWDs in this study stated that they did not receive enough support from the public and that they have difficulties in getting assistance from the social support network, such as from family members, friends, and the public. Twelve interviewees reported that their outdoor recreation participation has been hindered due to the lack of social support from the public. For example: "I told you that I do not participate in any hiking activities anymore because it is hard for me to get someone who can assist me for the hikes" (Steven), "What I mean is, when there is no one, someone close to me, who is available to assist me. Like if I want to go kayaking, I can't go alone, I need a partner to assist me" (Ash); "Help? For sure, not! If going fishing, all my brothers, they will go first without me. They do not support my intention to go fishing with them" (Anjang), and

I have never participated in any of the school activities like the Boy Scouts or school camping. The opportunity was not there at that time, not yet. …I did ask my teacher one time to join the class trip. But my teacher said it would be difficult for them to handle me. (Ali)

Also included in this sub-theme are constraints related to overprotective parents. This was reflected by four interviewees who experienced resistance from their overprotective parents

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who prevented them from participating in outdoor activities. For example: "Actually I wanted to join the scuba diving activity since many years ago, but my parents stopped me from joining" (Mr. Fu); "My dad, he is overprotective. Not only with this kind of activity or expedition, but he will also try to stop me from travelling" (CT); "My parents, they are a bit overprotective sometimes, not just with OR activities…" (Sha), and "…my parents controlled me a bit. And this is why it was difficult for me to go out" (Anjang).

Lack of support from authorities. Lack of support from authorities refers to interviewees having limited or no technical or programmatic support from the government, local operators, non-governmental organizations (NGOs), professionals, or volunteers in the outdoor recreation programs. Eleven interviewees indicated lack of support from relevant responsible authorities. These constraints were due mostly to avoidance of taking risks or making an extra effort to provide accessible outdoor recreation services, overt denial of services, and inadequate provision of accessible services by managers. Some of this may be attributed to the agencies lack of expertise and experience in accommodating PWDs, or to managers being afraid of being held accountable by the interviewees. As stated: "When you contact them, they for sure will say that it [the park or outdoor recreation facilities] is open for all …but they don't provide a guide or any assistance" (Ela); "Even if we go outside to a place and request to join some activities, they will say that it is not suitable for PWDs and wheelchair users. They are worried it will injure us" (Cindy); "The authorities even argue, saying that the association [for the blind] is supposed to help and protect blind people, not put us in such a risky expedition. Actually, they [recreation managers] tried to block us … [they] halted our intention to climb the mountain" (CT).

Interviewees with visual impairments also expressed their disappointment with lack of support from the responsible authorities regarding information that is accessible or about accessible facilities and opportunities.

> …if we say we don't understand their instructions, they will <u>ask us just to follow the steps and read the instructions from the brochure. This is a problem for us [persons with visual impairments]; how can we understand it just from looking at the brochure [when we can't see the brochure]?</u> (Ash)

> Even with the facilities, <u>if there is no communication from the management and staff, there is no point. It [the facilities/opportunities] are still considered as not accessible to us.</u> For example, let's say you, as a sighted person, want to go to the zoo. You will need to know where is the information center, the location of the toilets, and such, but <u>if the staff does not give their cooperation or cannot provide you with the information, can you get the information? Of course, no, right</u>? And this is even worse for us! (Nur)

To make matters worse, the lack of support from the relevant authorities or service providers often leaves PWDs with no services at all.

> Quite disappointed. At first, we tried to persuade the service operator to allow us to participate, but when <u>they still denied the request</u>, it was disappointing. …<u>they straight away refused us, without trying to find a solution for how they could accommodate us</u>. (Ash)

> …because sometimes <u>they don't have knowledge about how to accommodate the disabled …handling disabled, they will stop providing the service right away</u>. I had this experience when I went to the dive center; when they saw me with my white cane, <u>they straight away stopped me … saying that I could not dive!</u> (Steven)

Discrimination. Discrimination is another constraining factor reported by study interviewees. This sub-theme refers to unjust or prejudicial treatment from others that deprive PWDs of their rights for outdoor recreation participation. Seven interviewees indicated experiencing discrimination and receiving unjust treatment from others due to their perceptions that PWDs are unable to engage in the activities. One interviewee shared: "some of my friends and neighbors, they now know that I can't see; they stopped me from playing with them. They said I could not play with them anymore because I can't see" (Ash). Another interviewee

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revealed: "This is why I feel really disappointed when you used to do an activity, and then suddenly, in the future, people said no because you are blind" (Nur). One interviewee shared the story of her friends being tricked by a provider in one outdoor recreation experience:

> My friends told me that they went to a recreational forest for a jungle trekking activity. During this trip, <u>the owner of that place happened to look down on them and discriminated against them</u>. The owner told them that the jungle that they were about to enter is huge. But in reality, <u>the owner, who was also the guide for the activity, was actually just walking in a circle, over and over again at the same place. He cheated them!</u> The owner did not know that not all were totally blind; some of them still had some vision, and were able to see, although not that clearly. (Sha)

Family obligations. Family obligations refer to interviewees having their participation in outdoor recreation restricted due to the duties or personal responsibilities they have for family members. Two interviewees indicated that family responsibilities and obligations hindered them from participating in outdoor recreation activities. One interviewee reported having constraints due to taking care of his ailing wife.

> The obstacle is the 'situation' that I am facing right now ... my wife, she is not that well; she has health issues, <u>so I spend my time for her ... taking care of her … and taking care of her routine check-up at the hospital. So, I cut my time for recreational activities</u>. (Waja)

Another interviewee reported having constraints due to taking care of her small children.

> <u>Since I have kids, I am not active anymore in terms of outdoor recreation activities</u>. However, I still have the interest to do so! <u>But now, I need to take care of my kids, three of them! So, it [outdoor recreation] is quite difficult for me now</u>. (Ela)

Structural Constraints

Structural constraints relate to the operational or physical factors that indicate limited or non-existence of facilities, amenities, and other support services, which, in turn hinder outdoor recreation participation. Structural constraints comprise seven sub-themes, including lack of facilities and support infrastructure, structural or physical barriers (e.g., steps, potholes), lack of

programmatic opportunities that include accessible outdoor recreation programs and PWD-friendly services, lack of transportation or support services related to transportation, lack of information or inaccessible information for PWDs, and financial/time-related constraints such as inability to participate in outdoor recreation activities due to limited financial resources or busy daily schedules. Of these seven sub-themes, lack of facilities, structural barriers, and lack of programmatic opportunities have been reported as the main structural constraints that hinder PWDs from actively participating in outdoor recreation activities.

Lack of facilities. Lack of facilities refers to inadequate basic or inaccessible facilities, malfunctions of facilities, lack of safety elements, or facilities not suitable or inaccessible by PWDs due to their "non-inclusive" design. Fourteen interviewees reported lack of accessible facilities as a major factor impeding them from participating in outdoor recreation activities. Eleven interviewees use a wheelchair. Among the problems linked with the lack of facilities were the nonexistence of accessible facilities and lack of wheelchair-friendly environments due to poor design, maintenance, and management. One interviewee said:

> I rarely go to any parks because <u>most of the parks here are not suitable for wheelchair users</u>. For some parks that have paved pathways, we can use them; <u>if no pavement exists, then it will be hard for us wheelchair users. Sometimes the resting hut –gazebo with picnic table and bench – is often not accessible by wheelchairs</u>. We can't just rest in the middle of the pathway, right? So, we need to have access to the resting hut as well. (Ali)

> Another interviewee expressed her dissatisfaction with lack of accessibility.

> Because of all the constraints, <u>having no proper access … it makes it harder for me to go to the parks</u>. It makes you not want to go out because of that. It is like a setback, even though you feel like you want to go out; but due to all the constraints, it makes you decide otherwise. (Linda)

> Of those fourteen, eight interviewees identified challenges with public toilets. For

example: "There are not enough accessible toilets in Tasik Titiwangsa Park" (Jackie), and

…mostly the new parks will <u>provide accessible toilets, but not with the old parks.</u> So, if you plan to go to any old recreational parks, you need to anticipate this; you need to plan well so that you will not have toilet-related problems. (Ali)

Interviewees with visual impairments indicated limited or nonexistence of accessible Braille trails or signage, and safety-related aspects of the facilities as their main concerns. For example: "It also has a Braille track… but not all places have one. In general, facilities for vision-impaired PWDs are still lacking" (Anjang), and

Safety with public transport shows that people <u>don't really understand or care to consider whether the public transport is safe enough for us</u> [PWDs], whereas it is [actually] important for us [PWDs]. …<u>aspects such as gaps and curbs at the bus station, for example. All these are considered safety aspects.</u> (Hadi)

Structural barriers. Structural barriers relate to physical or environmental obstacles that limit or inhibit PWDs' access or movement. Thirteen interviewees reported having constraints to accessing public areas or participating in outdoor recreation activities due to some sort of physical barriers. Structural barriers, in this context, include curbs, steps, steep pathways, bumps, potholes, and blocking objects. For example: "… they even blocked the track with huge flower pots just to prevent motorcycle activities" (Mr. OKU); "the pavement has a lot of potholes" (Jackie); "It is hard especially when the condition of the pathway is bad, and it is unpredictable ... with uneven structures and potholes" (Ela); "… the street vendors who open their stalls on the sidewalks, especially on the Braille track. And those who park their motorcycles on the Braille track or sidewalks" (Hadi); "if I want to go camping, I must endure the uneven pavement, potholes, and even off-road tracks" (Cindy), and "There might be obstacles such as streets, potholes, uncovered drains" (Ash).

Study interviewees also identified barriers such as traffic congestion, crowded places, and challenging environments, such as sandy surfaces or bad weather, that limit or prohibit their movement or participation in outdoor recreation activities. As stated by the interviewees: "… to

get to the pond, I need to walk past all the bushes and palm oil trees. You know palm oil trees, they have thorns under the palm fronds. So, it made it quite difficult for me" (Anjang); "Like the beach, it is actually not that suitable because it is sandy and hard for a wheelchair user; also for the waterfall area, as the place is rocky, for sure not suitable" (Cik); "the traffic is really bad, and because of this I avoid going to that event" (Waja), and

> When walking in the rain, we need to use both our hands – one to hold the walking stick and the other hand hold the umbrella. It is quite hard, actually, walking like this, in addition to the fact that your hearing becomes less clear due to the sound of the rain and other distractions such as tire sounds on a wet road. So, when it rains, our bearing and sense of direction from sound will become distorted, and it limits our ability to navigate our walk. (Ash)

Lack of programmatic opportunities. Lack of programmatic opportunities refers to lack of accessible outdoor recreation programs and PWD-friendly services, and when the available outdoor recreation activities are not offered or made available for PWDs. Thirteen interviewees reported that their participation in outdoor recreation activities has been hindered by lack of opportunities. They attributed a lack of opportunities to the limited or lack of accessible outdoor recreation activities or programs available to PWDs. Not many recreational parks offer accessible facilities or access, and PWDs also face denial of services and lack of support from managers due to their disabilities. For example: "if they really are ready, give me the name of a recreational place that does provide accessible facilities for a person with visual impairments – one example? None!" (Nur); "in my opinion, the opportunity for blind people to participate in outdoor recreation activities is still lacking" (CT); "not many public places provide facilities that are truly accessible to people with disabilities" (Linda); "I had an experience with a kayak operator who is not willing to offer their services to us. We can't do anything about it" (Ash), and

…for outdoor recreation activities, <u>the opportunities are lacking. …They don't have the kind of outdoor recreation activities, like the one that I used to join. Programs like that are limited</u>. …programs like outdoor recreation activities, they usually stop at school and university levels! (Ela)

Interviewees also expressed their dissatisfaction with the lack of opportunities due to lack of inclusivity in existing programs. They stated that there are recreational programs or activities, but they are not accessible and suitable. As stated: "not all activities can wheelchair people join" (Sam); "a lot of activities are not suitable for PWDs!" (Mr. Fu); "Most of the outdoor recreation activities are not meant for wheelchair users. They are just not suitable for wheelchair users!" (Cindy), "There are programs out there, but just for the general public. …they don't provide a guide or any assistance [for PWDs]" (Ela), and "no such thing as inclusivity; mostly exclusive like now!" (Uma).

Transportation challenges. Transportation challenges involve having limited or no access to transportation services. The most frequently reported transportation-related constraint was denial of services by taxi drivers. Of eight interviewees, seven reported having difficulties with taxi services. As examples: "I had a bad experience with the taxi, because most of them don't accommodate us people, wheelchair users" (Cik); "Public transportation services before GRAB [ride-hailing transport services similar to Uber/Lyft in the U.S.], was a nightmare! The taxi drivers, they always refused to take wheelchair users. Some of them don't even stop" (Jackie); "… if you use public transport like the taxi, it is a bit of a nuisance. Sometimes they don't want to go to the place that we want to go" (Anjang); "For taxis, if you try to stop them from the road, you will find it difficult for them to stop. Mostly they will be picky, and if they see us with a wheelchair, they won't stop" (Ali); and "… to me, public transport like taxis or buses are more troublesome than helpful" (Joe). Other interviewees also stated having transportation challenges, including the lack of accessible public transport infrastructure, lack of

integration among public transport services, and PWDs' inability to drive a car. For example: "Now, I have epilepsy, so I don't drive anymore" (Jackie); "I don't have any transport, and I can't drive on my own" (Cik), and

> …in general, LRT, MRT, Monorail [integrated rail transit system in Malaysia], and these sorts of transportation <u>can only reach a certain distance. They won't take you to your destination. So, it will be hard for you to go to a certain place only by using this public transportation</u>. (Steven)

Lack of information. Seven interviewees identified lack of information as part of their constraints. This type of constraint includes having limited or no access to information related to the activities or facilities. For example: "This is because, if the information does not reach the specific audience (PWDs), there won't be any activity in which to participate" (Anjang); "I rarely hear about or receive any information regarding outdoor recreation opportunities that are available for us" (Sha); and "They don't provide enough information about the event to the public!" (Mr. OKU). They also reported facing challenges with existing information not being readily accessible for PWDs, especially among those with visual impairments. As one stated:

> For means of information, <u>if they just provide a signboard or brochure for it, to me, they do not really care about us and do not want to involve us in the park's activities</u>. Even sometimes, on paper, they state that the park is open for people of all sorts of backgrounds, but, <u>in reality, when we go there, we can't even access the information. This shows that it is not meant for us!</u> (Nur)

Lack of information also includes the lack of availability of accessible services options, such as whether the place provides guided services or has any accessible restrooms. The interviewees face difficulties in finding out whether certain facilities or existing activities are accessible or not. For example: "many places …they have not yet provided information regarding disabled-friendly facilities" (Kerp), and "Most of the time, in the advertisement, they do not provide the information about whether or not they provide accessible facilities and services or whether they offer the activities for PWDs" (Cindy).

Financial restraints. Financial restraints refer to an interviewee's inability to participate in their preferred outdoor recreation activities due to financial factors. Five interviewees reported financial constraints. Financial constraints included the need to often prioritize their personal spending for non-recreational needs, having low income, and the high cost of the activities. As stated: "PWDs are not rich people, and sometimes we have more important priorities" (Sam); "In terms of money, we have many commitments that we need to prioritize. For sure, we are more than happy to join [outdoor recreation activities] but are unable to due to these commitments" (Ela); and "Sometimes my financial situation and the time of the activity do not permit me to participate in the activities" (Waja). Another interviewee described constraints as related to the high cost of the activities and low incomes of PWDs.

> …the cost is too expensive, and I can't afford it at this moment. You know that PWDs, most of us, do not have a high income; it is hard for us to get a high salary job, or even a job, for that matter. I personally have faced many challenging experiences to find a job. (Ali)

Time restraints. Similarly, interviewees identified time constraints. This refers to an interviewee's inability to participate in their preferred outdoor recreation activities due to difficulties with the timing of the activities or having time limitations. Four interviewees stated that they did not participate in outdoor recreation activities due to having time constraints. Time constraints resulted from having a busy daily schedule, or having either work or family-related obligations. One said: "these kinds of activities usually require me to spend more than one day, and it is hard with kids" (Ela); and another said, "Usually my daily routine is quite packed … rarely [is there time] for any recreational activities" (Uma).

Constraints Negotiation Strategies

This study utilized qualitative research methods to assess if and how PWDs negotiated their constraints before and during their outdoor recreation participation. The research

framework of leisure constraints negotiation was used to guide the research question for this section. According to the conceptualization of leisure constraints negotiation, people do experience constraints for outdoor recreation participation and sometimes find ways to negotiate the constraints. For this purpose, a third research question focused on whether or not the interviewees negotiate constraints to engage in outdoor recreation activities and, if so, what strategies they use to negotiate those constraints. Following Jackson et al. (1993), negotiation strategies are organized by three categories: behavioral strategies, cognitive strategies, and a combination of both cognitive and behavioral strategies. A summary of strategy types, by coding label, is presented in Table 3.

Table 3: Constraints negotiation strategies used by PWDs in Malaysia

Cognitive Strategies	Behavioral Strategies
De-emphasize challenges	Take preemptive action
Accept and cope with challenges	Find alternative action
	Seek social support
	Modify activities

Cognitive Strategies

To be able to participate in outdoor recreation, some PWDs have adopted cognitive negotiation strategies. Cognitive strategies include those in which PWDs change their outdoor recreation aspirations and modify their outdoor recreation participation or expectations to proceed with their pursuits. Interviewees might choose to accept the challenges or constraints, believing that, despite the challenges, the outdoor recreation experience will still be worthwhile. Also, they sometimes might choose to accept and cope with the adverse condition, and proceed with available opportunities while cognitively negotiating the challenges.

De-emphasize challenges. Some PWDs in this study reported they negotiated constraints by downplaying the seriousness of and facing up to the challenges while continuing with outdoor recreation participation. For this sub-theme, interviewees reported that they focus more on the

potential benefits from participation than the challenges. They are willing to put up with the

discomfort of the challenges so that they can participate in outdoor recreation activities. Fourteen

interviewees mentioned that they negotiate constraints by de-emphasizing the challenges. They

consider dealing with the challenges as an acceptable part of the experience either because of

their deep interest in the outdoor recreation activity or because of the perceived benefits that they

would gain from the sacrifices that they made. One interviewee stated: "even if there is no

accessible toilet in the waterfall, I will still go there because I like the activities" (Waja). Others

expressed the same view.

> Even though the road condition is not good for wheelchair user usage, we will
> definitely go again. This is because the people are very nice …we were treated
> with a warm and friendly treatment by the locals. …They greeted us, offered us
> help, and even bought us food even though we didn't ask for it! (Mr. OKU)

> The desire that I have! Sometimes the desire is so extreme that it makes me want
> to do it, regardless of the challenges. It feels like some kind of strength. It makes
> you not think about whether there are any facilities provided or obstacles that
> await …you just want to do it; you are willing to go through all the hardships!
> (Anjang)

Other interviewees stated they comprehended the challenges, but were readily willing to

accept and endure the unfavorable circumstances by downplaying or adjusting to the challenges

while continuing with their outdoor recreation pursuits.

> This place, they don't have accessible toilets. I don't blame them since they might
> not expect people with disabilities like us to go there. So, I cannot say much about
> the facilities. We just need to make do with whatever basic facilities that they
> have …we had to adjust according to the situation there! (Mr. OKU)

> The place is quite okay, considering it has a ramp leading to the beach. The beach
> also has public toilets, but a regular toilet …not the accessible-friendly type, but
> with regular bathrooms. We still decided to choose this place, even knowing that
> they don't have proper toilets for PWDs. We still considered it as suitable because
> this area has a ramp-like pathway that leads to the beach. The ramp looks like a
> place for people to land and launch their boats . . . because the pathway is quite
> wide. (Cik)

I did not do any survey [research the site ahead of time] because we [my friends and I] already know what to expect for places like this recreational forest. We knew that it is not accessible friendly, right? So, what I will do is to be mentally prepared! Since I already know what to expect, what I do is to make sure that I will be able to adjust according to the situation. I will do what it takes in order for me to overcome or adjust to any of the shortcomings or challenges. (Ali)

Accept and cope with challenges. PWDs also reported that they negotiate constraints by accepting and coping with the challenges. Different from the previous sub-theme (de-emphasize challenges) in which the PWDs tried to downplay the challenges, this sub-theme suggests that the interviewees simply accept the unlikely circumstances or unfavorable conditions. They reported that they do not have any choice and need to endure the challenges to make outdoor recreation activities possible. Twelve interviewees identified accepting and coping with the challenges as one of their negotiation strategies. This happens, as interviewees stated, when they have no other choice and have to cope and work through the unfavorable situations to realize their outdoor recreation participation. For some, physical structures constrained or altered their experiences, yet they still chose to participate as best they could.

To be honest, I don't really like this park, in terms of the facilities. I don't think this park has good accessible facilities. Actually, I don't have any other choice. The thing is that not many parks have facilities that I can use or are accessible. You see, not many public places provide facilities that are truly accessible to people with disabilities. (Linda)

If possible, I really hope that we can have one, a proper platform that leads to the beach, because until then, all we can do is just enjoy the view of the sea from a distance. I do wish I could be able to sit on the sand, near the water, just to experience that feeling. (Kerp)

Some interviewees stated that they would proceed with their outdoor recreation pursuit, putting up with the constraints or challenges despite being dissatisfied with the negative treatment that they received from other people because they knew that there was nothing that they could do to change it. For example:

If it is due to the negative stereotype, <u>we cannot avoid what people say about us.</u> Even within my neighborhood, <u>people would say things! You cannot avoid it.</u> Even when I'm riding my bike, <u>people will honk at me and even curse</u>. So, it is hard to say; <u>everything depends on your heart … your mental attitude and willpower! [refers to going to the park]</u> (Mr. OKU)

Of course, <u>I don't agree with it. But there is nothing I can do, so I just moved on and tried to find another taxi</u>. When the driver said he did not want to offer his service, I just <u>found and asked the next taxi</u>. (Cik)

In expressing dissatisfaction with the recreation facility management, one interviewee expressed: "if you don't fix it [the broken restrooms int the recreational center], that is it, I will just live with that [unfavorable condition of the restrooms]" (Mr. Fu). Another example was an interviewee's frustration toward public misuse of accessible public restrooms supposed to be dedicated to persons with disabilities: "… the accessible toilet is not supposed to be used by others. If they use it, we don't have any other choice and need to wait" (Mr. OKU).

Behavioral Strategies

To maintain their outdoor recreation participation, some PWDs in Malaysia try to negotiate outdoor recreation constraints by actively employing a behavioral strategy. Behavioral strategies refer to interviewees seeking or using alternative actions and modifying non-leisure aspects of lives to enable them to participate in outdoor recreation activities. Behavioral strategies include interviewees taking preemptive actions to deter or avoid the challenges, finding alternative actions such as by doing something different from the original plan, seeking support from others, and/or by adapting or modifying the activities. This is demonstrated by observable behavioral changes the PWDs make before or during their outdoor recreation participation.

Take preemptive action. Interviewees reported taking preemptive actions by making preparations, doing research ahead of time, acquiring new skills, or taking specific initiatives or

countermeasures to ensure successful outdoor recreation participation. Eighteen interviewees reported adopting a preemptive approach in dealing with their constraints. To avoid or minimize potential difficulties, they reported planning and preparing early for an outdoor experience, and intentionally identifying specific times in their schedules for their outdoor recreation activities. For example: "I will make sure I am not tired. This is why I am always prepared and like to organize my daily activities" (Linda); "Even if I am not free, … I will make sure that I have time, if I can, to do it in the morning" (Mr. OKU); and "… we will need to plan it as early as possible so that we will be able to arrange our work schedule or apply for a leave earlier in advance" (Hadi).

Many of the interviewees stated that they avoid suspected problematic locations or services as a preemptive action to facilitate their outdoor recreation participation. As most frequently reported, interviewees anticipated difficulties with taxi or public bus services and chose GRAB [online hailing service] instead. For example: "That is why I never use any of the public bus services because I can already see the obstacles!" (Kerp); and "Another way for me to overcome constraints is choosing an alternative or better service. Like, instead of me getting a taxi, I choose GRAB services. It is convenient, friendly, and the fee is reasonable" (Joe); and "… if you use public transport like the taxi, it is a bit of a nuisance. Sometimes they don't want to go to the place that we want to go. That is why I prefer GRAB" (Anjang); and

> For the taxi, if you try to stop them from the road, you will find it difficult for them to stop. Mostly they will be picky; if they see us with a wheelchair, they won't stop. But you will have a better chance if you go to the station where you can find a lot of taxis lining up waiting for customers. You can deal with them and ask who's willing to take you to your destination. (Ali)

Interviewees also reported taking preemptive actions by acquiring new skills and knowledge about the activity.

But to do this, you [PWDs] <u>need to make preparation, [to get] all the necessities</u> [e.g., gear, money, food, logistics]. For you to do the climbing; you <u>need to learn the skills, and know what kind of techniques</u> that will enable you to reach the top of the mountain. (Zack)

…to avoid these challenges, we [PWDs] will usually try to <u>do some research first and call the management asking about their services.</u> We usually will decide based on friends' recommendations; if they say it is okay to go, then we go. (Nur)

Of the eighteen who use one or more preemptive strategies to facilitate their outdoor recreation participation, three interviewees have kept their intention to participate in outdoor recreation activities as a secret from unsupportive family members. As shared by one of the interviewees: "I did not tell my parents about the location; otherwise, they won't let me go" (Sha).

Also, three interviewees with visual impairments reported that they took preemptive measures to avoid potential conflict by using a walking stick. As one interviewee stated:

I still walk <u>using a walking stick. I consider it as insurance</u> … <u>for me to avoid any conflicts due to unintentional bumping into others while walking</u>. This is <u>so that people will know that I have a visual impairment, and they will not blame me in the case of any unexpected incident. So, having this stick is like insurance for me</u> [to avoid unpleasant interactions] by telling others that I cannot see! (Ela)

Find alternative action. Find alternative action refers to an interviewee's reaction to a challenging situation, in which they opted to choose alternate options or do something different from the original plan. Nine interviewees reported finding alternative options to enable their outdoor recreation participation. Examples are taking the alternative jogging route or using other facilities to substitute for the unused facilities. For example: "I won't use their shower and toilet facility, I will straight away go back home to clean and get changed" (Mr. Fu); "… even though they [PWDs] know this park is a bit steep in certain areas, they will still come. They just avoid the steep hill and use the alternate route" (Mr. OKU); and "If things like this happen in a

recreational park [motorcycles parked and blocking the entrance to the recreational park], … I will park my vehicle and go find another entrance" (Sam).

Interviewees may also sometimes try to adapt to the situation by taking alternative actions. This is illustrated when respondents made extra effort to ensure that their desired activity became possible. One interviewee explained his alternate strategy by stating: "I slowly dragged myself until I reached the waterfall area . . . It is very steep. I tried to climb with my wheelchair on my own. So, in order for me to reach the waterfall picnic area, what I did is I applied the zig-zag strategy" (Waja). Another interviewee stated:

> I need to make sure that even if the volunteer does not want to help, <u>I need to find a way to ensure that they will help me! I will try to make the situation easier and more convenient for them</u>, … and show them how much I appreciate their effort to help. That is why, at the time when they give their help, we must also show to them that we have given our maximum effort! <u>I will try as much as possible to make it easier for the volunteers by not totally depending on them.</u> (Nur)

Seek social support. Some PWDs reported that they negotiate their constraints by requesting support from family, friends, or the public in order to overcome obstacles, or they seek technical support from the service provider to make outdoor recreation participation feasible. Seven interviewees reported that they seek support from others. They may persuade friends or convince managers to allow their participation, discuss with the service provider strategies to overcome challenges, or otherwise find solutions to known challenges. For example: "…we decided to proceed, and finished the trail. We managed to convince the guide that we wanted to do it regardless of the "extra" challenges due to the rain" (Sha); "I told them, 'it is okay" because I wanted to try. I tried convincing them until they became positive and finally relented" (Zack); "…[I] ask if there is anything else that can be done that can help change that circumstance, try to convince them" (Uma). Another interviewee explained:

At first, people asked me "how can we kayak?" because we cannot see. Then, after <u>explaining to them that we can do it, provided that they can properly explain to us the technique for how to paddle, and pair us with a partner who is able to see</u>, … together, we can do it. This person can be our guide and sit at the back [of the kayak] while I sit in front and paddle according to his instruction. We complement each other. With this, we also can experience how to kayak. (Ash)

Some interviewees requested help from the public to overcome obstacles: "… we need to wait for other joggers to pass by and ask for their help to remove the blockage" (Mr. OKU); and

But sometimes, the elevator often malfunctions at a certain famous stop. So, <u>I need to ask around for help</u>. People in Malaysia, they don't mind helping, but you <u>need to ask first if you want them to help</u>. So far, I don't have a problem in terms of getting help from people. (Ali)

Modify activities. Some PWDs modified an activity as a way of negotiating their constraints. This was done by making adjustments to the activity to ensure they were accessible and suitable for PWDs. It also included when the PWDs use assistive techniques, tools, or other sensory approaches during their outdoor recreation participation. Seven interviewees reported that they are able to participate in outdoor activities by adopting this approach. For example, some visually impaired respondents took advantage of a tandem bike to make cycling activities possible for them. As one interviewee stated: "With this tandem bike, the person in front must be either a non-visually-impaired person or someone who has a better vision than I… The person in front will take the lead to steer the bike" (Hadi). Some also reported modifying or enhancing communication techniques about the activity to facilitate their participation. Examples included motion signals using multiple senses to explore an area, or using assistive technologies. For example, a diver said: "for him to talk to me, he will squeeze my arm and use motion and sensory signals" (Steven). Another stated:

For example, when we had to cross or climb the cliff, two of the guides would wait for us at the top of the cliff, and the rest would help us from below. They would assist us while giving instructions on where to step, what to hold, and how I should move during the ascent. …Every time, in this kind of situation, my

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buddy already knows what to do …<u>he will assist me, describe to me the situation, and let me touch or feel the wall of the cliff, to give me a better understanding</u> of how steep the wall is. (CT)

One interviewee also shared an example of making creative adjustments at the time a

challenge is encountered, based on situation presented. She stated:

But for me to use the toilet, <u>what I do is I will put a chair inside the toilet and climb the chair,</u> leaving my wheelchair outside the toilet. <u>By doing this, I will be able to go inside the toilet by myself, without any help</u>. (Cindy)

Combination of Cognitive and Behavioral Negotiation Strategies

Almost half of the PWDs in in this study negotiated outdoor recreation constraints by

adopting a combination of cognitive and behavioral strategies to ensure their outdoor recreation

participation. For reader clarification, in the reported sample narratives, cognitive strategies are

underlined, and behavioral strategies are indicated with the bolded font.

Ten interviewees reported using some combination of cognitive and behavioral

negotiation strategies, some using more than one combination (Table 4). All ten interviewees

used the "de-emphasize challenges" cognitive strategy together with one of the behavioral

strategies (finding an alternative action, seeking support from others, or taking a preemptive

action). Of these ten interviewees, only two reported to also using "accept and cope with

challenges" cognitive strategies to negotiate their outdoor recreation constraints.

Table 4: Combination of constraints negotiation strategies used by the interviewees

Cognitive Strategy		Behavioral Strategy	Frequency (n=10)
De-emphasize challenges	+	Find alternative action	8
Accept and cope with challenges	+	Find alternative action	1
De-emphasize challenges	+	Seek social support	1
Accept and cope with challenges	+	Seek social support	1
De-emphasize challenges	+	Take preemptive action	2

Eight interviewees used a combination of a cognitive and behavioral approaches by

cognitively de-emphasizing the challenges (cognitive approach) and finding alternative actions

as a way to accommodate the challenges (behavioral approach). Interviewees reported

cognitively de-emphasizing the constraints they faced, by saying: "it is not a big issue" (Mr.

OKU); "…I am okay with it" (Sha); and "it is not that difficult for me" (Jackie). Then each

would proceed with an alternative behavior to address the constraint, making statements such as

"we can still park at any parking space" (Mr. OKU); "If people look at me, I will look back"

(Sha); and "I can still stand up [without support of wheelchair to climb a few steps]" (Jackie).

Another example from an interviewee who adopted a combination of cognitive and behavioral

negotiation strategies is:

> For example, my friend invited me to Port Dickson [a beach town]. I asked him, "where will we stay at?" and he said, "I don't know yet." I don't even think about accessibility [cognitive]; I just go. **If the hotel is not wheelchair-friendly, we take the business elsewhere** [behavioral]. (Kerp)

Two interviewees sought support from others (a behavioral strategy) in combination with

a cognitive strategy. For example, one interviewee combined de-emphasizing challenges (a

cognitive strategy) with seeking support from others (a behavioral strategy):

> Also, **if I have friends who can assist me, I can hold his hand and just follow his lead** [behavioral]. So, people with visual impairments also can skate… because the skill is not in the eye. It should not be a problem. Eyesight is not an obstacle! [cognitive] (Ash).

Two interviewees used both cognitive and behavioral approaches by de-emphasizing

challenges (a cognitive strategy) in combination with taking a preemptive action (a behavioral

strategy) to negotiate participation. For example, one stated:

> To overcome this challenge, I will push myself [cognitive]. For example, **I will go to the Internet and learn from the videos on how other PWDs and wheelchair swim** [behavioral] What are the techniques and adaptations that they need to acquire swimming skills. (Mr. Fu)

Another interviewee stated:

Actually, I was not confident at first. I'm worried whether I can do it or not. Luckily, the instructor is quite good. The explanation was done quite well, and I managed to convince myself [cognitive]. **After the training** [behavioral] I didn't have any more doubts or fear. I didn't know how to swim before, so **I learned everything during the pool sessions. We have training sessions at the pool before the actual diving trip. So, we learned all the basic things first, including swimming** [behavioral]. …It is not that difficult for you to **learn how to swim** [behavioral] as long as you are not scared [cognitive] of it, you will be fine. (Cindy)

Facilitators to Outdoor Recreation Participation

The purpose of the fourth question was to identify facilitating factors that help PWDs participate in outdoor recreation activities. Raymore (2002) proposed leisure facilitators as "factors that are assumed by researchers and perceived or experienced by individuals to enable or promote the formation of leisure preferences and to encourage or enhance participation" (p. 39). Following Raymore's (2002) facilitators to leisure participation model, the results of this section are presented in three categories: intrapersonal, interpersonal, and structural facilitators (Table 5).

Table 5: Facilitators to outdoor recreation participation among PWDs in Malaysia

Intrapersonal Facilitators	Interpersonal Facilitators	Structural Facilitators
Perceived benefits	Social support networks	Availability of accessible facilities
Self-efficacy	Positive social interactions	Supportive technology/tools
Self-advocacy	Support from authorities	Availability of opportunities
Preparedness for challenges		Accessibility of information
		Convenient, accessible transportation
Past experience		Financial ability or support

Intrapersonal Facilitators

Intrapersonal facilitators refer to PWDs' physiological or psychological states and characteristics that enable or help facilitate their outdoor recreation participation. Five sub-themes emerged under the intrapersonal facilitator category. Some of the PWDs identified the perceived benefits that they hold toward outdoor recreation activities and their self-efficacy as the main intrapersonal facilitators that help support their outdoor recreation participation.

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Facilitators also include the capacity they have to anticipate and make necessary preparations as well as their ability to advocate for themselves to ensure successful participation. They also identified previous experiences they had, such as early exposure and skills that they learned throughout their lives, as factors that help them to participate in outdoor recreation activities.

Perceived benefits. Perceived benefits refer to the perception of the beneficial or positive consequences resulting from participating in outdoor recreation activities. This was shown when the interviewees expected or noted rewarding, positive, or beneficial experiences from the outdoor recreation participation. Perceived benefits of outdoor recreation participation were considered as one of the factors that facilitate PWDs in their outdoor recreation participation. Of the twenty-one interviewees who participated in this study, twenty stated that they anticipate benefits from their participation that helps facilitate their participation in outdoor recreation. Many of the interviewees perceived that they have gained a multitude of benefits, such as the opportunity to learn new skills, socialize with friends and families, engage in the society, develop self-esteem, and relieve stress as result of outdoor recreation participation. Because they strongly and positively value these perceived outcomes, they are willing to negotiate other challenges to be able to participate. Among the most common benefits reported by the interviewees is that they have gained new and meaningful experiences from their outdoor recreation participation.

> I consider it as something <u>rewarding to me</u>, because when you go out to the park, and it has beautiful scenery, <u>we look at it and we appreciate it. It is like a reward or benefit that you get by going out and participating in the activity</u>. (Waja)

> You can <u>learn and experience new things</u>. For example, during the Mount Tahan expedition, I <u>had the chance, for the first time, to listen to sounds that I have never heard before</u>. Even when I went to the zoo, I did not hear this kind of sound. And, of course, you <u>learn new skills …in fact, you can learn something new every time you participate in an activity</u> …like <u>learning how to handle yourself when you are tired, learn about animals and plants</u>, where <u>you can even touch the plants. I also</u>

had the chance to appreciate how big is a tiger by touching its footprint. Now I realize how big a tiger is! So, for me, recreation activities are not just for fun; each of the activities should be a learning process that gives us new experiences and knowledge. (CT)

Being in the water [scuba diving] makes you feel very relaxed; I feel like I am going to another world. I can feel the water, whether it is rushing toward me or not, and I can hear the surroundings. For me, to be with other PWD scuba divers, I feel very happy. (Steven)

Some other interviewees stated that participation in outdoor recreation activities provided

them with fulfilling experiences and a sense of accomplishment.

Thank God, I did manage to reach the summit of Mount Brinchang [6666 ft a.s.l]. All of a sudden, I noticed tears suddenly flowing. I felt satisfied because it felt like I've conquered the mountain, despite my shortcomings! The feeling when your friend said to you, "okay, we are now on the summit!" is so satisfying! (Zack)

One of my best experiences was when I managed to reach the targeted destination during my cycling trip. For example, when I reached the top of Genting Sempah rest stop [a drivable mountain pass], I proved to myself that I could also do what other able-sighted people can do! … after you reach the top of the hill, all the negative thinking disappears. It gives you satisfaction! This good feeling will tell yourself never to give up, even if reaching the top of the hill means you have to face hardships and many challenges. (Hadi)

They also mentioned that, through outdoor recreation participation, they had gained the

opportunity to spend some quality time with friends or family, get exposure, and to socialize

with other people. For example:

I also like to go out and spend quality time with my family and friends. We will go to shopping complexes or recreational parks. And also, I like to meet people ...and gain new experiences. This kind of activity makes me want to go out more often. (Linda)

With our involvement in outdoor activities, we will be able to expose ourselves to other people out there. We can show them that we can also do what they can and that we are not much different from any of them. Another thing is we can enjoy ourselves, socializing with friends. It is different if we stay at home, surrounded by the same people, and nothing much that we can do or learn. But if we go out and explore, we can learn many new things. (Ali)

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The interviewees also reported experiencing a multitude of benefits such as having

opportunities to exercise, relieve stress, enjoy the scenery, and maintain a healthy lifestyle. As

expressed by one interviewee:

> You can do it as an <u>exercise for your health or leisure to relax and release tension</u>.
> For me, <u>I like to relax and to look around. Look at different things, like trees or
> the scenery, or people.</u> You can also hang out with friends and be socialized.
> These are also <u>benefits</u>. If you are out of your house, you can feel like you are part
> of the bigger community. You can interact with people and look at people's
> reactions. So, in general, it is good. <u>You can have a healthy body and mind</u>. (Sam)

Self-efficacy. Self-efficacy refers to an interviewee's belief in his or her own ability to

succeed in completing tasks and reaching goals. This was represented when the interviewees

indicated a sense of confidence in their ability as a result of seeing others achieving success.

Self-efficacy is reported as another major factor that facilitates outdoor recreation participation

among PWDs. Eighteen interviewees reported relying on their self-efficacy to overcome the

challenges and fear associated with their outdoor recreation participation. Some interviewees

attributed self-efficacy to their self-determination and positive attitude toward the difficulties that

they were facing.

> For me, <u>I considered the obstacles that I faced for me to reach the picnic area as
> an adventurous and challenging experience. I want to challenge myself, "if other
> people can do it, why I can't? I want to try, too"</u>! After you try it for the first time,
> you will want to do it the second time. (Waja)

> For me, when I am already committed to doing one thing, for example, join an
> expedition like this, <u>I will make sure I will do it 'til the end. I would never
> withdraw or give up</u>. Of course, there are times you do not like, like when it is
> raining, and the ground is slippery and muddy, and it makes it hard for you to
> walk. Also, with the leeches. But <u>all these are only small obstacles for me</u>. (CT)

> <u>I did everything by myself without any help</u>, everything from wearing the safety
> jacket [buoyancy aid] to entering the kayak, up to handling the kayaking. I did get
> nervous when they [the instructors] asked me to kayak on my own. At that time, I
> asked myself whether I could do it or not. Because I have never done it before. I
> then decided just to give it a try, because <u>when I see other people do it, it doesn't</u>

look that hard. So, I think I also can! …So, even without a partner, I just do it, because when other people do it, I feel like I want and can do it, too. (Ela)

Self-efficacy was expressed when the individual viewed themselves as no different from others and looked forward to outdoor recreation opportunities. As described by some interviewees: "I wish to let others know that we, PWDs, can also do what other people can normally do" (Ash); "Actually, camping for a person with visual impairments is not a problem. We can do everything that other sighted persons can, provided that they give us a clear instruction on what to do and how to do it" (Nur); and "This visual impairment of mine does not hamper my outdoor recreation participation, there are many things I can do provided that I have the assistance of a guide" (Hadi). Some interviewees described their self-efficacy ability by being optimistic when facing challenges and having confidence in their ability to succeed.

> For the facilities, if we want to talk about them, there are many shortcomings. But we need to overcome all the shortcomings in our own ways. If you were to focus on the weaknesses, there are lots of them. But the thing that we should focus on instead is how to overcome these weaknesses. For all the difficulties, if I can get past or through it, I will consider it as not a problem anymore. I believe the things that are lacking are in me; I was trained like this by my father. He said to me, do not make your loss of vision be an excuse. (Zack)

> All the problems can be handled, especially if you have a partner who knows how to handle those situations. And these problems usually occur before the activity. Because during the activities themselves, all these obstacles can be considered as the challenges that enrich the experiences. (Ash)

> My visual impairments have never hindered me from participating in outdoor recreation activities. Because, although I cannot see, I can still feel by touching, and I can even recognize and distinguish the surroundings. With the help of an assistant, I am confident that I can accomplish any sought-after outdoor recreation activities. (Sha)

They also attributed self-efficacy to their ability to acquire new skills. For example, one interviewee explicitly described his experience of overcoming the difficulties of swimming by learning new skills.

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I did feel a little bit of fear before the scuba-diving activity. To me, learning how to swim was the most difficult and scariest part. I kept drinking the water because I didn't know how to swim before, even before the car accident! …To overcome this challenge, I pushed myself. For example, I went to the Internet [YouTube] and learned from the videos how other PWDs and wheelchair users swim. What are the techniques and adaptations that they used for them to be able to swim. (Mr. Fu)

Self-advocacy. In the context of this study, self-advocacy refers to the action of representing oneself to make outdoor recreation participation possible. Nine of the respondents reported self-advocacy as facilitators to their participation. Some of these interviewees practiced self-advocacy by being persuasive and persistent in requesting assistance and support from others, or when negotiating terms of service or requesting approval from a service provider. For example: "I persuaded my friends to let me join them in the hiking expedition until they became positive and finally relented" (Zack). Other examples are:

I made the request after I had gathered all the information that I needed. I explained to the service provider and made them understand that we [PWDs] can participate in white water rafting (WWR) activity, too. I had first to gain their [the operator] trust. I wanted to prove to other people that we, people with visual impairments, can do it, too. When we went there, the operators first explained to us the requirements and challenges that should be expected in WWR activities. I then explained and convinced them that we can face them. (Ash)

Looking at the situation, with the struggle that we are facing and our slow pace, our hiking guide advised us to turn back and call it a day. But, after we discussed it among ourselves, participants with visual impairments, and the sighted volunteers, we decided to proceed with the hiking activity and completed the trail. We managed to convince the guide that we wanted to do it regardless of the "extra" challenges due to the rain. (Sha)

Another interviewee exemplified how she advocates for herself by initiating good rapport with the guide by starting conversations, showing appreciation, and using diplomacy to request for cooperation from the guide.

I am used to socializing and engaging with the public, I will just jump in [into their conversation]; I don't mind whether they are sighted or not, I just try to

approach and blend in. This is why I do not feel isolated or estranged during any activity. (Nur)

In the situation when one of us is tired, good diplomacy and communication is needed to make sure that we can stop for a rest. (Nur)

Sometimes I happen to have a partner that does not want to talk to me …maybe he is a quiet type of person. I try really hard; try to think about how I can make him talk to me and make conversation. So, what I usually do is, if he is a friendly and chatty type of person, I will listen when he talks, and if he is a quiet type, I will do the talking. This is my strategy to make the activity become smoother and occur in a friendlier setting. Then only can we both play our roles during the activity. (Nur)

The PWDs also use self-advocacy in exercising rights and entitlement for participation.

I got this experience when I went to a dive center, and when they saw me with my walking stick, they straight away stopped me and said that I could not dive! Then when I showed them my scuba diving license card, they said okay. (Steven)

Since nowadays I have more confidence compared to before, I called the management and asked them to build a ramp so that I can go to my hotel balcony. I did this because I had been convinced [by the hotel management] that the hotel does provide disabled-friendly facilities and that I can experience the "sea view from the balcony," as promoted by the hotel. I'm now upholding my right! (Kerp)

Self-advocacy also includes when the interviewees simply request help from others: "I will usually request help from them [volunteers from the association]. Most of them are my friends already, so it is not a problem" (Jackie); "When I know some PWDs did something that I have never done before, I will be intrigued …I will directly ask them how they do it" (Mr. Fu).

Additionally, they ask lots of questions and try to gather information about the activities:

I also like to ask questions, too! I asked lots of questions to my guide, such as how steep is the wall, the height of the wall, and whether the wall is slippery or not? This helped both of us in our communication! (CT)

That is why I mentioned earlier that, for people with visual impairments like us, it is important for us to have good explanations and clear instructions before participating in any activities. For example, jogging in the recreational parks, although there is a jogging track, we must first know what kind of track, what type of pavement, if it is slippery or flat, are there any potholes; we need to know

all these first. This is why the culture of asking lots of questions is quite common among people with visual impairments; if we don't understand, we will ask. (Ash)

Preparedness for challenges. Preparedness for challenges refers to the actions or steps that the interviewees said they had made before engaging in outdoor recreation activities. Nine of the interviewees stated that their outdoor recreation participation somehow was facilitated by preparing for the challenges. Some PWDs reported that, before participation, they would usually try to gather information about the activities and places, either to decide whether to participate or not or because they wanted to learn about the places in order to be able to get ready by doing some necessary preparation. This is to ensure that they be prepared for the anticipated challenges to ensure smooth and satisfactory outdoor recreation participation. As described by some interviewees: "I will try my best to learn about the place, do my research by calling ahead or through the Internet" (Jackie);

> Before I proceed with any outdoor recreation activities, I will first try to find as much information as I can. This is done through the Internet [looking at related websites] and by asking others who have already experienced it. This can either be from normal people or from PWDs. We need to have a bigger picture of the activities that we are about to pursue. Then only can we make decisions about the activities, whether to proceed with them or not. (Ash)

> We [PWDs in general] will usually do our research first before making the decision. We can't just go without proper understanding because once we get there, it will be difficult for us because we can't see it! …First, I must comprehend the condition of the place. If I have never been to that place, I will need to, at least, be able to picture the surrounding environment first, "what they have over there, what are the things that I can do, and what are the things that need to be considered? …also regarding the related procedures. I also will find information about the facilities and activities; then only can I proceed with the planning. All these to avoid any chaos during the actual day. Changes can still take place, but at least we have a plan ready. (Uma)

> So, before I go out, my family will usually go and check the place for me first. … They will then discuss with me whether or not the place is suitable for me. They will do this as it can help reduce the chance of me being disappointed. (Linda)

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Some interviewees also reported that having information beforehand is useful for them to be mentally and physically prepared for any of the anticipated challenges.

> Usually, you can already know what to expect, especially for places like recreational forests or beaches. Moreover, now we have a website, or you can just 'Google' and do some research about that place before you go. This sometimes might be helpful to me. <u>If for activities like river picnics, I do not make any special preparation.</u> <u>I do not do any survey [reconnaissance] because we already know what to expect for places like this recreational forest. I know that it is not accessible friendly.</u> So, <u>all I did was just be mentally prepared!</u> <u>Since I already know what to expect, what I did was to make sure that I will be able to adjust according to the situation.</u> I will do what it takes for me to overcome or adjust to any of the shortcomings or challenges. (Ali)

> The ATV park <u>doesn't have accessible toilets.</u> I don't blame them [the management] since they might not expect that PWDs like us will go there. So, I cannot comment much about the facilities. <u>We [PWDs] need just to make do with whatever basic facilities that they have</u> and had to adjust according to the situation there! (Mr. OKU)

Some of the interviewees get ready for the challenges by, for example, preparing the necessary equipment, taking care of safety aspects, or by learning the skills and techniques required for the activities.

> I recently went white water rafting in Kampar, Perak [a famous rafting location]. We [representative for the Association for persons with visual impairments] went there for a site visit for our program. We went there to <u>inspect the condition and to check whether it is suitable or not for us to organize a whitewater rafting activity for our PWDs group.</u> So, we went there to <u>make sure that that place has the facilities that we need, make sure it is in good condition, and have the services to make sure it will be safe and fun.</u> We will proceed with a program only after we agree on everything. (Zack)

> Like for the preparation for the activities, I will follow the itineraries. <u>I will prepare the clothing or gear according to the activities or places to go.</u> I will discuss the itineraries with my friends who planned the trip. No different, when I was small, and we were planning for a family trip; I would ask my mom where to go, what to do, and how long are we would be going? So, from this, <u>I will plan and prepare my things.</u> (Uma)

Past experience. Past experience refers to the knowledge and/or skills that the interviewees gathered throughout their lives. This might include the activities or training that the

interviewee had been involved with previously, skills or knowledge that had been learned or acquired previously, or even by having certain types of exposures in life, even if not directly related to the specific outdoor recreation experience. Nine of the interviewees stated that their previous experiences helped facilitate their participation in outdoor recreation activities. Some attributed their participation to having previous experiences with and exposure to recreational activities. For example: "When you climb on top of the ATV vehicle, it is like climbing on any regular motorcycle. We did everything ourselves, and it was not difficult. The feeling is like riding a three-wheel motorbike" (Mr. OKU);

> Fishing is not that big of a problem to me <u>since I used to do it on my own when</u> I was young; <u>this was when I still had good eyesight</u>. So, since <u>I already knew how to do it, even without sight, I am still able to imagine how to do it! This previous experience does help … [S]ince I used to hold a worm in my hand, I know what it feels like. Same with the fishing hook</u>. (Anjang)

> <u>I first learned how to ride a tandem bicycle in school. I even had the experience of riding a single bike, but this was a long time ago</u>, and it was in my hometown. For me, <u>the feeling between this bike and the tandem bike is just about the same. This is why I don't mind joining this tandem cycling activity</u>. The only difference with this tandem bike is that we will have another rider, a captain, who sits at the front. (Nur)

They also attributed past experience as having had the opportunities to being exposed to an activity, being able to socialize in the society, and to learn life skills.

> <u>I started to learn to socialize with 'normal' people</u>. I had to learn how to be independent. Thank God, I have many friends. <u>I will join them with their activities; if they go to a lake, I'll go; if they jog, I also jog with them</u>. (Zack)

> At first, I was not that confident …whether I could do it or not. But <u>since I have been training together with the 'normal' students, I try to brave myself and give it a try. I kept thinking to myself that it is going to be okay</u>. (Ela)

> Like me, <u>I am able to put on my gear on my own</u>. Before going for the dive, we all need to <u>learn it in the pool first.</u> This is where <u>we learn the technique, theory, and everything</u>. For us to do the scuba activity, the dive instructor will teach and train us just the same as they train any able-bodied person. ... Not only I am a certified diver, but I also can consider myself as a seasoned diver now. (Steven)

Another identified facilitator to participation was having early exposure to outdoor environments or having the upbringing that exposed and accustomed them to being active. For example: "I was raised in a village, in Pahang. And I have been to many places. … I had many activities … playing around, exploring the village. In that village area, they have plantations, hills, a lot of places to play (Zack), and "I was born and raised in a village, so I am used to being adventurous. … I am used to extreme activities like catching fish or playing in the outdoors" (Ela).

Interpersonal Facilitators

Interpersonal facilitators are social interactions among individuals, or community relations and affiliations relished by interviewees, that have helped to promote or enable participation in outdoor recreation. Three sub-themes emerged under the interpersonal facilitators, including positive social interactions, social support networks, and support from authorities. PWDs reported receiving psychological support or physical assistance from their families, spouse, friends, and/or the public during their outdoor recreation participation. They stated that wanting to spend time with friends and family and to socialize with the community as among the factors that help facilitate their recreation participation. They also reported that the support received from organizations through available accessible and suitable programs, financial aid, logistics arrangements, administrative support, volunteers, and training provided by authorities serve as facilitators.

Social support networks. The social support networks sub-theme refers to the interviewees having expressed receiving care, assistance, and support from others, such as from family members, friends, or the public in general, that helps facilitate their outdoor recreation participation. All twenty-one interviewees reported receiving or having some social support that

facilitated them in their outdoor recreation participation. Almost all interviewees stated that

support from family members and friends is an important factor that has helped them during their

participation or encourages them to participate in outdoor recreation activities.

> I will participate in recreational activities with whom I know … my friends or family. For outdoor activities, I usually will go for a river picnic in a recreational forest. My family does not restrict me if I want to do any of these activities. However, I am required to do this on my own because they want me to be independent. But, of course, for the things that I cannot do, such as to get into the river, my family will help me. Same if with friends; they will help me, too. All my friends understand me already. If my family wanted to go to outdoor places like this, they would never leave me behind. (Ali)

> Yes, the support system is very important, especially support from the family. But we still need other people from outside the family to lift up our spirit – from those who are in the same "boat" as we [other PWDs]. When they lift up our spirit, we, at the same time, also help boost up theirs. It is not a one-way street! (Kerp)

Some of the interviewees explained that knowing they have support from family and a

spouse has somehow facilitated their engagement in outdoor recreation activities.

> For these kinds of activities, I always have the full support of my family. They always motivate me to go and follow them, because, according to them, it would not be fun if I am not there with them. I'd sometimes tried to refuse their invitation by making an excuse, but they still insisted on me going and joining the trip with them. They persuaded me by saying that if I go with them, they will go through thick and thin together and make sure that I will enjoy it. (Waja)

> My parents never restricted me; in fact, they supported me. This is true as long as I am able to do it on my own. Even though I cannot see, my parents do not like to see me just sit around in the house. They like me to mix with people. (Hadi)

> …before I go out, my family will usually go and check the place for me first. They will then discuss with me whether the place is suitable for me or not. They will do this as it can help reduce the chance of me being disappointed. (Linda)

Some of the interviewees stated that having support from friends, or even being part of a

social support network, has helped them toward their outdoor recreation participation.

> …we usually will feel more secure if we are with our friends, amongst persons with visual impairments. Personally, I feel more secure if I am with them. Although all of us could not see, we will endure hardship and try to survive

together. This makes the moment more meaningful compared to when you are with sighted people, even if being with them means easier for us! (Nur)

PWDs, we have this one characteristic; <u>if we have friends, we will explore things together. Even doing a simple thing can be fun for us</u>. …<u>As long as we have friends, we will be happy.</u> This is because we share the same feelings. The activities are not the point. The main thing is that <u>we can do it together with our friends</u>. And some friends, they can easily adapt to us. (Uma)

Because <u>when you are in a group, among your friends, you see them relaxed and not panicked</u>. It somehow makes you feel calm even though you are a little bit scared at first. So, <u>knowing that you are there with friends helps a lot.</u> (Sha)

I don't know about others, but to me<u>, a support system is important. If you have friends, then ask your friends to go out. That is why the reason for me to go out is to socialize and be among friends</u>. …Like me, sometimes I don't realize that I need to go out, but I actually need to go out. I can't just stay at home. Yes, maybe we used to have a lot of friends, but <u>even with fewer friends, I can still go out. Try and find friends that you can talk to or hang around with, just to socialize.</u> Because, <u>if it is not you who ask them to meet up, they will ask you to meet up</u>. So, it is good as long as it does not bring a negative impact on you. (Sam)

Some shared how their friends have helped them organize an activity to make it easier for them during the trip. For example:

We went to the Cameron Highlands during a holiday. This was a long time ago. <u>My friend had already made a reservation for the campsite</u>. We went camping there for just two days and one night. This one friend of mine, he is a positive guy. He likes to do stuff like recreational activities and nature. <u>He arranged everything</u> …equipment for camping. I slept on this thing called a camp bed. It was so cold that night, and luckily <u>my friend brought me a sleeping bag</u>. <u>He is also the one who persuaded and convinced me to go on this trip</u> with him. He said it would be a new experience for me. And after I had experienced it, I totally agree with him. It is something new! (Joe)

Like I said, <u>my friends planned everything for the trip</u>. ...As for the preparation for the activities, I will follow the itineraries. I will prepare the clothing or gear according to the activities or places to go. I will discuss the itineraries w<u>ith my friends who planned the trip.</u> No different from when I was small, and we were planning for a family trip, I would ask my mom where to go, what to do, and how long were we going! So, from this, I will plan and prepare my things. (Uma)

One particular interviewee explicitly described how having support from a teacher during her high school years has helped to her be active in outdoor activities.

However, <u>this changed after my teacher gave me the opportunity</u> to be involved with the peer-support group activities, and with all the leadership and camping programs. <u>I feel like I am back to doing what I used to do</u> in the village. (Ela)

The interest comes by itself, from me. However, <u>my teachers also played an important role in giving me</u> encouragement. They convinced me and <u>provided their support by telling me that I can do it</u>. …<u>The teachers said they are confident that I can also do kayaking activities like everyone else.</u> (Ela)

After this kayaking program, I also <u>had another invitation from my teacher to participate in a jungle trekking activity</u>. I was selected because <u>the teacher had confidence in me</u> due to my experience of participating in many district-level programs. (Ela)

Positive social interactions. The positive social interactions sub-theme refers to the interviewee having positive interactions with or involvement as a member of society. Seventeen interviewees reported that their involvement in outdoor recreation activities has been facilitated by having positive social interactions. Some of the interviewees stated that they participate in outdoor recreation activities because they want to be part of society and to be able to socialize with the bigger community.

There, I <u>started to learn to socialize with 'ordinary' people</u>. I had to learn how to be independent. <u>Thank God, I have many friends. I will join them with their activities, if they go to a lake</u>; I'll go; if they jog, I also jog with them. PWDs who went to a boarding school usually know how to manage themselves. (Zack)

<u>You can also hang out with friends and be socialized</u>. This is also a benefit. If you are out of your house, <u>you can feel like you are part of the bigger community. You can interact with people and look at people's reactions</u>. (Sam)

That is the reason why my parents did not prefer to send me to any special school. Instead, <u>they sent me to a regular school where they knew I would be able to socialize with other normal kids</u>. So, when I finished school, <u>I was used to mixing with people in the community</u>, …meaning that I am not restricted to socializing in only one group of people. I considered this schooling experience as highly important because all the things that my parents told me are really happening to me right now. (Hadi)

Some interviewees explained positive social interactions as a result of them having early exposure to others and opportunities to have an active role in society. For example: "In school,

we were trained how to be physically and socially active and how to socialize with other students. We also had these extra-curricular activities in which we participated" (Nur), and

> Although I went to a special school, I have been <u>exposed to normal students quite often.</u> I <u>often was selected as the school's student representative</u> for the region and state level. <u>This is when I had the chance and exposure to participate in outdoor recreation activities and socialize with other normal students</u> from all over the state. (Ela)

Some of the interviewees were more specific, saying that they participate in outdoor recreation activities specifically because they want to spend quality time with family and friends. Some interviewees identified both being with family and being with friends in one statement, while others indicated each in separate accounts. For example, some interviewees stated wanting to spend time with family and friends: "I also like to go out and spend quality time with my family and friends; we will go to the shopping complexes or recreational parks" (Linda), and "I seldom do outdoor activities; I only do them if I have friends, or am with family" (Uma). Some described that they participate in outdoor recreation with their family. For example:

> I usually will <u>bring my wife with me</u>. For example, <u>we will visit my sister's shop, which is nearby a beach. Then, we will hang out together</u>. I choose to do this activity because I like to witness the beauty of the Almighty God's creation, like the view of the beach, calming your mind, <u>bringing your family</u> to relax, observing random people's behavior ...just for fun! (Waja)

> I will walk around the neighborhood, usually <u>with my wife and kid</u>. I have a daughter. I will spend around 20 minutes, up to half an hour. If the weather is nice and the condition is good … usually I will do it. <u>I will go with my kid</u>, depending on which area; sometimes if I feel like wanting to go to the lake, I'll just go there. (Zack)

Some other interviewees stated that they wanted to be able to spend quality time with friends. For example: "I personally do not really like outdoor activities. It [my involvement in the activity] is more because of the social factors, to be among friends" (Sha); "for me, I will do it because I don't know when I will have this chance again …to be able to hang out with friends"

(Ali); and "Another reason [for jogging in the park] is because I want to meet with my friends and socialize" (Waja). Some interviewees did also express their inclinations to participate in recreational activities due to having companionship or friends who shared the same background.

> For me, for outdoor recreational activities, I <u>prefer to do it with friends</u>. <u>Friends who share the same condition as I have, or friends who know me inside out.</u> To be honest, family members, like my siblings, although they are already familiar with my situation, does not mean that they understand me, or that they know how to assist me in any outdoor activities. …So, for outdoor recreational activities, I usually will get help from friends or my wife. (Ash)

> But there is a trick to overcome this [low self-esteem due to disability] – by you <u>going out and meeting other disabled friends</u>. …One time, I met a guy while doing rehab in a hospital; I met people who are in the same situation as I. From there, I started to gather my strength … to understand and to gain knowledge about what I am experiencing right now and acknowledged that there is a life after becoming disabled. (Kerp)

> **Support from authorities.** Support from authorities plays a significant role in helping

facilitate outdoor recreation participation. Support from authorities refers to interviewees having assistance or services from the government, local operators, non-governmental organizations (NGOs), professionals, or volunteers that support their outdoor recreation participation. Fourteen interviewees indicated that they have received support from authorities, including having assistance from official organizations or service providers, or help from a volunteer or guide. Some interviewees stated that their outdoor recreation participation had been made possible or easy due to aid from organizations. For example: "Usually when programs are organized by associations, they will provide all the necessities. They will cater to all the things that PWDs need, including the guide!" (Anjang);

> However, joining <u>programs under the association will be much easier</u>. This is because they will plan and manage everything. We just need to register and join. Programs like this are typically <u>organized by the visually impaired group</u>, usually among those with experience in such activity. (Hadi)

If the activities are organized through the organization, the organization will help cover some of the expenses. Like maybe half of the cost will come from the organization and half from the participant. We also have programs with NGOs, but usually, they are not outdoor recreation-related, more like simple activities or programs with PWDs. (Zack)

Since this scuba diving activity was tailored according to our needs and abilities, taking consideration the accessibility issue and suitability, the activities become possible for people like me. I don't have to think about doing everything on my own because the organizer has organized everything, including volunteers. (Cindy)

…and the activity is properly organized; everything becomes much easier. When I first joined this cycling activity, it was organized specifically for the blind person. So, each of us was assigned a captain. A captain is a guide or rider who sits in front of a tandem bicycle and helps to navigate the bike. The captain will also assist us throughout the journey and make sure that we will be involved. (Nur)

Some of the interviewees expressed that their outdoor recreation participation has been facilitated by the training and technical assistance received from the service operator or outdoor instructors: "I started swimming and learned how to swim because I wanted to join a scuba diving trip. So, they have this training session where they teach you water confidence and swimming" (Mr. Fu);

…they will teach us how to use the vehicle; they gave us a brief introduction about the vehicle, like "this is the brake …and you ride like this." Then, they will lead us around the trek, more like a 'trying to get used to the ATV' session. They lead us to the easy trek first. We should get used to handling the ATV in easier terrain first before we go to a more challenging off-road terrain. (Mr. OKU)

In order for the organizer and the instructors to better assist us during the scuba diving, they will have this session where we will be trained together with the instructors and the volunteers. So, during this, we will have communication and exchange knowledge about how we will go about the scuba activity. (Steven)

Like my hang-gliding instructor, he knew straight away how to do the explanation for people with visual impairments without needing me to explain to him how. He held my hand and asked me to feel the glider, the handle, and how I need to bend my legs during the landing. The way he explained it made me want to do it more, and I felt prepared, even though I still had some fear. (Ash)

They also described having hands-on and tactile assistance during the activities as helpful facilitators.

> For the things that we did not know how to do, <u>the teacher would help and teach us. We were taught through a tactile learning technique</u>. The teacher introduced and explained to us about the tool and its functions. From there, we learned to use the tool as directed, like how to set up the tent or pitch up a pole. Actually, the camping program is just the same as any other camping program for a sighted person. (Nur)

> We will dive with the help of an assistant or buddy. Normally, <u>the buddy will hold my arm, and he will squeeze my arm to ask if I am okay or not</u>. In return, I will do the normal diving signage, saying that I am okay. <u>I will use my hand and finger</u> – like this to show that I am okay or if I want to ask a question to my buddy. We <u>will use the normal standard hand signs and sometimes have adjusted it a bit to add more meaning</u>. So, my buddy and I, we both know the meaning of the signages. <u>For him to talk to me, he will squeeze my arm and use motion and senses</u>. For example, <u>he will draw a circle on my hand, to explain that there is a turtle in front of me, or put a fin on my head to warn me that a shark is coming.</u> (Steven)

Structural Facilitators

Structural facilitators relate to the operational or physical factors of a society that operate externally to the individual, that lead to or facilitate PWDs' outdoor recreation participation. Six sub-themes emerged under the structural facilitator category, including the availability of accessible facilities, ease of access, usability of facilities, availability and practicality of supportive technology and tools, availability of accessible outdoor recreation opportunities or services, availability of access to information or readily accessible information, availability of convenient and accessible transportation services, and availability of financial assistance or having the ability to spend money for outdoor recreation purposes. The majority of the study's PWDs reported their involvement had been facilitated by the availability of accessible facilities and services. They stated that their level of involvement was influenced by whether or not the area provided accessible facilities such as paved pathways, accessible restrooms, and ramps.

Their participation also was facilitated by the availability of assistive technologies or tools that helped or enabled them to perform tasks or activities related to outdoor recreation. Many of them also reported that their participation depended on having opportunities for accessible and suitable programs and services. Other structural facilitators included the ability to gain access to information, availability of transportation services, and having financial ability or support.

Availability of accessible facilities. The availability of accessible facilities refers to the existence of accessible facilities, ease of access, and usability of a place or built structure. Fifteen interviewees stated the availability of accessible facilities played a significant role in accommodating their outdoor recreation participation, such as the availability of ramps, accessible entrances, and paved roads. They stated that the decision to participate in or choose certain places for outdoor activities was influenced by whether or not the area has accessible facilities. For example: "The reason why I use this swimming facility is that this place offers accessibility. There are no steps, all "A" slopes only [stepless walking surfaces with running slope compliance with universal design standards]" (Steven);

> The place is quite okay, considering it has a ramp leading to the beach. The beach also has public toilets, but a regular toilet, not the accessible-friendly type, and with regular bathrooms. We still considered it as suitable because this area has a ramp-like pathway that leads to the beach. The ramp looks like a place for people to land and launch their boats . . . because the pathway is quite wide. (Cik)

> As long as I can handle myself with the wheelchair and everything, it is good enough for me. I will find the space that has easy access to the pathways or sidewalks. So, I will park there and enter the park through the entrance. Usually, the parks nowadays, they have an accessible entrance to the park. I think it is a requirement now to have the slope-like-entrance to the sidewalks. (Sam)

Apart from accessible facilities, some of the interviewees included the convenience of the location as a facilitator. For example: "The park that I frequently visit is Titiwangsa Lake Garden. It is because it is near to my house. The place is accessible, and has facilities, like an

accessible toilet" (Jackie); "I like Subang Lakeside Recreational Park. It is near to my house, and

it's very big and has many different sites. It has a pathway, and it is suitable for my wheelchair"

(Linda); and

> The reason why I choose this place is that it is close to my house. It also has a Braille track …but not all places have it. …Although the facilities for vision-impairments are still lacking in this Perdana Lake garden, I still choose it as my favorite place for jogging because of the convenience aspect. (Anjang)

Some of them also stated that they would first research a place before deciding to carry

out the activity: "Before I went to the waterfall, the first thing that I did was to look at the

facilities. I did some survey [reconnaissance], went to check or asked whether or not they have

accessible facilities like a toilet for PWDs" (Waja),

> Usually, before I go out, I'll check out the place, if it is suitable or not, check whether or not it has accessible facilities. Because I'm using a wheelchair, you cannot just go out like that. And then the weather, whether it is very hot or nice weather. (Linda)

> …we went there to research the condition, to check whether it is suitable or not to organize a program for people with visual impairments group, for us to do white water rafting there. So, we went there to make sure that the place has the facilities that we need and are in good condition … the services that they have, and whether it is safe and fun. (Zack)

> …the outdoor recreation activities or facilities must be convenient for PWDs … like for wheelchair users. This is because the first thing we ask before we go is whether or not we will be able to use a wheelchair. Do they have any obstacles that require us to climb or anything else? (Anjang)

Among the most commonly reported facilities about which the interviewees had concerns

was the availability of accessible restrooms. For example: "The criteria that I would consider

before deciding whether to go or not are things like the slopes, or if the ramps are too steep, or if

there are a lot of potholes. Then, they must have accessible toilets" (Jackie), and

> Wheelchair users like me, the first thing that we think about and look for is not the parking, we look at the toilet first, whether they have a toilet for PWDs or not.

Because, for the parking space, we still can manage it. But the toilet is the single most important thing in the outdoor environment! (Mr. OKU)

Some of the interviewees described how having accessible facilities has helped them in their outdoor recreation participation. One interviewee stated:

Luckily, also, the island has a good jetty with a paved road. On the beach, they will use this small lorry-like vehicle to transfer us from the resort to the jetty. The good thing about this is that they don't need to carry me, as the vehicle can fit with me sitting in my wheelchair. (Mr. Fu)

Another interviewee said:

The place is quite okay considering it has a paved pathway leading to the beach. The beach also has public toilets, but a regular toilet, not the accessible-friendly type, and with regular bathrooms. …We still considered it as suitable because this area has a paved pathway that leads to the beach. The pathways look like the place for people to land and launch their boats . . . because the pathway is quite wide. (Cik)

One interviewee expressed her opinion about an ideal setting that she would like to have, and that would help facilitate her during outdoor recreation participation.

For those wheelchair users, a good place is a place where it requires less assistance from others, places where you don't need people to help, and carry you. …This is why, for me, personally, I like places like theme parks because they provide accessibility for the wheelchair. This place usually will have ramps and pathways accessible to us (Cik)

Supportive technology and tools. Supportive technology and tools refer to the opportuneness or practicality of having equipment, technology, or product systems that are used to improve PWDs' functional capabilities or facilitate their outdoor recreation participation. Thirteen interviewees reported having taken advantage of technologies and tools that help them participate in outdoor recreation activities. They also make use of Internet resources to get information about the availability of accessible services and facilities that can help them to prepare for or decide to participate in activities. They also use social media to share experiences, get assistance, and discuss or plan for the activities. PWDs also take advantage of existing

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equipment such as tandem bikes to make cycling activities possible for them. The importance of using available technology and tools for PWDs – for daily life as well as outdoor recreation participation – is illustrated by the views of one interviewee, who stated:

> Because when you cannot see, of course, you need something to compensate for it. We [person with visual impairments] need assistance to guide us; we need to take advantage of assistive technology to make our daily life easier. Like now, we can do our shopping online; we can also use GRAB application services as an alternative to public transport. Maybe for the general community, they might think that online shopping is lazy, but for us, it is very convenient. With online services, we don't have to bother to go out with our walking stick and hurdle all the challenges anymore. (Nur)

The most commonly reported is use of ride-hailing services. Interviewees said that they prefer to use GRAB (ride-hailing transport services similar to Uber/Lyft in the U.S.), which they can book from their smartphones through an online application. Almost all of the interviewees who reported using these services preferred it as compared with previously used taxi services or public transportation. For example: "… it is easier for me to take the GRAB to places like this park without having to rely on friends or public transport. …It is convenient, friendly, and the fee is reasonable" (Joe); "I don't drive anymore. So, I heavily depend on others for transportation. Public transportation services before GRAB were a nightmare! Since GRAB is here, I always use GRAB" (Jackie); "For transportation, nowadays we have GRAB. I use this service quite often. So in terms of transportation, it is not that big of an issue" (Sha); Like GRAB, it is easy; we can let them know upon booking that we are wheelchair users, and we can ask them whether they would like to offer their service to us or not" (Cik); and

> …if you use public transport like the taxi, it is a bit a nuisance. Sometimes they don't want to go to the place that we want to go. That is why I prefer to use GRAB; just order it through my phone and wait for it. The only thing is, for me to check the plate number when the ride arrives, I need to go really near to the car to confirm it. (Anjang)

Some of the interviewees also reported having taken advantage of online services to conduct research about recreational places or learn new skills related to outdoor recreation activities.

> As for the preparation before the activity, we will do the background research. It is easy now with social media. You can check what other people are saying about the activities – any comments, the rating, all the positive and negative feedback. Then we make a decision. Nowadays, with social media, you can find a lot of references; you can go on Google, Facebook, WhatsApp. The information is not concentrated on only the association or the organization anymore. Even for people from the association, we will find information from reading and from other people's opinions, from people around us. (Zack)

> To overcome this challenge, I pushed myself. For example, I go to the Internet and learned from the videos how other PWDs with wheelchair users swim. What are the techniques and adaptations that they use for them to be able to swim. For me, YouTube videos are very helpful. I learn much about how to be independent through YouTube videos. (Mr. Fu)

They also reported having used social media to socialize and find help or new opportunities for outdoor recreation activities. For example: "All of us, these friends of mine, we became friends through social media. We set the time to meet up, to discuss, and do the preparation … until the climbing trip" (Zack), and

> But there is a trick to overcome this [low self-esteem due to disability]; it is by you going out and meeting other disabled friends. Before this, there was no Facebook, and we didn't know who has the same condition as we. One time, I met a guy while doing rehab in a hospital; I met people who share the same situation as I have. From there, I started to gather my strength … to understand and to gain knowledge about what I am experiencing right now, and that actually there is a life after becoming disabled. … But this younger generation of wheelchair users, it is easier for them; they have Facebook to communicate with other wheelchair users. (Kerp)

Some of the PWDs also reported that the availability of certain equipment has helped and enabled them to participate in certain activities. A specific example is the use of a tandem bike.

> But sometimes I also ride the tandem bike, the bicycle for two people. With this tandem bike, the person in front must be either a non-visually impaired person or

someone having better vision than me (low-level visual impairment). <u>The person in front will take the lead to steer the bike</u>. We went to many places. (Hadi)

For me, the feeling between <u>this bike and the tandem bike is just about the same</u>; that is why I don't mind joining this tandem cycling activity. The only difference with <u>the tandem bike is we have another rider, the captain who sits at the front</u>. The captain will be the one who navigates the bike. …So, it can be said that this <u>tandem cycling activity is an inclusive activity</u>, which allows the PWDs and person without disabilities to be together in one activity. (Nur)

Another example is the use of a motorized wheelchair that enabled one interviewee to join a marathon.

Prior to this, no, I did not participate in any fun run activities. This is because my wheelchair technique is not that good. I didn't have the confidence to push myself that far. <u>That is why I bought the motor as an adaptive technology</u>. (Jackie)

Some other interviewees also reported that their participation had been made easy by the availability of assistive technologies.

But, I cannot deny that technologies do help us a lot in our daily lives. In fact, it is the reason why we can achieve independent living. For example, there is <u>software called "Where am I" that can tell us about our location</u>. Also, now we have many accessibility apps for our phone like the "<u>Screen reader</u>" where your phone will <u>be able to read the text for you</u>. So, <u>instead of asking help from others to read it for us, now we can just let the phone do it for us</u>. But in terms of us participating in any of the outdoor recreation activities, we never use any of the apps. (CT)

Actually, our computer is just the same as any other computer; the only difference is that <u>our computer uses adaptive voice kinds of things. The computer will read it to you.</u> Other things, all the same, we will type using the same built-in keyboard attached to the laptop. <u>This assistive technology is very helpful</u>. I use this technique often with my phone. (Steven)

Availability of opportunities. The availability of opportunities refers to when interviewees indicate outdoor recreation activities and services were made available and accessible for them. Twelve interviewees stated that their outdoor recreation participation was influenced by the availability of the opportunities for the activities. Some of the interviewees indicated that the availability of accessible and suitable programs for outdoor recreation,

especially those organized by an association, has made outdoor recreation participation possible

for them. For example: "I like to join the <u>activities organized by the blind association</u>. The

association will also <u>provide volunteers that will help and guide us</u> throughout the programs. So,

for me, this is a good chance to participate in the activities" (Sha);

> For me, the opportunity is important for you to be able to participate in outdoor recreation activities like this mountain hiking. Previously, I did not have experiences with my normal friends … being denied the opportunity to join their hiking activities. They feared for my safety, thus refused to want to take any risks. So, <u>this is why we usually will participate in this kind of activity through the arrangement of the association</u>. (CT)

> <u>Usually programs organized by associations, they will provide all the necessities</u>. They <u>will cater to all the things that PWDs need</u>, including the guide! So, with these well-organized programs, it will hopefully be able to attract those beginner PWDs to participate because everything has been made easy for them. (Anjang)

They also reported that their outdoor recreation participation had been facilitated by the

availability of opportunities shared by their friends.

> My friend told me that People Support People Society is arranging for a <u>swimming lesson for PWDs who would like to participate in a Scuba Diving trip</u>. So, I joined the swimming lesson and then immediately signed up for the Scuba Diving trip. (Jackie)

> It all started in 2012; the dive instructor for this scuba diving activity met me at the swimming pool that I usually went for swimming. He asked me if I wanted to join their scuba diving activity for PWDs. I asked him back, "can a blind person go scuba diving? And he said, <u>of course you can because you can swim</u>". (Steven)

> One day I realized that all my housemates, they all woke up early and looked busy. So, I asked them what was going on, and they told me that they had a training session for the Mount Tahan expedition, organized by the Malaysian Association for the Blind (MAB). Hearing this intrigued me, and I asked them, "Blind people can also climb Mount Tahan?" And they asked me back, have you ever participated in any "jungle trekking" activity like in school? <u>It is the same; the only difference is that the trekking will be longer and more challenging</u>." After hearing this, I directly asked them if they could ask the organizer whether or not I could join them. (CT)

Some are having opportunities through direct invitations, for example, from friends or teachers.

> We <u>were invited by our friends to join the trip</u>. Our friend had been there several times and was quite familiar with that place. For this reason, everything was made easier for us; we know what to do, where to go, and how people might treat us. Because of this, my husband agreed to join that trip. (Uma)

> After this program, I also <u>had another invitation from my teacher to participate in a jungle trekking activity</u>. I was selected because the teacher had confidence in me due to my experience of participating in many district-level programs. (Ela)

They also stated that chances to participate in outdoor recreation activities are higher if the service provider has a positive attitude and is willing to provide the opportunities and offer their services to PWDs.

> People from developed countries are well-prepared. Like in Japan, <u>people are aware of people with different abilities, and they are well-trained and capable of handling such situations</u>. The environment itself is welcoming. This is what <u>a true PWD-friendly society</u> should be like. Like <u>my hang-gliding instructor, he knew straight away how to do the explanation for people with visual impairments</u> without needing me to explain to him how. (Ash)

> If they can organize activities that focus on PWDs, like how they did with the Scuba diving activities, I might put it into my consideration, because I won't be able to do it on my own. So, <u>if they can provide help, guidance, and give assurances that it will be okay to participate in the activities, I would like to join</u> them! (Cindy)

Accessibility of information. Accessibility of information refers to interviewees having access to or receiving information related to outdoor activities or facilities through the act of learning, searching, or communicating. Nine of the interviewees identified accessibility of information as a factor that facilitates their outdoor recreation participation. Some of the interviewees stated that having access to information beforehand is essential for them to anticipate the situation, evaluate the suitability of the places and activities, and decide whether or not to participate. This can help them avoid being disappointed during their participation. For

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example: "… before I go out, my family will usually go and check the place for me first. They will then discuss with me whether or not the place is suitable for me" (Linda);

> For example, jogging in the recreational parks, although there is a jogging track, <u>we must first know what kind of track, what type of pavement, if it is slippery or flat, are there any potholes; we need to know all these first</u>. … If I go there and I know about it, I will share this information with my PWD friends. I will advise them about the condition of the track … This is what I will do if I have the experience of certain recreational parks. (Ash)

> For me, <u>I must first know the condition of the place. If I have never been to that place, I will need to at least be able to picture it first, the surrounding environment</u>. What they have over there – things that I can do, things that need to be considered, and the related procedures. I also will <u>find information about the facilities, what activities they have; then I can plan which activities on which day, and how many days to spend there</u>. All these to avoid any chaos during the actual day. Changes can still take place, <u>but at least we have a plan ready.</u> (Uma)

One interviewee provided another example that highlights the importance of having information about the availability of accessible facilities that would help her avoid any constraints during her outdoor recreation participation.

> Also, the activity provider, <u>they need to let us know if the activity is suitable for PWDs</u>! If not, they have to make it clear! <u>Information like this is important as it can save us from feeling disappointed</u> ... knowing that we can't join the activity only after we are already in the facilities or on the day of the event [is disappointing]. (Cindy)

Interviewees reported gathering information about the condition and suitability of a place or activity beforehand by contacting the service provider: "We normally will call up the hotel directly. We will ask whether or not the hotel is wheelchair-friendly (Kerp). They can also do some research to get information from other resources. For example: "If you have Facebook, it would be easy. Because usually, they will put it on Facebook, these activities" (Steven), and

> Before I proceed with any outdoor recreation activities, <u>I will first try to find as much information as I can</u>. This is done through the Internet and <u>by asking others who have already experienced it</u>. This can either be from normal people or from PWDs. We need to have a bigger picture of the activities that we are about to

pursue. Then only can we make decisions about the activities, whether to proceed with them or not. (Ash)

Some interviewees also reported that they get information about the availability of outdoor recreation opportunities from associations. As stated: "For me, my source of information about any activity is through the associations. Through the associations, we don't have any problem getting the information" (Anjang), and "Information usually comes from associations like MAB (Malaysian Association for Blind) and PERTIS [special radio channel for persons with visual impairments]. If not for these two information outlets, I wouldn't know about any of the programs!" (Ela).

Convenient, accessible transportation. Convenient, accessible transportation involves interviewees having access to transportation services or the availability of accessible facilities and services related to transportation that helps travel become easier and feasible. Seven interviewees mentioned that having an appropriate and convenient means of transportation has somehow facilitated their outdoor recreation participation. For example, certain interviewees indicated that transportation is not an issue because they have their own vehicles, and they can drive on their own: "I will take my motorcycle, a three-wheeled PWD motorcycle, and go to the park. It is convenient for me to move around with my own vehicles" (Sam); "Now, I have my own car, and whenever I want to go somewhere, I will drive myself" (Cindy); and "… but now I can be independent and even drive on my own" (Mr. Fu).

Some interviewees also reported that certain transportation services such as the airport and Electric Train Service (ETS) stations also incorporate accessibility aids as part of their services. For example: "Even if you want to take the flight, they have someone who will assist you at the airport" (Sha), and "Transport-wise, I have no problem. I often use the LRT (Light Rapid Transit). I like to travel and do sightseeing. … After we arrive in the town, we can take a

taxi" (Mr. OKU). One interviewee explicitly described her perception that using public transportation is not a big challenge anymore because the transportation service provider has provided accessible transportation services.

> Transportation used to be a problem, too. But now it is quite easy because we have GRAB. So, no more problems with transportation. But, like other public transportation like the commuter train (similar to a subway train in the U.S), so far I have been using the services; it is okay. They provide service for PWDs. Like the Electric Train Service (ETS) – I also never had a problem with it because if they know that PWDs passengers are using the train, they will take care of these passengers. So far, a couple of times using their services, they will take care of me, from the start when I board the train until I get down from the train. They will take care of me until I arrive at the station. They will ensure that I safely disembark from the train at the station. … They will stop by and ask whether I need any assistance, ask where I will be stopping, or if I need to use the restroom. So, they will take care of me! (Cik)

Other interviewees also indicated that the availability of transportation services like GRAB has helped make their travel easier and feasible. For example: "For transportation, nowadays we have GRAB. I use these services quite often. So in terms of transportation, it is not that big of an issue"(Sha); "Especially now that we have GRAB, it is easier for me to take the GRAB and go to places like this park without having to rely on friends or the public transport" (Joe); and "Like GRAB, it is easy; we can let them know upon booking that we are a wheelchair user, and we can ask them whether or not they would like to offer their service to us" (Cik).

Having financial ability or support. Financial ability or support refers to interviewees having financial resources or receiving financial assistance from others. Five interviewees mentioned financial support as a facilitator for their outdoor recreation participation. For example, one interviewee said that he would participate if he receives some kind of discount from the organizer: "I will join any tournament, and I will pay for the registration fees with my own money. But this only if they offer a half-price or special discount for PWDs; if not, I will not join! (Mr. OKU). A few interviewees reported that they had received some financial

assistance during their outdoor recreation participation. For example: "They told us that they had invested thousands of ringgit (Malaysian currency), with all the sponsored equipment, just to prepare us for the expedition" (CT), and "If the activities are organized through the organization, the organization will help cover some of the expenses. Like maybe half of the cost will come from the organization and half from the participant" (Zack).

Some other interviewees reported that they are willing to spend money on the activities that they like, even if the cost of the activities may sometimes be expensive, as long as the activities are made available to them. This shows that they have the ability and the financial resources to help facilitate their participation, particularly if they highly value the experience.

> In terms of money, if it [an activity] is meant to fulfill our passion, we are willing to invest. … if I like the activity, I will try to make it happen. We are not rich, but we are willing to set aside a sum of our salary just for the things that we like. It is not like I need to always spend thousands of Malaysian Ringgit (Malaysian currency) for things that I like. I can also start the savings earlier. (CT)

> I remember I did "hang-gliding" once when I was in Japan. ... I tried this in Japan, so it is quite expensive, but since I wanted to try it, I just paid for it. I also had to pay for the guide. The guide helped, especially during the landing, to make sure that I landed safely on the ground. (Ash)

> After this trip, I became addicted to scuba activities. I bought my own gear; I got my fins, my wetsuit, the mask, booties …everything except the BCD [buoyancy control device]. … Among the things that I sacrificed in order for me to achieve all these are time and money. Especially money, because this activity costs a lot of money. For the gear only, I have spent thousands [Malaysian Ringgit]. (Steven)

Recommendations from PWDs for Future Outdoor Recreation Participation

The purpose of the fifth question was to determine the factors recommended by PWDs that could help facilitate future outdoor recreation participation among PWDs in Malaysia. The results for this section are presented in four categories: (1) recommendation to other PWDs, (2) recommendations to the public, (3) recommendations to the authorities, and (4) recommendations for explicitly accessible facilities and services.

Recommendations to Other PWDs

Recommendations to other PWDs include interviewees' advice to other PWDs who are facing difficulties or are reluctant to participate in outdoor recreation activities. According to the interviewees, PWDs should not let fear or negative stereotypes deny their rights for outdoor recreation participation. In order for them to be able to participate in outdoor recreation activities, the PWDs need to be positive toward others. They also need to be optimistic, resilient, and maintain their physical and mental well-being.

> My advice to other PWDs is not to be discouraged. They need to be determined and must be strong-minded! One more thing, just because you failed once, it doesn't mean you're going to fail forever. You need to keep on trying! (Waja)

> We PWDs always need to be positive. We should not be over-sensitive if people ask you, and it sounds like they are a bit harsh on you. Just be positive and accept it as if they are concerned about your well-being. The main thing is that they are willing to help and assist. Yes, sometimes the way they ask you can make you feel disheartened, but usually, it starts with this; just try to be positive and it will get better. (Ash)

In fact, according to interviewees, PWDs need to be positive and be agents of change so that the public acknowledges the positive attitudes that PWDs have.

> Do not think about what people might think of us because we are the ones responsible for how they perceive us … whether it stays the same or changes. If their mindset remains the same, our life probably will also be the same. Because we live in one big society, as long as they have this kind of stigma toward us, and we do nothing to change how they see us, forever, our rights forever will be denied! So, we first need to do something that will make them change their perceptions. (CT)

> Actually, for me, in terms of the society, it is we who need to change, not the society! So many people, how can we change them? The change has to come from us, ourselves. [For PWDs] Don't appear to be sickly and always in need of sympathy. [PWDs] Must appear spirited, active, positive. Once you are out there, people will offer help. Don't demand people to change for you. You cannot ask people to change their perceptions. You must change it for them! (Jackie)

PWDs should not let fear, or negative perceptions by others, deny their opportunity to live a meaningful life. As some of the interviewees stated: "For these kinds of people [pessimist PWDs], avoid being prejudiced toward others or to things around you. If anything, you need to try first! Because you will never know until you try. (Waja); "Gather enough information about the activities. If you have any negative perceptions whatsoever, get rid of them first! Because if you try to look for weaknesses, for sure, you will find plenty. Be positive and do your part" (Zack); and

> If you only think about fear, then there is nothing you can do. You cannot wait until the feeling is gone; you should go out and try it first; then only the fear will be gone. You need to give it a try, because only when you try, then you can overcome the fear. Like myself, I will go out and try; I will do it. I will not let the fear rob me of my joy. (Sha)

They advised PWDs to seek courage and to be willing to face challenges so that they can bring about positive changes in their own lives. Some use their personal examples to illustrate their advice for other PWDs.

> To me, you must be brave. You must try and overcome your fear and also be willing to let people help you. If you can do this, then you can do it. Don't worry too much. Because, like me, if I want to do the activities, I will make sure that I will do it. Otherwise, I wouldn't bother to do it if I don't like it. (Cindy)

> If you think about your fear, you won't be able to do anything. I also have this fear sometimes, but one thing that I learned from my dad is that I must try to figure it out, try to find a solution to that problem, then face it. So, in terms of outdoor recreation activities, I will go first and try to see it for myself, and then face the challenges; this is how I conquer my fear! (Ali)

Some of the interviewees also recommended that other PWDs try to come out from their sedentary lifestyle and to seek other opportunities in life.

> People with visual impairments need to be always alert about the outside world. You cannot live in a box. From time to time, you need to go out, outside of your comfort zone. Who knows, we might be blessed by meeting someone who can give us good advice. Or maybe we can turn out to be a leader. Only God knows what will happen. If you stay in your comfort zone, among your people, then you

will not grow. We need to have good intentions, and share ideas with others. It is not important whether the idea is good or not; just let the people decide. (Zack)

So, since I used to be one of those people who didn't go out, what I can share is, you need to list down all the things that make you want to go out. This is to motivate you, so that you can find reasons for you to go out … and it can make you think that you have a purpose, something that you need to accomplish when you go out. And when you go out, make sure you do the things on your list, even if you're going out just for an hour. By doing this, you can see the world! (Linda)

Some interviewees also advised other PWDs to empower themselves and to self-advocate. For instance, interviewees suggested that PWDs start by trying to gather information about recreation opportunities so that they can be more informed about the situations or the available options.

Gather enough information about the activities. If you have a negative perception whatsoever, get rid of it first! Because if you try to look for weaknesses, for sure, you will find plenty. Be positive and do your part, because having information will remove your negative perceptions about the activities. (Zack)

If you want to go or do something, you should find the information first; you have to make a mental picture of it, so that you won't struggle later. Ask people who have been there. And if there is any activity that you are interested in, ask whether you can participate or not. (Uma)

You know, for certain things, especially if we want to do one new thing, we can't just explore it like that. We need clear instructions on what to do and where to go. So, if the activity is a bit extreme, we will think more than twice before joining! We need to do some research; we need to go and ask about the programs, and ask whether people like us [PWDs] can join or not. (Ela)

However, in cases when there are no accessible and suitable services or facilities available, the interviewees suggested that the PWDs let others know of their needs and negotiate for various accommodation.

If they can't provide the services to a person with visual impairments, ask if there is anything else that can be done that can help change that circumstance; try to convince them [the service providers]. It is not easy to persuade people, but the skills can be learned. (Uma)

The interviewees also suggested that PWDs seek help from others, especially friends and family.

> We must be positive and willing to seek help from others. You have to ask! People don't know what you want, and they can't help you if you don't let them know about it. People can't just read your mind, so you need to help yourself by seeking help from others. … Don't be afraid, because in cases when we cannot do it, try to ask for help. Seek support from others, especially from family and friends. (Ali)

Recommendations to the Public

Recommendations to the public are the interviewees' suggestions to other people to be more aware of PWDs, their rights, and their needs. They revolve primarily around the need for public awareness. In a previous section (constraints to outdoor recreation participation), many of the interviewees reported a lack of public awareness, such as lack of social support and negative public attitudes, as concerns that need to be addressed. Here, the interviewees demanded that the public show respect for PWDs. They requested that the public stop using negative stereotypes or discriminating against PWDs, and rather start respecting the rights of PWDs. Specifically:

> My advice to all people out there: do not look down and discriminate against certain groups in the community just because of their shortcomings. We want to promote equality for all people in Malaysia, and this will never be achieved if we still have the same [negative] mindset. We cannot always be in a state of ignorance; we should take the initiative to learn and be a mindful society. We need to change our mindset away from all the negative stereotypes toward persons with visual impairments. (CT)

> I hope more people can become more aware of the conditions and well-being of people like us [PWDs]. Yes, we are the minority, but if you look at the numbers, we are actually a lot bigger! There are a lot of PWDs in Malaysia. (Sam)

> Concerning society in general, if we go to public places, please do not give us a weird look! They [the public] should avoid any stereotyping; stop looking down on us, and belittling our abilities without getting to know us first. The public … the majority need to be mindful of others, including persons with visual impairments community. We need education on awareness (Uma)

Interviewees highlighted the importance of public awareness about PWDs and their abilities to engage in outdoor recreation. Additionally, they expressed the importance of non-PWDs learning how to support and interact positively with PWDs, and to create accessible services and facilities.

> To establish and provide inclusive outdoor recreation opportunities, <u>the general public must first have awareness, then they need to be concerned about the needs and demands of the users; then they need to have knowledge about how to make the facilities accessible and to meet the needs of all.</u> (Nur)

> So, <u>we need to have more awareness programs, that can help to educate the people about how to interact with the blind, what they can do to help, how to offer help in a respectful manner</u>. For me, I see <u>it more about people's awareness</u> because the most important factor that determines whether we can participate or not in certain activities is the people or assistance. Tactile signs and physical facilities cannot help guide us in the forest! (CT)

Some of the interviewees stressed the roles of the public and other NGOs in addressing the need for public awareness and education. As noted by many of the interviewees, education needs to come from all, which includes academic institutions, NGOs, the private sector, parents, and each member of the public.

> <u>This is why organizations like the NGOs and academic institutions should spread the information, educate people so that they can change their mentality.</u> Let them have the awareness, stop discriminating against us, and make us feel accepted in society. Yes, this is very important! We need to change the mindset first. <u>I hope academicians and NGOs can help educate people and improve their mentality so that they can accept us, our shortcomings and strengths, so that we can move forward to bring change in the surrounding environment altogether.</u> If the mentality is not changed, nothing else is going to be changed. Don't even mention having good facilities for PWDs. It won't happen if the mentality is not changed first. (Zack)

> <u>Changes need to come from both groups' ways</u>. … <u>For the public, they need to be more attentive to their surroundings. They need to be mindful of the diversity of people in Malaysia</u>. And, <u>for the government, I would like them to encourage more awareness initiatives, starting with some efforts within their agencies, and also from private entities</u>. (Sha)

One particular interviewee suggested education should start with parents:

… the existing facilities are being misused and abused by persons without disabilities! This is why, I think, it is important to educate and improve people's awareness of the importance of accessible facilities. For me, <u>the parents should do their part. They need to step out and teach the importance of education and awareness to their kids</u>. (Linda)

Some of the interviewees also highlighted the need for a mindful society. They expressed the need for the public to be aware of the importance of accessible and PWD-friendly environments, and to be sensitive to the needs and rights of PWDs. For example: "… we PWDs need to explain and educate the public that the facilities around us have a purpose. They need to be aware of why certain facilities are there and for what reason or purpose, for example, the yellow line of the Braille track" (Uma), and

We also <u>need to start letting people know that special facilities like the Braille track are important to the persons with visual impairments community</u> like us. In case some people still are not aware, the authorities maybe can start to educate the public about the Braille track – this yellow-colored-ridges-bump on the sidewalk and how significant it is to us. <u>I think if more people can learn and be aware of it, maybe it will decrease the abuse of these facilities</u>. For me, the best way to educate them is through awareness programs through the TV and radio. <u>Let them know and be aware of how important this Braille track is to people with visual impairments. Let them realize that they are obstructing our way when they park their motorcycles on the track!</u> (Anjang)

Recommendations to the Authorities

Recommendations to the authorities are the interviewees' demands that the authorities take actions toward providing more and better outdoor recreational opportunities for PWDs. Demands for services from the authorities include improvement of accessible facilities, provision of accessible and suitable services, access to information, and training of professionals and support personnel to assist with the services. Many of the interviewees urged the government to be more sensitive to the needs and rights of PWDs and demanded that the authorities take serious actions to provide equal and better opportunities for PWDs.

My suggestions are that <u>I hope the government or local authority needs to be concerned about us, PWDs. They need to make sure that they provide basic necessities in the recreational areas' facilities such as accessible toilets, parking spaces, and the access; if it is well maintained</u>. If there are potholes, make sure to fix them. If they provide all the basic necessities, I'm sure more people will come. (Waja)

<u>I hope the authorities, like the city council or other government agencies, can take serious measures in addressing the issues related to PWDs in Malaysia</u>. They need to stop giving false hope! They need to walk the talk and prove it … change the negative perceptions that we have toward them … about their lack of action on complaints, superficial actions, and weak enforcement!" (Mr. OKU).

More than half of the interviewees demanded strict enforcement from the authorities to mitigate misuse of public properties and acts of vandalism.

<u>The local authority should emphasize its</u> enforcement. They need to ensure that the public does not misuse the accessible facilities for PWDs. The most obvious example that I can give is the accessible toilet in the recreational parks. Many times, I cannot use the accessible toilet because there are non-PWDs who are using it. For me, <u>the park personnel need to lock it and only allow it to be opened by PWDs.</u> They also need to keep the toilet clean. The same thing with parking areas. There are many park users who park their vehicles in the PWD spaces. <u>I recommend that the authorities who are responsible for the park start enforcing the law and find a way to stop this offense</u>. (Waja)

<u>Effective enforcement is needed for solving the issue regarding vandalism and abuse of sidewalks</u>, especially the ones with a Braille track. <u>Any obstacles that block the sidewalks need to be cleared to ensure safety and accessibility for blind people. The authorities should consider these issues as one of their top priorities</u> for PWDs. (Hadi)

It is about time that <u>the government enforces strict regulations</u> regarding this matter. <u>Maybe it is time for them to start penalizing these motorcycle owners or hawkers who obstruct the sidewalks as they do with car drivers who park their cars without a permit</u>. For example, <u>the authorities can apply a warning system: they can give a warning, and after three warnings, then they can come out with a summons ticket to the motorcycle owners who park on the Braille track</u>. (Anjang)

They also demanded effective actions be taken to ensure the safety of facilities, and for better regulations in developing and maintaining existing and future recreational facilities.

I want to highlight enforcement. It will be pointless, even if we have the initiative to provide an accessible environment, without follow-up in terms of the

enforcement. The target audience, like us, will still suffer from a lack of enforcement and misuse of facilities. If we are really serious about this, <u>the authorities need to make sure everything is done right, in detail, from every level and from the beginning until the end of the development</u>. It will take time, but it will be worth it. (Nur)

At least <u>the developer or park planner should make a border or barrier so that we would know whether it is safe to walk or not</u>. Things like this, <u>the government needs to make sure the park planners follow the standards and safety regulations</u>. (Ash)

Other than this, we need to also look back at the usefulness of the existing accessible facilities. <u>We need to make an assessment and check whether they are really accessible and useable by the targeted group </u>… are they the facilities that they want? Are any of the facilities being misused or being vandalized, or are they being managed in good order? <u>The authorities need to enforce and regulate to ensure that the place is well managed and not being vandalized!</u> (Uma)

Some of the interviewees emphasized the need for the authorities to provide easy access to information, which includes information about the availability of accessible facilities and services.

I want to talk to MOTAC (Malaysian Ministry of Tourism, Arts and Culture) [and tell them] that <u>they should make it a requirement for hotels to provide all the information, whether or not they are disabled-friendly</u>. Whatever it is, they need to mention it (disabled-friendly or not disabled-friendly), and they [MOTAC] need to enforce it! Regulate and enforce the law. (Kerp)

<u>For outdoor recreation providers or park managers: please provide enough information about the facilities and services that are available</u>, such as the availability of toilet, contact number to reach in case of further inquiries, the layout of the area … so we know where to go and what to expect. And also, <u>they have to make sure that this information is accessible to all</u>. Don't depend only on brochures because not everyone can access information from the brochures. (Ash)

Some of the interviewees also demanded that the authorities provide trained personnel who can provide technical or professional support and assist PWDs during their participation.

The person-in-charge for outdoor recreation facilities <u>also needs to make sure that all of the staff are well-informed and knowledgeable about the services</u> provided. Based on my experience, some of the staff can't answer our questions due to a lack of information or unclear rules. The <u>staff can only help us if they are well informed</u>. (Ash)

The important thing about being PWD-friendly is that the place needs to be friendly for wheelchair users. Other than the accessible facilities, the staff of the place needs to know how to handle people with wheelchairs. They need to know what is okay and what is not with regard to assisting wheelchair users. (Cik)

In terms of social aspects of human services, the person who is in charge of the services needs to aware of the needs of PWDs. For example, in case they see us coming out from a car and are in a wheelchair, they can come and ask if we need any help. Sometimes getting your wheelchair out of the car or getting onto the wheelchair can also be challenging. (Ali)

Some of the interviewees also demanded collaborations between the government agencies and other NGOs so that they can take effective actions to provide more accessible and suitable opportunities for PWDs.

For me, it can start with the NGOs working together with government agencies. The government will respond to feedback from the people. If you look at the problem with public transport services, they said they have settled the issues since the previous minister [in office from 2009 to 2012], but have you seen any PWDs using public busses? No, right? (Kerp)

I think we cannot put the task totally on the authorities. The users need to also play their part in following the rules and regulations. As I said, we need teamwork from NGOs and local authorities to provide more programs. Make it accessible and available to the public. (Sam).

Some of the interviewees urged the authorities to organize or provide more accessible and suitable outdoor recreation programs and opportunities for PWDs: "I hope more activities which are free can be organized, simple activities … [We] need to have more PWD-related organizations in Malaysia, and they can make this thing happen" (Sam);

I hope the government can also organize more activities, provide more opportunities for PWDs, like for a person with visual impairments, to participate in outdoor recreation activities. They should organize special activities for the blind, but at the same time, make it open for other people to also participate. . . so that both groups, PWDs and normal people, can be together among each other and interact in a fun way. (Sha)

… the opportunity for blind people to participate in outdoor recreation activities is still lacking, and this is why it is good to have more activities organized by NGOs. It is not that we cannot organize it on our own; we can. But, if we do it

ourselves, among friends, our voice is not strong, especially if it is risky [activities] such as mountain climbing; of course, they will stop us. It is hard for us to convince the providers or authorities to allow us to participate or proceed with our plans. <u>But with the NGOs, they know how to handle the situation. They have what it takes to persuade and influence the authorities to make the facilities and activities available for us.</u> So, this is why it is easier and better if we can have more <u>activities organized by NGOs.</u> (CT)

Another important demand that some of the interviewees highlighted for the authorities regards transportation. They demanded that the government provide better transportation services, which includes better transportation infrastructure having integrated accessibility services for PWDs.

Other than this, <u>the government should also look into providing better public transport services</u>. Other than GRAB, we don't have any other option. The LRT (Light Rail Transit) [similar to subway train in the U.S] stations do provide accessibility, but outside the station, [the route] from the station to a destination, like this park, is not accessible. (Jackie)

The development of <u>transportation infrastructure should be synchronized, between both the local city council and local public transport providers</u>. Another example is the LRT (Light Rail Transit). They have provided the facilities for the disabled, but only around the area [the LRT stations], but when you leave the building complex, for example, a bit further from those facilities, there are no accessible facilities outside the place. So, if you want to go anywhere around the area, you will encounter difficulties. It defeats the purpose of having accessible transport services if the facilities are only being provided in the complex area. <u>The local authorities, they need to do their part to make sure to provide the continuation or to complement the services.</u> (Kerp)

Some of the interviewees also demanded that program organizers consider and provide transportation to help reduce difficulties faced by some interviewees concerning transportation.

It would be good if programs can <u>organize and provide transportation</u> for us. Otherwise, it will be difficult for me to participate and travel on my own. I will <u>need to seek help and trouble others just to help and carry me around.</u> (Cik)

Also, the organizer needs to make sure they are aware of their target participants. It is not that we want full attention from them; it is sufficient if they can <u>provide us enough support systems</u> that will enable us to participate in the programs fully. They need to think about accessible facilities <u>and transportation</u>. (Nur)

Recommendations for Explicitly Accessible Facilities and Services

These recommendations describe the interviewees' demands for accessible facilities and services, and accessible access to recreational areas. Responses here reflect the interviewees' concerns about the lack of accessible facilities and their related demands for their improvement. As mentioned by one interviewee:

> I hope to see more accessible facilities for PWDs so that more PWDs can come. … All recreational areas should provide a route for a wheelchair user. This is because, in Malaysia, not all recreational areas provide access for a wheelchair user, thus limiting the venues for special events to only a few places. These are the factors that often cause the lack of opportunities for outdoor recreation activities for PWDS in Malaysia. (Mr. OKU)

Some of the interviewees demanded accessible and disabled-friendly environments specifically in public areas and recreational parks. They highlighted the need for more accessible facilities and features such as accessible restrooms, paved pathways, and/or Braille tracks. For example: "I hope they can add more facilities for PWDs, like the Braille track" (Hadi);

> I only hope that we can maintain whatever good facilities that we have now and improve the ones without accessible facilities and make them accessible to all. Make sure that whatever accessible options that we have, we can use them. The more accessible facilities are provided, the more we can benefit from them. (Sam)

> Accessibility is the main thing. For PWDs to go out, they need to have accessibility. The toilets are one of the main examples. They [recreational areas] should have more toilets for PWDs. With a park like this, we don't expect to have a toilet every 100 meters, but we do need more toilets. But the most important thing is the accessibility – easy access to the parks, the entrance, and also access to parking spaces. (Jackie)

> Actually, the facilities, this is the main problem. For wheelchair users like me, we really need accessible facilities, for example, ramps. It would be helpful if parks could provide ramps so that we can access them without the need to be lifted by others. … In general, we need to have more toilets or restrooms in public places like parks. It would also be helpful if they can provide a small room where people can take a rest for one or two hours. (Linda)

Among the many things that are being requested for improvement, toilets are among the most pressing facility need that interviewees demanded.

> The most important things are the facilities. If they are supposed to be provided for PWDs, then they should be provided. They must also provide accessible toilets for PWDs. I don't mind if they can't provide special parking spaces for PWDs, but the toilet is compulsory! (Ali)

> The first thing that should be improved would be the toilets for PWDs. I don't know; maybe they have them now. The toilet is crucial! … Like I said earlier, every recreational place should provide suitable access for wheelchair users. And toilets for PWDs are also important; don't just provide a public toilet for normal people only. Nowadays, toilets for PWDs are important because PWDs now do go out more frequently than we used to in the old days. This is why the places have to be accessible, with ramps, toilets for PWDs …and must be PWD-friendly. (Cik)

Some of the interviewees urged development of PWD-friendly environments that are safe and accessible for all.

> For me, the location. If they can, they should make the place PWD-friendly, which means that they have to provide wheelchair accessibility, with ramps and toilets for PWDs. The important thing about PWD-friendly places is that the place needs to be friendly for wheelchair users. (Cik)

> I know this from the fact that many don't want to go out because they know the place does not have PWD toilets, and is not convenient with all the steps; PWDs are also scared that people might not help them if they need assistance. So, this is why we must have a PWD-friendly environment. (Mr. Fu)

> We need a safe place that has all the necessary facilities, irrespective of whether for the blind or wheelchair users. Because if there is such a place, we might not need to depend on others to assist us fully. This is the only way we can enjoy it! Our lives are interconnected with the environment and nature, so we need to be able to do outdoor recreational activities. So, ideally, we would like to have a safe and accessible environment. (Uma)

As highlighted by one interviewee, to make a park become PWD-friendly, the park needs to have integrated accessibility features that are linked with each other and that provide easy access from one area to another. As stated:

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For me, if the authorities want to build a park, they need to make sure that the park is accessible-friendly. And if the park is developed and built as accessible-friendly, make sure it is truly accessible-friendly. Don't let it be partially accessible, because partial accessibility to me is not accessible-friendly! (Joe)

Some of the interviewees emphasized the need for the authorities to adopt and incorporate universal design concepts in their future park development.

… it is impossible for them to provide ramps everywhere; it is enough if they can provide ramps at their existing pathways or boardwalks, just a minor addition to the existing platform so that the wheelchair user can also access it. When there is a platform, they have stairs, so instead of only stairs, they should also provide ramps. Things like these, they just need to be more sensitive to their surroundings. If they build ramps instead of stairs, all people can use them. Even people who push strollers can use them. But, of course, this also depends on the length of the stairs themselves. We can't climb the ramp if it is too steep. It is hard. So, if possible, with their reasonable best efforts, do something feasible that can make it more accessible for everyone, in the spirit of inclusivity. (Kerp)

I want to add one more thing, about landscaping. The authorities should not only look at the aesthetic aspect of the park, but they should also look at safety and accessibility. For example, a beautiful park that is full of light poles, cables, or ropes can become a difficulty for us. Another example is the tree that they planted – it is beautiful, but sometimes the branches that hang down can be a potential hazard for us. As I mentioned earlier, people with visual impairments, we focus down on the ground, so things like this can cause injuries to us. So, trees should be planted not too close to the track. The area should also provide rest areas, with thoughtful designs that are accessible and convenient, not only for us, but also for wheelchair users. Do not think only about beautiful designs; also consider the convenience and practicality for all users. (Ash)

Another important aspect of accessibility emphasized by interviewees is the effectiveness of information distribution and communication. At least one-third of the interviewees demanded that information be disseminated and communicated more effectively to the target audiences. For example: "For sure there are a lot of people who would like to participate in such activities, but they [program organizers] must make it widely known to the public or the target audiences… they need to promote it" (Ela);

Information regarding the activities is also crucial. There is a need to ensure an effective way for how to disseminate information. This is because, if the

information does not reach the specific audience (PWDs), there won't be any activity in which to participate. (Anjang)

Some of the interviewees also suggested that appropriate information be disseminated through websites and social media. As stated: "They should double the effort to promote outdoor recreation activities, and the best way to disseminate this information is through the use of social media outlets like Facebook, and also focus promotion through TV and newspapers" (Cindy), and

The best way to disseminate information is by using technology. What we have now, in terms of the technologies, is really useful. All information can be uploaded on websites and can be accessed by the public; they just need to provide the link to the website. It should be in written format, as well. Information through the Internet can be more efficient and fast compared to hardcopy. And it is cheaper, too, if compared to the latter. (Ash)

One interviewee also stressed that information should be disseminated in accessible formats to all audiences, including persons with visual impairments.

For means of information, if they just provide signboards or brochures for it, to me, they do not really care about us and do not want to involve us in the park's activities. Even sometimes, on paper, they state that the park is open for all people from all sorts of backgrounds, but, in reality, when we go there, we can't even access the information. This shows that it is not meant for us! If it is true for all, then they need to be more sensitive to our needs. (Nur)

CHAPTER 5

DISCUSSION AND CONCLUSIONS

The purpose of this study was to explore and describe the factors that enable or inhibit PWDs' outdoor recreation participation. Specifically, this study aims to identify the perceptions of PWDs in Malaysia about outdoor environments and outdoor recreation, the factors that facilitate or constrain Malaysian PWDs' participation in outdoor recreation activities, strategies they use to negotiate the constraints, and PWDs' recommendations for facilitating their participation. This concluding chapter discusses the key findings and links them with existing literature. This discussion is followed by scholarly and practical implications related to outdoor recreation participation and PWDs in Malaysia. Finally, this chapter discusses the study's limitations and provides recommendations for future research.

Summary of Findings and Proposed Modification of the Conceptual Framework

This study is delimited to persons with mobility impairments and visual impairments who reside or work in the Klang Valley, Malaysia. Guided personal interviews were used to gather data. Participants in this study consisted of eleven individuals having mobility impairments and ten individuals having visual impairments. This sample has representatives across three major ethnicities in Malaysia, people of both male and female genders, and those of diverse ages (adults from 21 to 55 years of age), levels of education, and employment status.

Taken as a whole, this study provides evidence of the usefulness of the integrated constraints, facilitators, and negotiation strategies models in understanding the perceptions, experiences, and challenges of PWDs' outdoor recreation participation in Malaysia. Additionally, most of this study's interviewee comments could be organized within this framework (Figure 2). In general, the study reveals that PWDs experience multiple constraints,

before and during their outdoor recreation participation. This study found that PWDs faced constraints in sequential order, and they needed to successfully negotiate the sequential and multiple types of constraints before they could proceed with their preferred outdoor recreation activities. While a successful negotiation process led to participation, some negotiations resulted in PWDs engaging in different types of outdoor recreation activities or levels of participation than they might otherwise have chosen. The study also revealed that facilitators for outdoor recreation participation vary depending on multiple factors, are distinctive to the type of disabilities and type of outdoor recreation activities. For example, the stronger an individual's preference was toward a specific type of activity and the more benefits they perceived they would receive, the more highly they viewed their personal desire (intrapersonal) as a facilitator.

Although most responses regarding interviewees' perceptions about the outdoor environment did not explicitly describe the characteristics of outdoor environments or identify specific activities or experiences as outdoor recreation, they did describe them as places and situations in which they have or could experience difficulties and constraints. The findings suggested that PWDs' descriptions of outdoor environments and outdoor recreation reflect their perceptions of the impacts on them (PWDs) of outdoor environments and recreation, rather than reflecting their objective descriptions or definitions of the two concepts. Consistent with this, numerous of the PWDs' recommendations for others to facilitate their participation strongly reflected factors they perceived as lacking. Other recommendations were based on facilitating factors that still could be improved, enhanced, or better maintained.

In conclusion, this study's findings demonstrate the usefulness of the integrated models in understanding the complex interactions of concepts (i.e., constraints, facilitators, and negotiations process) and the interplay between these concepts and the multiple intrapersonal,

interpersonal, and structural factors. This integrated framework, however, comprises primarily

behavioral elements. However, this study's findings infer, and in some cases specifically

identify, elements of the social-cultural context of PWDs in Malaysia that influence or interact

with the factors portrayed in the integrated model. Thus, I have revised the combined framework

to add the importance and influence of the underlying social-cultural context for the lives of

PWDs and their interactions with the broader society in their responses to outdoor environments

and outdoor recreation (Figure 4). Future studies, therefore, should explicitly explore impacts of

the social-cultural constructs that emerged from or are alluded to in this study on the factors

already included in the integrated model, and their influence on outdoor recreation participation.
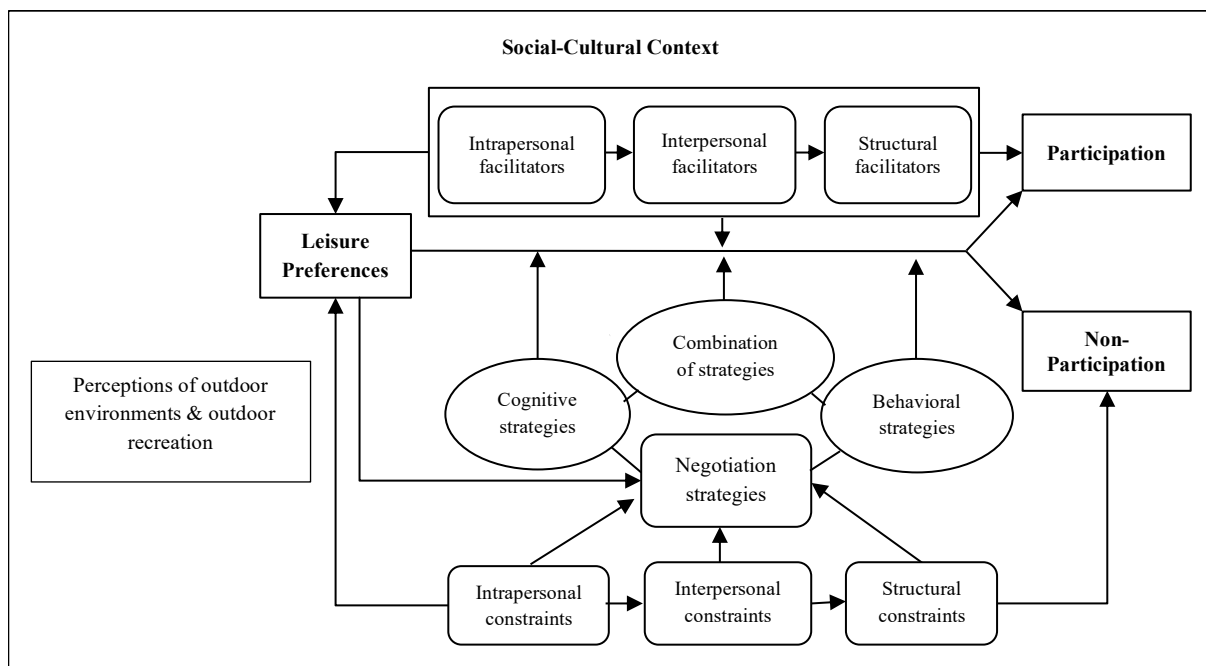
Figure 5: Proposed revised integrated model of constraints, facilitators, and negotiation strategies within the social-cultural context

The following discussions are organized by specific guiding research questions, as

represented by the subsections: perceptions toward outdoor environments and outdoor recreation,

constraints, constraint negotiation strategies, facilitators, and interviewee recommendations for

facilitating PWDs outdoor recreation participation.

Perceptions about Outdoor Environments and Outdoor Recreation

For the first research question, I asked interviewees their perceptions about outdoor environments and outdoor recreation. Although interviewees responses to these questions were limited, most responded with negative perceptions of both outdoor environments and outdoor recreation.

Perceptions of Outdoor Environments

Very few respondents described what they believe outdoor environments to be. Rather, they responded with limits imposed on them by outdoor environments. The majority of interviewees perceived the outdoor environment as inconvenient and inaccessible. The most often reported challenges are the lack of accessible facilities such as accessible restrooms, and structural barriers such as steps and obstructions blocking pathways. This is consistent with the findings of Saodah and Ardi Herman (2011) who reported that recreational facilities of all kinds often are not user-friendly due to poor execution of planning and design, causing hardships and creating safety issues for PWD users. The findings align with Abdul Kadir and Jamaludin (2012), Abdullah et al. (2017), and Hashim et al. (2012), who identified lack of enforcement, poor planning, and substandard ethics of care by authorities responsible for outdoor recreation provision in Malaysia.

Perceptions Toward Outdoor Recreation

Generally, the interviewees identified outdoor recreation activities as physical activities such as hiking and jogging, and included leisure activities such as sight-seeing. All were perceived as physically demanding, challenging, and not feasible for them. These perceptions result from lack of accessible and suitable opportunities for outdoor recreation activities and PWDs' inability to participate in or perform outdoor recreation activities due to outdoor

environments being unconducive to their participation. These negative responses about outdoor recreation participation are consistent with the findings of Sanmargaraja and Wee (2013), who reported that lack of accessible facilities, information, and opportunities led to low interest of PWDs to visit Johor National Parks. Lack of support from the government and limited implementation of existing policies and regulations related to the rights of PWDs in Malaysia contributes to limited opportunities for their participation in outdoor recreation activities (Wilson & Khoo, 2013). In turn, this leads to negative reactions by PWDs about outdoor recreation.

Constraints

For the second research question, I asked interviewees to share their experiences and describe situations in which they experienced difficulties related to their outdoor recreation participation. I found that PWDs experienced multiple constraints related to outdoor recreation participation. Collectively, they experienced intrapersonal, interpersonal, and structural constraints both before and during their participation in outdoor recreation activities. For some, the constraints prevented their participation; for others, constraints made their participation difficult, but not impossible.

This study found a sequential and hierarchical order of facing (and possibly negotiating) constraint types and outdoor recreation behavior. This study's findings support the hierarchical model of leisure constraints proposed by Crawford et al. (1991). In other words, respondents encountered constraints in a hierarchical order, beginning with them experiencing intrapersonal constraints first, then progressing to interpersonal and structural constraints, after they were successful in negotiating intrapersonal constraints. Interviewees reported that they encountered constraints related to their own personal attitudes and perceptions of outdoor activities (i.e., intrapersonal constraints). This often was related to their perceptions that they are discriminated

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against by the public, which, in turn, reinforces personal perceptions of their own physical limitations. This conforms with Jackson et al. (1993), who posits that an individual can move to another category of constraints only after they have negotiated their intrapersonal constraints. If successful in negotiating intrapersonal constraints, respondents often would be faced with interpersonal constraints such as misuse of accessible facilities by the public. If both intrapersonal and interpersonal constraints were addressed successfully, they still often faced structural constraints, both in accessing (e.g., transportation or on-site barriers) and participating in outdoor recreation.

Intrapersonal Constraints

Perceived discrimination, fear, insecurity, physical limitations, and poor health conditions emerged as the main intrapersonal constraints that hindered interviewees' outdoor recreation participation, or even their consideration of pursuing outdoor recreation activities. Similar findings were reported by Wilhite and Keller (1992), who found participants perceived that non-acceptance and discrimination impeded their involvement in outdoor recreation activities. The findings also are supported by others such as Burns and Graefe (2007), who reported fear as a dominant constraint to PWD participation in national park recreation.

Interpersonal Constraints

Interpersonal constraints such as the public's negative attitudes, lack of social support, and lack of support from authorities, are major factors that hinder PWDs' participation in outdoor recreation. Numerous studies reveal that PWDs have faced related constraints: lack of support from service providers (Anaby et al., 2013; Ross, 1993); lack of social support (Crawford & Godbey, 1987; Ghimire et al., 2014; Mahy et al., 2010); and negative attitudes of the Malaysian public (Abdul Wahab & Ayub, 2017; Kaur et al., 2015; Tiun & Khoo, 2013;

Wilson & Khoo, 2013). As reported by Saodah and Ardi Herman (2011), apart from lack of accessible outdoor recreational facilities, PWDs in Malaysia also have to endure public behaviors that result from their lack of care or awareness, or their negative attitudes; examples are vandalism to and misuse of accessible public facilities. Not only are their rights of accessibility often denied, PWDs often are excluded from many outdoor recreational programs due to the lack of understanding and negative thoughts about them by others. (Muhammed Kassim et al., 2014; UNICEF, 2017). Findings about the difficulty of finding suitable partners for the activities, as well as the difficulty of getting support from others, including authorities, are consistent with the findings of Burns and Graefe (2007), Freudenberg and Arlinghaus (2009), and Ross (2001).

Structural Constraints

Consistent with previous research such as by Daniels et al. (2005), Jaarsma, Dijkstra, Geertzen, and Dekker (2014), and Kastenholz et al. (2015), this study reveals that PWDs' outdoor recreation participation is affected by the lack of accessible facilities and services. In line with previous studies, the PWDs in this study attributed the lack of accessibility to poor regulations and management by the local authorities and park managers (Anaby et al., 2013; Daniels et al., 2005; Ghimire et al., 2010). Likewise, Abdul Kadir & Jamaludin (2012), Abdullah et al. (2017), Khoo (2011), Sanmargaraja and Wee (2013), and Wilson and Khoo (2013) all have reported lack of enforcement of existing policies regarding the rights of PWDs, poor planning, and poor management of public facilities and infrastructure by the authorities as factors limiting opportunities for and accessibility to public places for PWDs in Malaysia. The findings on structural constraints, such as lack of transportation, money and time, are consistent with findings of Anaby et al. (2013), Crawford and Godbey (1987) and Ross (2001). Although time,

money, and transportation may be constraining factors to persons without disabilities, the impacts of these factors to PWDs are more prevalent and apparent, primarily due to their low employment status, which often results in many of them living below the poverty line (Abdul Wahab & Ayub, 2017).

Constraints Differ between Respondents Having Mobility vs. Visual Impairments

Although this study shows that persons with mobility impairments and persons with visual impairments face some similar constraints, they also experience some different constraints. For example, all interviewees in the mobility impairments group (n=11) reported that structural constraints were related to lack of accessibility, resulting from both lack of accessible facilities and existing physical (structural) barriers. However, some of the interviewees having visual impairments (n=5) reported structural constraints related most often to existing physical (structural) barriers (e.g., objects and people blocking pathways) and negative public attitudes. All seven interviewees who perceived intrapersonal constraints as a challenge were those having mobility limitations. Eight out of the ten persons having visual impairments stated they have physical limitations, but most of those having visual impairments did not see themselves as having access difficulties because they do not have mobility issues. However, they did emphasize that they need assistance from others to accommodate their loss of sight, and to enable them to participate in outdoor recreation activities. In summary, this study indicates that constraints vary depending on an individual's type of disability. Findings from this study provide support to previous studies such as those by Bult, Verschuren, Jongmans, Lindeman, and Ketelaar (2011), Jaarsma et al. (2014), and Schreuer et al. (2014).

Constraint Negotiation Strategies

The third research question explored the type of negotiation strategies that Malaysian PWDs used to enable their participation in outdoor recreation. I asked the interviewees a series of questions related to their experiences and reactions when dealing with constraints, and the preparations they made to enable their outdoor recreation participation. From the narratives provided by the interviewees, it was found that PWDs do experience constraints and that they negotiate multiple constraints before they are able to participate in their desired activities (Crawford et al., 1991). Similar to results by Jackson et al. (1993), this study found that PWDs negotiate their constraints through cognitive or behavioral strategies, or by using a combination of both strategies. The following discussion of constraints negotiation strategies is presented in three categories: (1) cognitive strategies, (2) behavioral strategies, and (3) combination of cognitive and behavioral strategies.

Cognitive Negotiation Strategies

Most of the PWDs in this study reported that they did negotiate their constraints using cognitive strategies, either through de-emphasizing the challenges (n=17) and/or accepting and figuring out a way to deal with the challenges (n=12). Most of the interviewees de-emphasized the challenges as their main strategy to negotiate constraints. Interviewees downplayed the constraints and faced the challenges head on by readily accepting the constraints and adjusting to the challenges while continuing with their outdoor recreation pursuits. Many of the interviewees reported that they acknowledge the constraints and face them as part of a "challenging experience," which often results in pride or increased self-esteem. Dominguez (2003), in her study of women kayakers, reported that facing up to problems was the most often used cognitive negotiation strategy.

This study coincides with findings such as those by Jackson and Rucks (1995), who found that students "pushed harder" and "ignored their parents" as part of their cognitive strategies. Similarly, some of this study's interviewees reported expressing their dissatisfaction about the facilities or experiences, but that they still managed to cope and proceed with the activities. As identified in previous studies (e.g., Daniels et al., 2005; Lyu & Oh, 2014), some of the interviewees reported that there is nothing much that they can do regarding an unfavorable situation, so they simply had to accept the challenges and continue with their activities.

Overall, using cognitive negotiation strategies such as de-emphasizing challenges and enduring an unfavorable environment while trying to cope with the challenges have helped some of the interviewees prepare for negotiating the constraints related to their outdoor recreation participation. However, this often also comes at the cost of having to modify the expectations of their experiences, such as by limiting the space or changing the area for the activities. According to Jackson et al. (1993), individuals negotiate constraints by reducing cognitive hindrances through changing leisure aspirations or expectations (i.e., lowering standards). Henderson, Bedini, Hecht, and Shuler (1995), further support this notion by stating that, as a result of the negotiation process, some participants might choose different activities or lower their leisure aspirations (e.g., specialization, frequency). Consistent with this statement, interviewees in my study who reported using cognitive strategies stated that they are ready to lower their leisure aspirations and accept the challenges just to make participation possible. For example, Ela is a mother of three children. She used to be active in outdoor recreation activities, but since having children, she is no longer active. She still has the desire to participate in outdoor recreation activities, but is having difficulties due to her obligations for taking care of her children. Because

she cannot participate in her preferred outdoor recreation activities, which usually require more than a day, she needs to make do with alternative activities that take a shorter time.

Behavioral Negotiation Strategies

Behavioral constraint negotiation strategies are considered integral to PWDs' outdoor recreation participation. Jackson et al. (1993) and Jackson and Rucks (1995) found that most of their respondents adopted behavioral negotiation strategies of various types. Consistent with previous findings, all of the interviewees in this study reported that they negotiate their constraints by adopting one or more behavioral strategies. Most interviewees have reported using preemptive action strategies (e.g., preparing early, avoiding potential challenges, acquiring new skills and knowledge) to negotiate their constraints. These findings are consistent with those of Alexandris et al. (2013), Hua, Ibrahim, and Chiu (2013), and Jackson and Rucks (1995).

According to Henderson et al. (1995) and Schneider and Wynveen (2015), individuals use behavioral negotiation strategies to maintain the standard of their leisure aspirations. This proposition conforms to some of the findings in this study. For example, Mr. Fu is one of the interviewees with mobility impairments. He wanted to try SCUBA diving, but had fears because he did not know how to swim. To negotiate this fear, he took a preemptive action by facing the challenge and acquiring swimming skills: "I started swimming and learned how to swim because I wanted to join a scuba diving trip. So, I went to the training session where they taught me water confidence and swimming" (Mr. Fu). He also took other preemptive actions to overcome this fear: "To overcome these challenges …I will go to the Internet and learn from the videos about how other PWDs and wheelchair users swim. What are the techniques and adaptations that they need to acquire swimming skills?" (Mr. Fu). By taking positive behavioral actions, he managed to fulfill his aspiration to participate in scuba diving activities.

Combination of Cognitive and Behavioral Strategies

As stated previously, constraints vary depending on the individual's disability type, severity, personal attitudes, and the types of outdoor recreation activities in which they participate. Also, participation in outdoor recreation is heavily dependent on the successful negotiation of constraints (Burns & Graefe, 2007). As proposed in previous studies (e.g., Alexandris et al., 2013; Henderson et al., 1995; Jackson et al., 1993; White, 2008), outcomes resulting from negotiations are determined by the interactions between the strength of the constraints and the abilities and strength of the user. For example, a study by Stensland et al. (2017) reveals that a higher level of perceived self-efficacy probably results in higher motivation to use negotiation strategies to participate in fishing activities. This study reveals that each individual is different (e.g., abilities, resources, skills) and has experienced or dealt with varying types of environments, situations, and challenges. Because of these differences and the need to negotiate a variety of constraints, they often combine both cognitive and behavioral negotiation strategies (Jackson & Rucks, 1995; Lyu & Oh, 2014). In this study, most interviewees reported using a combination of strategies, including de-emphasizing challenges (cognitive) and taking alternative actions (behavioral).

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Facilitators

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To explore the fourth research question, I asked interviewees to share their experiences and examples of factors that helped them pursue their outdoor recreation pursuits (facilitators). This research question was guided by Raymore's (2002) leisure facilitator model. According to this model, facilitators are regarded as the conditions or factors that lead to or help facilitate leisure participation. As with constraints, facilitators are presented here in three categories: intrapersonal, interpersonal, and structural categories.

Intrapersonal Facilitators

PWDs' involvement in outdoor recreation is affected primarily by their recognition of the positive effects of their participation and their confidence in their own ability to succeed in their selected outdoor recreation activities (i.e., self-efficacy). In their studies, Jaarsma et al. (2014) and Shields, Synnot, and Barr (2012) reported that recognizing and valuing the potential benefits that will be derived from participation in outdoor recreation activities enhanced PWDs' participation. Some of my interviewees identified having joyous feelings, meaningful experiences, opportunities to socialize, and positive impacts on personal health as positively valued benefits. This finding is consistent with Wilhite et al. (2016), who listed factors such as health, enjoyment, social connections, and personal achievement as intrapersonal facilitators that help adults with disabilities participate in physical activity.

This study also identified self-efficacy as one of the essential facilitators to participation. To most of the interviewees, their self-efficacy is important to them in overcoming challenges and fear. This finding supports results from previous studies (Raymore, 2002; Stensland et al., 2017) that listed self-efficacy as one of the factors that helps promote the formation of leisure participation. In their study on leisure participation of youth and adults having developmental disabilities, Badia, Orgaz, Verdugo, and Ullan (2013) also found that higher levels of participation in leisure activities corresponded with high self-efficacy. Similarly, Kaur and Tan (2018), in their study of PWDs in Malaysia, proposed that, to reduce stigma and increase social inclusion, PWDs need to be self-empowered and have the ability to face challenges posed by the external environment. This is evident in this study, in which most of the interviewees indicated that having determination, positive attitudes, and strong confidence in their own abilities to

succeed in reaching their goals has encouraged and helped them to engage in their favorite outdoor recreation activities.

Interpersonal Facilitators

This study confirms that PWDs' facilitators for outdoor recreation participation are associated with the availability of support systems comprising friends, family, and the public. Consistent with results by Dahan-Oliel et al. (2014), Shields et al. (2012), Shikako-Thomas et al. (2013), and Wilhite et al. (2016), all of the interviewees in this study reported that having social support networks assisted them with outdoor recreation participation. For instance, Anaby et al. (2013), in their meta-analysis review of participation of children and youth with disabilities, reported that the most common facilitators are related to social support by family and friends.

Some of the interviewees also reported that being an active member of the society and having positive social interactions with other people also help facilitate their participation in outdoor recreation activities. Consistent with Bloemen et al. (2015), Hastbacka et al. (2016), and Woodmansee, (2016), factors related to positive social interactions such as connectedness to the disability community and positive community attitudes, were stated as important for outdoor recreation participation in this study. Sometimes interviewees stated that their reason for participation was not so much about the activities, but more because they wanted to socialize and be with friends. This aligns with findings of previous studies (e.g., Yau et al., 2004; Wilhite et al., 2016) that reported that PWDs choose to travel with friends, not necessarily because they need assistance, but because they want to have fun and meaningful experiences with their friends.

Structural Facilitators

Majority of the interviewees reported their involvement had been facilitated by the existence of accessible facilities, easy access to public areas, the availability of accessible services and activities, and the availability of tools or technology that can be used by PWDs to improve their functional capabilities. For example, this finding is in accord with recent studies (Huber et al., 2018; Shields & Synnot, 2016, and Wilhite et al., 2016) that have reported that PWDs' participation in outdoor recreation or leisure activities was facilitated by the availability of accessible facilities and environments. Similarly, many interviewees reported that availability of accessible facilities and the ability to access public areas often results in successful outdoor recreation participation. In addition, interviewees also indicated the availability of accessible services and organized programs, especially those made available by PWD-related associations, has made outdoor recreation participation possible for them. This finding has been exemplified in a report by Shields and Synnot (2016), who found that the availability of support from professionals in providing suitable programs for PWDs was one of the most frequently reported facilitators in their study.

The finding that PWDs were taking advantage of technology and tools to facilitate their outdoor recreation participation also conforms to research results by Lawlor, Mihaylov, Welsh, Jarvis & Colver (2006), who found that availability of parking spaces, structural adaptations, and utilization of specific equipment facilitated PWDs in social and leisure participation.

Facilitator Types Vary by Individuals and Activities

Findings in this study reveal that facilitators for outdoor recreation participation vary depending on multiple factors (Raymore, 2002), are distinctive to the type of disabilities of the individuals (Rimmer, Riley, Wang, Rauworth, & Jurkowski, 2004), and also depend on the type

of activities that individuals are pursuing (Schreuer et al., 2014; Shields & Synnot, 2016). For example, this study revealed that persons with mobility impairments (n=11) reported being constrained more by lack of accessible facilities (N=14) than persons with visual impairments (n=3). Consistent with identification of those as constraints, most of the interviewees who reported the availability of accessible facilities (e.g., the ability to access or use facilities and the availability of accessible facilities) as facilitators to outdoor recreation participation (N=15) were those having mobility impairments (n=11). An example from a different disability type, persons with visual impairments (n=8), reported that physical limitations (N=13) are one of their main constraints; to overcome this constraint, all but one reported needing assistance or guidance from others. In summary, facilitators for those with mobility impairments were primarily provision and maintenance of accessible facilities; persons with visual impairments were facilitated most by having the assistance of others rather than relying on provision of accessible facilities.

Recommendations from PWDs for Future Outdoor Recreation Participation

Based on their experiences with specific constraints and facilitators to outdoor recreation, the interviewees provided their recommendations for specific factors that could facilitate future outdoor recreation participation among PWDs in Malaysia, both for them and for PWDs who are yet to participate in any outdoor recreation activities. They had recommendations for three different groups of people – other PWDs, the public, and the authorities – plus recommendations for specific accessible facilities and services.

Recommendations to Other PWDs

Personal characteristics and attitudes are essential to PWDs' participation in outdoor recreation. Badia, Orgaz, Verdugo, Ullan, and Martinez (2011) suggested that participation is more likely to be affected by personal characteristics, such as self-determination, than the

disability itself. Consistent with this, other studies (Bloemen et al., 2015; Kaur & Tan, 2018; Woodmansee et al., 2016) support this notion by attributing participation in physical activities to an individual's positive attitude and a strong belief in their own ability. Many interviewees in this study expressed a consistent belief, stating that, for PWDs to be active, they need to have a positive attitude about themselves and toward others, to be optimistic, and resilient. As evidence, they provided words of advice such as: "must be stronghearted!" (Mr. OKU); "always need to be positive" (Ash),; and "you need to give it a try" (Sha). Some of the interviewees, in fact, suggested that other PWDs take advantage of outdoor recreation activities as a way to bring about positive change in their lives (Caldwell, 2005). Almost half of the interviewees addressed the need for other PWDs to be agents of change for themselves, which support research results of Abeyraine (1995) and Raymore (2002). They advised others to empower themselves by seeking knowledge, and letting others know of their needs.

Recommendations to the Public

Having the understanding and support of others also is important for successful participation of PWDs in outdoor recreation. However, Islam (2015), in his study on social exclusion and the rights of PWDs, reported that often PWDs in Malaysia still are being socially excluded from the mainstream and that their rights for inclusion often are denied. Multiple studies (e.g., Islam, 2015; Kaur et al., 2015; UNICEF, 2017) also highlight lack of knowledge and understanding about disability in Malaysia, which contributes to socially constructed barriers that hinder PWDs' participation in outdoor recreation. PWD comments from this study are consistent with these previous findings, and often included a plea for understanding and awareness among Malaysian society toward PWDs: "I hope more people can become more aware of the conditions and well-being of people like us [PWDs]" (Sam). They expressed a need

for the public to stop stereotyping PWDs and stressed the need for building a mindful society in Malaysia.

Respondents in this study also urged implementation of an educational campaign about the diversity and rights of PWDs. As stated by one interviewee: "This is why organizations like the NGOs and academic institutions should spread the information, educate people so that they can change their minds. Let them have the awareness, stop discriminating against us, and make us feel accepted in society" (Zack). As stated by Bullock and Mahon (2017), it is only through accommodation and social support from the community that full inclusion of PWDs can occur.

Recommendations to the Authorities

A third group of people identified as crucial to facilitating PWD participation in outdoor recreation is the authorities, including government authorities, NGOs, and service providers. Lack of action and support from authorities has been identified among the constraints reported by the majority of the interviewees. Specific factors identified by this study's interviewees, that are consistent with findings of others, are lack of accessible facilities (Khor, 2002; Sanmargaraja & Wee, 2013), poor facility development and management (Mahyuni, 2008; Saodah & Ardi Herman, 2011), and lack of follow-up actions and support from government, such as appropriate equipment, facilities, and funding (Khoo, 2011; Wilson & Khoo, 2013). Consequently, PWDs in this study have requested that the government take specific actions to tackle these problems.

Consistent with Shields and Synnot (2016), interviewees also suggested collaborations between government agencies and other organizations to more efficiently and effectively address the needs of PWDs and to improve access to outdoor recreation facilities and services. As recommended, "it can start with the NGOs working together with government agencies. The

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government will respond to feedback from the people" (Kerp), and "we need teamwork from NGOs and local authorities to provide more programs" (Sam).

Some interviewees requested that the authorities organize more accessible and suitable outdoor recreation programs. Consistent with previous studies (Kastenholz, Eusebio, Figueiredo, & Lima, 2012; Shields & Synnot, 2016), interviewees considered outdoor recreation programs or activities organized by the authorities, especially by the organizations related to PWDs, as desirable because usually they are organized according to the needs of PWDs. As stated by one interviewee: "Usually when programs are organized by associations, they will provide all the necessities. They will cater to all the things that PWDs need, including the guide!" (Anjang).

Government involvement, and partnership with NGOs, facilitates easier access to recreational services due to reduced bureaucratic red tape and the organization's experience in designing a program. As mentioned by one interviewee, "they [the NGOs] know how to handle the situation [red tape]. They have what it takes to persuade and influence the authorities to make the facilities or activities available for us" (CT).

Recommendations for Specific Accessible Facilities, Services, and Information

As previously mentioned, many interviewees in this study highlighted the need for accessible facilities and services (e.g., accessible restrooms, PWD-friendly public transportation, Braille tracks). This is consistent with findings of others (e.g., (Kaur et al., 2015; Kaur & Tan, 2018; Sanmargaraja & Wee, 2013), who have highlighted the lack of PWD-friendly facilities in Malaysia. As the interviewees recounted their experiences, many stated that they had encountered multiple challenges related to physical barriers and lack of accessible facilities that prevented or inhibited their participation. As one mentioned: "I know this from the fact that many don't want to go out because they know the place does not have PWD toilets, and is not

convenient because of all the steps" (Mr. Fu). Many of the interviewees urged development of PWD-friendly environments that are safe and accessible for all. As pointed out by Hastbacka et al. (2016), development of an accessible environment should focus not only on wheelchair users, but should be accessible and suitable to all, including persons with visual impairments.

Consistent with Hatsbacka et al. (2016), interviewees also recommended access to information as part of their demand for accessible facilities and services. Some of the interviewees also pointed out the need for the information to be disseminated and communicated more effectively and in formats accessible to the target audiences; the information needs to be accessible and must be disseminated broadly and to all audiences, including persons with visual impairments. Importantly, as repeatedly mentioned by some interviewees, accessible information should also include information regarding the availability of accessible facilities and services. As previously mentioned by others (McKercher, Packer, Yau, & Lam, 2003; Yau et al., 2004), information about the availability of accessible services is as important as the accessible services themselves. As stressed by one interviewee: "Failing to provide this information [regarding the availability of accessible services] has already indicated that you are not disabled-friendly, because the information itself is considered part of accessibility" (Kerp).

Scholarly Implications

This study contributes to the growing body of knowledge about outdoor recreation and leisure behavior generally, and more specifically among PWDs in Malaysia. Importantly, this study provides evidence about the usefulness of the facilitators and constraints model for understanding the needs of and challenges faced by Malaysian PWDs in their outdoor recreation and leisure participation. It is my hope that results will provide a foundation for future work regarding outdoor recreation participation, preferences, and needs of PWDs in Malaysia.

This study contributes to the understanding of PWDs' outdoor recreation participation through the intrapersonal, interpersonal, structural lens of constraints, facilitators, and negotiation strategies. To date, few studies have been carried out to understand PWDs' participation in leisure or physical activities in Malaysia. However, of those than have been conducted, almost all focus mainly on the constraint and constraint negotiation aspects. Of the studies targeting constraints, most have focused on structural constraints (e.g., structural barriers and lack of accessible facilities). This study supplements these by identifying also the roles of intrapersonal and interpersonal constraints, particularly as precursor constraints to be negotiated prior to PWDs facing structural constraints. As one of the few, if not the first, to investigate the constraints-facilitators-negotiations relationship related to outdoor recreation participation among PWDs in Malaysia, this study provides insights about the outdoor recreation experiences of PWDs in Malaysia and the constraints and facilitators that they encounter in the Malaysian social, political, and economic context with regard to their outdoor recreation participation. Also, the framework used in this study provides an understanding of the interplay between constraints, facilitators, and negotiation strategies that influence PWDs' decisions and/or abilities to pursue their preferred outdoor recreation activities.

This study's findings highlight the importance of early exposure, transitions to adulthood, and social support during the early stage of PWDs' lives. Although not all PWDs have experienced disabilities during the early years of their lives, the early stage of a person's life with a disability (e.g., in the case of accident or illness leading to the disability) is relevant to these findings. Several interviewees stated that their ability to socialize and be independent are the result of early exposure to the public and availability of support systems (e.g., parents, teachers, friends). This is consistent with findings from earlier studies that have emphasized the

importance of the roles of support groups (Anaby et al., 2013; Shikako-Thomas et al., 2013; Dahan-Oliel et al., 2014) and successful transitions to adulthood of PWDs (Samalot-Rivera, Lopez-Aleman, & Volmar, 2015; Woodmansee, Hahne, Imms, & Shields, 2016) as factors that influence PWDs' active participation in later years. Examples of successful early exposure or stage-of-life transitions from children to adulthood, as explained by some of the interviewees, were their attribution of their ability and confidence to socialize and participate in outdoor activities to having participated in an inclusive school environment. This coincides with results of other studies (e.g., Badia et al., 2013; Imms, Reilly, Carlin, & Dodd, 2009) that highlight the positive effect of an inclusive style of schooling on children with disabilities' leisure participation. Taken together, these findings suggest the positive influence of having early exposure to outdoor and physical activities as well as social support in promoting an active lifestyle of PWDs. However, further study needs to be done to help us establish a deeper understanding of these impacts, for example, by exploring the effect of inclusive schooling for PWDs specifically on their outdoor recreation participation in Malaysia.

It is interesting to note that some of the interviewees in this study recognized outdoor recreation participation as an opportunity to develop a 'sense of self' and manifest their real 'identity' to the public – an identity beyond the boundaries of disabilities. As reported by some interviewees in this study, they consider outdoor recreation opportunities as a platform to show that they are not what others think of them and that their disabilities and physical limitations do not bound their ability and desire to participate in outdoor recreation, which is in contrast with others' ableism perspectives. Similarly, this finding matches those observed in earlier studies in other contexts (e.g., Burns, Watson, & Paterson, 2013; Caldwell, 2005), which found that PWDs tend to participate in challenging activities as a way to reinvent their personal sense of self and as

a way to express a sense of who they are. In other words, PWDs take advantage of leisure activities as a means to transcending negative life events by creating a new positive self-image. However, the present study provides only a glimpse of what could be an important determinant for outdoor recreation participation for PWDs. Therefore, further investigation needs to be conducted to expand on this notion in the Malaysian context. This is highly important, especially in the environment where ableism and stigmatism still prevail among the broader Malaysian population.

Finally, this study highlights the importance of the qualitative approach in the effort to understand PWDs' outdoor recreation participation within the Malaysian context. It is imperative that researchers use this approach rather than only quantitative methods, or use it in combination with quantitative methods, as it facilitates in-depth understanding and meanings of the issues that PWDs face with regard to their outdoor recreation participation. This study contributes by unveiling meanings and phenomena that have not yet been explored in previous studies in Malaysia. The exploratory nature of this study has allowed PWDs to provide their own explanations for complex issues as related to outdoor recreation participation and to consider the array of contextual factors that govern the socially constructed world of PWDs in Malaysia. One importance of this study is that the emerging themes identified here can be used as foundations for further research, incorporating the context and variables within the cultural and sociopolitical context of Malaysia that can be used to construct future quantitative research with larger PWD populations. Finally, this study will contribute to the literature related to outdoor recreation, leisure constraints, and facilitators among PWDs in a specific context, Malaysia.

Practical Implications

Data for this study were collected from a group of PWDs in Klang Valley, Malaysia. Although the results cannot be generalized directly to all types of PWDs or to all PWDs in Malaysia, the findings do provide insights for practical applications of results in informing development of future policy, facilities, services, social awareness and behavior as related to outdoor recreation for PWDs in Malaysia.

First, this study highlights the lack of awareness among Malaysians in general. Even with the provision of accessible facilities and accessible programs, if awareness by the public is lacking, inclusion and participation still will be limited. Thus, study results suggest that the development of accessible outdoor recreation opportunities must start with educating the society. The Malaysian community, in general, must be educated about diversity, equality, and the rights and needs of PWDs. This includes educating non-PWDs as well as PWDs, which can help build attitudes of confidence, self-empowerment, group cohesion, sense of belonging, and sense of relatedness and normalcy within and across both populations (Dorsch et al., 2016; McGill, 1996, Patterson & Pegg, 2009). Such promotion of awareness, understanding, and self-belonging of and within diversity hopefully can lead to an increase in advocacy efforts by the community. Only after this cognitive and affective foundation has been established can efforts focus on improving other factors in policy, services, facilities, programs, and behaviors.

Second, this study highlights the importance of outdoor recreation toward social inclusion. Outdoor recreation participation, especially in the context of Malaysia, can and should act as the bridge that brings together both the PWDs and the public in a fun and meaningful settings. The social experiences and exposures from outdoor recreation participation can be deemed as crucial, especially in the efforts of breaking the psychosociological gaps (e.g., stigma,

ableism) that both groups have toward each other. This is highly crucial, especially in the context of Malaysia, where many are still unexposed to the diversity of "disability." Through outdoor recreation participation in an inclusive setting, the public can experience and witness first-hand how PWDs and they are not different, and realize that each individual has different needs to overcome particular challenges in life (Bloemen et al., 2015; Dorsch et al., 2016). Outdoor recreation participation, therefore, can become a platform where PWDs and the public can socialize together in a conducive and everyday-like setting. The experience from this will eventually help both PWDs and the public, in general, to learn about each other, thus creating meaningful relationships, respects, trusts (Anderson et al., 1997; McAvoy et al., 2006; Patterson & Pegg, 2009), and will also help create a sense of normalcy among each other, between PWD and the public in the community (Dorsch et la., 2016), which eventually helps to promote social inclusion.

Third, study results may help outdoor recreation providers and relevant agencies understand the needs, constraints, and facilitators of PWDs, and help them develop and implement accessible outdoor recreation opportunities more effectively and widely than done currently. One important element in providing comprehensive, accessible and suitable opportunities is through implementing appropriate planning and design of facilities that suit the needs of all. As evidenced in this study, the needs and requirements for PWDs vary across individuals. Hence, in providing leisure and recreation opportunities for PWDs, it is imperative to understand that there is no such thing as a "one-size-fits-all" approach (D'Eloia & Sibthorp, 2014; Metcalf et al., 2013). Certain considerations – for example, the suitability of the types and time of the activities, the sensitivity of PWDs, the viability of the activities or programs with regard to available financial and human resources, and existing level of expertise, technologies,

and facilities – need to be addressed prior to or early in the planning process. One way to ensure success in meeting these needs is to include PWDs, facilitators, volunteers, and program organizers in the planning and decision-making processes.

Fourth, insights provided by PWDs involved in this study can be used as guidelines for policymakers and other stakeholders to improve the design and condition of leisure and recreational services in Malaysia. The government, as the policymaker, needs to play an integral role in ensuring that accessible and suitable opportunities for all people are provided. The federal government can play its part by revising and strengthening existing policies. This can be done by inviting PWDs' engagement in the policy development process, making information regarding existing policies accessible, especially to the government personnel and the implementers, as well as providing ongoing education, training, and technical support related to the provision of accessible opportunities in outdoor recreation. Findings of this study also could intensify development of accessible infrastructure and facilities, ensuring integration between facilities, such as from accessible public transportation to places of attraction (e.g., recreational parks), and following universal design guidelines. Local city councils should provide support for a federal government development initiative. By collaborating and combining all the expertise, skills, funds, and human resources, local and federal governments could develop and implement a comprehensive plan to integrate accessible and inclusive structural systems. They also could increase efforts to provide stricter enforcement of existing regulations related to the rights of PWDs, and to prevent the misuse of public properties, especially of accessible public facilities. This also includes improved management of public facilities and amenities to ensure that Malaysian parks meet accessibility standards, if not improve upon them, of existing all-accessible parks elsewhere in the world.

Fifth, non-government stakeholders could expand their involvement in the PWD community. Private sector businesses and NGOs could develop collaborations and partnerships to design and implement accessibility-friendly facilities and services. They could use their expertise and resources to provide much-needed support to complement the work of other stakeholders. One way to achieve this is through implementing adaptive techniques and strategies (Hastbacka et al., 2016). Adaptive strategies can be in the form of the "get it right from the start" approach, as proposed by Lieberman, Lytle, and Clarcq (2008). This can be done by utilizing Universal Design for Instruction (UDI), adaptive equipment, and by incorporating the uses of sensory adaptation technologies and tools in outdoor recreation facilities and programs. Partners involved with formal or informal partnerships could explore innovative ways to construct facilities and implement programs based on ideas proposed by PWDs.

Lastly, increased promotion and offering of accessible opportunities can contribute to an increase in outdoor recreation participation among PWDs that, in turn, can result in two types of benefits: personal and communal. For personal benefits, increased participation in outdoor recreation can result in social inclusion and active lifestyles of PWDs. Such involvement provides an opportunity for PWDs to feel socially accepted and included as part of the larger community (Patterson & Pegg, 2009). Furthermore, it also helps to inspire positive self-concept, self-esteem, trust, group cohesion, and individual skill development among PWDs (Anderson et al., 1997). These will allow PWDs to better adjust to their disabilities and help improve their social and life skills, both of which can contribute to employment and independent living. In terms of communal benefits, increased outdoor recreation participation by PWDs can lead to a more diversified outdoor recreation community in Malaysia. Through outdoor recreation participation, the public, in general, can experience and witness how they and PWDs are not

different in many ways, and realize that each individual has different challenges to overcome in life (Bloemen et al., 2015; Dorsch et la., 2016). The exposure from this experience can help both the public and PWDs learn about each other, hopefully leading to meaningful relationships, mutual respect, and trust (Anderson et al., 1997; McAvoy et al., 2006; Patterson & Pegg, 2009), and help cultivate a sense of normalcy among all people, with and without disabilities, in the community (Dorsch et al., 2016). Over time, this hopefully can lead to a more inclusive society in which people from all backgrounds can learn to understand and embrace diversity.

Study Limitations

This study included respondents having only two types of disabilities and involved a limited number of PWDs in the Klang Valley of Peninsular Malaysia. Hence, the lack of external validity in this study limits the application of this research to the individuals studied, and cannot be generalized to represent all PWDs in Malaysia. Other individuals having different types and severity of disabilities, and from other locations in Malaysia, particularly from rural areas, may have different characteristics and life experiences; therefore, they may provide different responses.

Additionally, although results of this study represent the context of PWDs in Malaysia, they do not intentionally incorporate the cultural values, perspectives, and life experiences of PWDs or the cultural underpinnings of society's views about PWDs. In other words, this study explores only the Klang Valley PWD interviewees' perceptions and experiences related to intrapersonal, interpersonal, and structural factors, without giving any specific consideration to cultural elements. Therefore, the form and extent to which cultural, traditional, sociological, or religious perspectives influence constraints, facilitators, and negotiation strategies of PWDs are still not explicitly comprehended. Because constraints and facilitators may vary between and

within one's cultural perspectives, and because this study did not specifically ask questions about cultural influences, it is difficult for this study to ascertain broadly representative, or differential, meanings of PWDs' perceptions of and decisions about outdoor recreation participation.

Although this study intended to explore the perceptions of PWDs in Malaysia related to outdoor environments and outdoor recreation, responses received with regard to these specific research questions were limited. Only a few of the PWDs responded to these questions with what they believed were the requested "perceptions." However, most PWDs provided prompt answers that reflected their concerns about or the limits imposed on them by outdoor environments rather than providing their own descriptions of what they perceived outdoor environments to be. This limitation could be addressed in future research by clarifying the context and intent of each question more explicitly – which, in this context, is about their perceptual descriptions of the concept, and not about their experiences with or reactions to outdoor environments – before asking the questions. Researchers also should find effective ways to ask questions requiring complex rather than simplistic responses. Use of appropriate follow-up or probing questions is particularly crucial.

In addition, I could have improved interviewee identification and the interview process by spending more time integrating with the PWD community and building rapport between them and me, as the researcher. Due to budget and time constraints, it was difficult to spend more time with the PWD community prior to conducting interviews or to increase the number of interview sessions. Conducting multiple interview sessions would have increased the study's depth and richness, particularly if I could have had more time to build rapport. Some of the interviewees were reluctant to engage in follow-up interviews, in part due to lack of rapport. Spending time to

integrate with the community and to build trust could have led to a better conversation environment and increased the depth and quality of information provided by interviewees.

Another limitation of this study was the need to use two languages, in the interview guide development, data collection, analysis, and the decision to allow the interviewee to choose their preferred language, either Malay or English. Although many of the interviewees chose Malay, they sometimes mixed their Malay responses with English. While this form of colloquial speech is common in daily communication, the English loanwords used sometimes may not represent the same meaning in the Malaysian context as the word is used by native English speakers. This limitation had to be addressed carefully by rigorously checking and rechecking the transcripts and research memos to ensure that translations represent the interviewees' meanings in the context of the conversations. To begin to address this, in certain cases in this document, I provide explanations, placed in brackets, as an effort to provide contextual explanations to the reader regarding the words or sentences in the example excerpts.

A final limitation involves the credibility and dependability of this research. In this study, strong measures have been taken to ensure the credibility of the research, for example, by conducting systematic documentation, and using external auditor checking (inter-coder). However, due to time and budget constraints, it was difficult to follow up with all of the interviewees with the member-checking process. Also, as much as the research protocol was followed to avoid any form of bias, aspects of the researcher's personality could perhaps have influenced the interviewees' responses. Related to dependability, although the consistency of the inquiry process was strictly observed, in certain cases, some slight changes in the way I asked the questions might have taken place during the inquiry process. This was done to allow the researcher to accommodate the anxiety and passion of the interviewees as well as to ensure that

the emerging conversation stayed focused on the research questions during the interviews. Although allowing flexibility encourages less rigid two-way interaction and uninterrupted feedback from interviewees, it possibly would have decreased the reproducibility of the research.

Recommendations for Further Research

This study provides a foundation for understanding PWDs' involvement, or lack of involvement, in outdoor recreation in the Malaysian context. Nevertheless, additional research is needed to more fully understand the drive behind PWDs' decision to choose or refuse outdoor recreation participation. As previously mentioned, very little research has been dedicated to understanding the roles of constraints negotiation and facilitators toward leisure participation, especially in the Malaysian context. Therefore, it is hoped that findings from this study can serve as a launchpad for future research to better understand the issues regarding outdoor recreation participation among PWDs in Malaysia.

This study intentionally was focused on persons with only two types of disabilities and involved a limited number of PWDs in the Klang Valley, Malaysia. Therefore, for future research, a larger-scale study to investigate a larger number of interviewees, as well as those having varied types and severity of disabilities, is recommended. Potential future research also should include interviewees from other regions in Malaysia, particularly in rural areas where facilities and services may be more limited than in urban areas, and life experiences and residents' attitudes different.

Second, because constraints negotiation and facilitator research of PWDs as related to outdoor recreation participation is almost non-existent in Malaysia, future research should focus on these specific topics and target populations, as well as strive for more depth in responses. Future research could replicate this study and more fully explore specific research topics, for

instance, focusing only on the accessible aspects of outdoor recreation services and the interplay between constraints, facilitators, and negotiation strategies. Expanded results could provide a broader, deeper, and richer understanding of the needs of Malaysian PWDs with regard to outdoor recreation participation.

Third, it would also be useful for future research to include the cultural context for the themes identified in this study (related to intrapersonal, interpersonal, structural elements). As pointed out by Gurbuza and Henderson (2014), while Crawford et al.'s (1991) hierarchical model offers a theoretical framework for understanding leisure from a social psychological perspective, it does not address leisure behaviors in terms of the sociocultural perspective of the respondents. Although the present study was conducted within the context of PWDs in Malaysia, it did not focus on their cultural norms and values, which could be drivers that influence PWDs' perceptions of and decisions about outdoor recreation participation. By including this cultural context, research could explore respondents' perspectives based on a sociocultural context that includes the religious, societal, and sociopolitical values of the individual and community in which the individual lives (Shaw & Henderson, 2005). In doing so, it could provide another critical and new perspective in understanding PWDs' outdoor recreation participation in the Malaysian context. It also could identify, clarify, and provide underlying reasons for some of the misconceptions that exist in the Malaysian society toward PWDs and their outdoor recreation participation.

Fourth, this study used guided interviews, a qualitative approach, to explore PWDs' perceptions and experiences associated with their outdoor recreation participation. Future research, built on themes and ideas from this study, could use a widely distributed survey instrument, based on results and emerging themes from this study, to collect data that would

permit quantitative analysis or identification of correlations or causal relationships among variables. Such a broader scale quantitative study could help predict participation decision-making patterns of Malaysian PWDs to outdoor recreation participation, which, in turn, could guide policy-making, facility construction, and programming priorities.

Fifth, future research should specifically involve PWDs who have never participated in any outdoor recreation experiences, or those who have not participated in outdoor recreation activities for a long period of time. Such a study could provide perspectives different from those of my interviews, which included active participants as well as some who do not participate.

Sixth, another recommendation for future research is to compare PWDs having various types of disabilities, type and time of onset of the disability, severity of disabilities, and level of participation in specific types of outdoor recreation activities. Such a study could provide a better understanding of PWDs' outdoor recreation experiences, for example, from the perspective of a specific outdoor recreation activity, rather than general outdoor recreation activities. It also could allow the researcher to examine the complex nature of and the interactions among constraints, facilitators, and negotiation strategies tied to a specific activity or level of disabilities. Such study results could provide insights that reflect the needs of PWDs having specific types of disabilities or activity preferences. This new understanding and knowledge could help outdoor recreation providers, relevant agencies, and local community members understand these needs, constraints, and facilitators, and help them to develop and provide accessible and suitable outdoor recreation opportunities more effectively than done currently.

Seventh, it is thought-provoking to look at the significance of the use of mobile-based ride-hailing services (e.g., GRAB) as the preferred alternative for transportation among Malaysian PWDs. As highlighted in the study, use of GRAB transportation has positively

impacted mobility of PWDs, and so is considered a strong facilitating factor for PWD participation in outdoor recreation. Hence, it could be interesting for future studies to specifically explore the impacts of this online application service and other digital and adaptive technologies with regard to PWDs' outdoor recreation participation.

Finally, the current study was limited to the perspectives of PWDs with regard to their outdoor recreation experiences. While this particular study is important to understanding outdoor recreation participation among PWDs in Malaysia, further inquiries also should explore the perspectives of the public, or persons without disabilities, and their attitudes and behaviors toward PWDs generally, and their outdoor recreation participation. Such a study could provide insights about social attitudes of Malaysians toward PWDs and that reflect the current condition of outdoor recreation participation among all Malaysians. In turn, this could contribute to a better understanding of the potential for providing inclusive outdoor recreation opportunities in Malaysia.

APPENDICES

APPENDIX A: Consent Form for Interview

Research Information Sheet and Consent Form

Outdoor recreation experiences among persons with disabilities (PWDs) in Malaysia:
Constraints, facilitators, and constraint negotiation strategies.

Researchers are required to provide information regarding the scope of this study. You should feel free to ask the researcher any questions you may have.

1. PURPOSE OF RESEARCH

The purpose of this study is to examine your outdoor recreation experiences. It is intended to help us better understand your interests in and experiences as well as the difficulties, challenges, and factors that enable or inhibit your and other persons with disabilities' (PWDs) participation in outdoor recreation activities, and to understand the measures and steps that you and they take to enable participation in outdoor recreation activities.

2. WHAT YOU WILL DO

In this study, you will be asked about your perceptions, opinions, and experiences related to outdoor recreation in Malaysia, even if you personally have not participated. The first in-person interview will take about 45-60 minutes and will be audiotaped. This will be followed by a second interview, which may be conducted through phone, video call, or in-person interview to confirm and clarify your responses. The second interview will be approximately 30 minutes. You will be rewarded with a small token of thanks in the form of a gift voucher once both interviews are completed.

3. POTENTIAL BENEFITS

You will not directly benefit from your participation in this study beyond receipt of the thank you voucher. However, your participation in this study will contribute to the broader understanding of the factors that inhibit and enable Malaysian PWDs' participation in outdoor recreation. This information will help us to better understand how the concept of accessibility and inclusiveness can be discussed and planned for effectively by local authorities, park managers, and local community members. Additionally, this will help policymakers review and reconsider existing policies to facilitate and help increase outdoor recreation participation among PWDs in Malaysia.

4. POTENTIAL RISKS

There are no foreseeable risks associated with participation in this study. However, if there are any questions that make you uncomfortable or upset, you are always free to decline to answer any question or to stop your participation at any time.

5. PRIVACY AND CONFIDENTIALITY

Reasonable efforts will be made to keep the personal information in your research record private and confidential. Interview responses for this project will be recorded and handled confidentially.

You will be asked to provide a pseudonym that will be used throughout the study. The sessions will be audiotaped, transcribed, coded, and kept in locked storage. The list of code numbers with the subject names will be kept in separate locked storage in a different location. All data entered into computers will be password protected. Data will be kept for three years (per United States federal regulations) after the study is complete and then destroyed. The results of this study will be used for educational purposes in the form of a published dissertation and journal papers, and for possible policy and practice reviews and recommendations. However, no information will be included that would reveal your identity.

6. YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Participation in this study is entirely voluntary, and you may refuse to participate or withdraw at any time. We will observe your right with the utmost respect and without any prejudice. In no circumstances will we judge you or your professional affiliation based on your participation throughout the study.

7. CONTACT INFORMATION FOR QUESTIONS AND CONCERNS

If you have concerns or questions about this study, please contact the researchers listed below:

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If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at (01) 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Road, Suite 136, Lansing, MI 48910, USA.

CONSENT

Your signature below indicates that you voluntarily agree to participate in this study.

Signature: _____   Date: _____

Name: _____   Self-selected Pseudonym: _____

You will be given a copy of this information and consent form to keep.

APPENDIX B: Interview Guide Checklist

1. Check & test recording device every time before interview (batteries, smartphone as back-up), check all documents/forms, notepad, pen, personalization of the interview guide.
2. Greet and acknowledge the participant (interviewee).
3. Introduce myself (brief personal background).
4. Introduce the study.
5. Obtain consent - *Research Information and Consent Form.*
6. Obtain background information - *Participant Background Information Sheet.*
7. Proceed with the interview – *Interview guide*.

Greetings

Hi. How are you? Thank you for your willingness to participate in this interview. Your participation in this study will be helpful toward better understanding outdoor recreation participation among people with disabilities (PWDs) in Malaysia. Also, I have prepared a small token of appreciation for you, as a form of gratitude for your valuable contributions to this study. After the interviews are completed, you will be entitled to receive a gift shopping voucher.

Introduce myself

Before we start, let me first introduce myself. My name is Mohd Aswad Ramlan. I am a PhD student in the Department of Community Sustainability, Michigan State University. I am also an academic staff member working with the Department of Recreation and Ecotourism, Universiti Putra Malaysia. I have been interested in working toward advocating for and providing inclusive and accessible outdoor recreation opportunities, and also promoting the benefits of outdoor recreation for all. I also hope to push forward a community-based inclusive outdoor recreation initiative that hopefully will bring positive changes to the community at local and national levels. I have vowed to work hard, and to apply my many hats – as academician, outdoor enthusiast, nature guide, and, more importantly, as a member in the society – to work toward achieving this goal. An important initial step in this is to learn from members of the PWD community, such as you, about what are your perception, preferences, and needs related to outdoor recreation participation.

Introduce the study

The purpose of this study is to explore outdoor recreation experiences among people with disabilities (PWDs). It is intended to help us better understand the difficulties, challenges, and factors that inhibit or empower people with disabilities (PWDs) toward their participation in outdoor recreation activities. It is also to understand the measures and steps that they took to enable them to participate in outdoor recreation activities. Additionally, this study will hopefully provide for managers and planners to improve accessibility to outdoor recreation programs and places, and to provide inclusive outdoor recreation programs.

Obtain consent

For this study, you are being asked to provide information about your experiences with and opinions about outdoor recreation in Malaysia. The interview will be audio recorded to ensure that I do not miss any points. Please read the **Research Information Sheet** and complete the **Consent Form**. This interview will take about 45-60 minutes, and the entire session will be audiotaped for my note-taking. Please provide your honest answers to the questions, and let me know if you choose to *not* answer any of the questions. Refusing to answer a question or withdraw from the interview is perfectly fine.

Obtain background information

Before we start, I would like you to complete the **Participant Background Information Sheet**. This is crucial as it will help me understand experiences and opinions by groups of PWDs, and so that I can tailor our discussion to your background.

Note that you are asked to provide a pseudonym so that I can keep your identity and responses confidential.

Proceed with interview

Are there any questions before we begin?

~ Refer to the **Interview guide**.

Thank the Interviewee

Thank you once again for your time and cooperation. Please expect my call, in one or two weeks, to arrange for the 2nd interview and also for receiving a copy of the transcript for you to review and validate. Also, are there others in your group, or other PWDs you know who might be willing to share their experiences about outdoor recreation participation, regardless of whether or not they have previously participated in any outdoor recreation activities? I may or may not contact them, but am trying to identify other potential interviewees. And if yes, may I know why do you think they might be appropriate for an interview, based on the interview I just had with you?" Again, I thank you for your comments and inputs in this study. Your participation in this study will help us better understand the concept of accessibility and inclusiveness in outdoor recreation and eventually help to facilitates and promotes outdoor recreation participation among PWDs in Malaysia.

APPENDIX C: Consent Participant Background Information

Your participation will be significant in better understanding outdoor recreation participation among PWDs in Malaysia. It will also provide insights for outdoor recreation managers about how to improve provision of inclusive outdoor recreation resources and programs, and help policy-makers review and reconsider existing policies to facilitate outdoor recreation participation among PWDs in Malaysia.

Your participation in this study is voluntary, and you may choose to discontinue your participation at any time. All responses will be kept private and confidential. Do let me know if you have any questions regarding this interview. Before we proceed with the interview session, I would like to know a bit about your background. Please answer the questions as specifically as you can.

Please choose a pseudonym that you would like to be used in this study.

Name: _____ Pseudonym: _____

Demographic profile of respondents

1. Age:	_____ Years
2. Sex:	Male Female
3. Ethnicity:	Malay Chinese Indian Other (specify): _____
4. Marital Status:	Single Married Divorced Other (specify): _____
5. Highest education level completed:	No formal education Primary school Secondary school Diploma Degree Other (specify): _____
6. Employment status:	Full-time Part-time Retired Unemployed Student Homemaker Other (specify): _____

7. Please describe the nature of your disability. (optional)

   _____
   _____

8. How is your disability affecting the activities in your daily life? (optional)

   _____
   _____

APPENDIX D: Interview Guide (Revised)

Pseudonym : _____
Location : _____
Date : _____ **Time** : _____

"Ice Breaker" (refer to Interview Guide Checklist)

- **I'm interested to know about your favorite activity during leisure time, what is your favorite activity during leisure time?**
    o Please describe to me how a typical day of your leisure time is?
    o What do you like about this activity?
        ▪ And why is that? Can you elaborate on this?
    o How long have you been engaging in the activity?
    o How often do you engage in this activity, let say in a month?
        ▪ And why is that? Can you elaborate on this?

Main Questions
[NATURAL RESOURCE PERCEPTIONS]
This section is about your perceptions of the outdoor environment.

- **I'm interested to know about your perceptions of the outdoor environment. What was the first thing that came to your mind when I said "outdoor environment"?**
        ▪ Why? Can you explain further?
    o How do you feel being in an outdoor environment?
        ▪ And why is that? Can you elaborate on this?
        ▪ Did this feeling change over time?
    o What kind of place would you consider to be an ideal place for conducting outdoor recreational activities?
        ▪ And why is that, any specific reason(s)? Please elaborate on this.
    o Is/Are there any things that you wish to avoid while being in the outdoor environment?
        ▪ And why is that? Can you elaborate on this?
    o If someone asks you about the benefits of being in the outdoor environment, what would you say?
        ▪ Can you explain further?

This section is about your experiences and opinions about outdoor recreation.

- **I would like to know what was the first thing that came to your mind when I said "outdoor recreation"?**
    - Why? Can you explain further?

Option A: Earlier, you said you have participated in outdoor recreational activities. What types of activities?

- Any particular reason why you like to participate in this type of activity?
    - Can you elaborate on this?
- I am interested in learning more about your outdoor recreational experience, can you describe to me what a typical day of outdoor recreation for you?
    - What were the best moments that you have experienced? Please elaborate on this.
    - What were the worst moments that you have experienced? Please elaborate on this.
- Can you recall the first time you participated in outdoor recreation activity?
    - When was it?
    - And where? Please explain why you choose this place?
    - Any recent participation? And why is that? Please elaborate on this.

Option B: Earlier you said you have never participated in any of outdoor recreational activities. Can you explain why you have not participated in any outdoor recreational activities?

- [*In case of receiving just a short answer* - What are your reasons for just not liking outdoor environments, or outdoor recreation, or physical activities in general?]
    - Can you explain why? Please elaborate on this.

- If anyone asks you about the importance of outdoor recreation, what will you say to them?
    - Are you saying this based on your personal experience?
        - Can you explain why? Please elaborate on this.
    - Is/Are any other examples that you would like to share?

<p align="center">[PERCIEVED CONSTRAINTS]</p>

This section is about things that prevent or constrain you from participating in outdoor recreation.

- **You mentioned some things that have made it difficult or prevent you from participating in outdoor recreation activities.**

   o   What are the things? Please provide examples.

   o   Please describe the situation in which you experienced these difficulties.

      ▪   Is this before or during your participation?

      ▪   And why is that? Can you elaborate on this?

   o   How did you feel at the time when you experienced these difficulties?

      ▪   And how did you react at that time?

      ▪   Can you elaborate on this?

   o   Do you consider these difficulties to be challenges or constraints?

      ▪   And why is that? Can you elaborate on this?

   o   What do you consider to be the biggest challenge that you have encountered while pursuing outdoor recreational activities?

      ▪   And why is that? Can you elaborate on this?

<p align="center">[NEGOTIATION STRATEGIES]</p>

This section is about any steps you took in preparing for and in reacting to constraints for you to be able to participate in your outdoor recreation activities.

- **What kind of preparations do you make before your engagement in outdoor recreation activities? Please walk me through your process.**

   o   What are the steps that you take before the event?

   o   What made you decide on taking these steps?

      ▪   Why? Can you explain further?

   o   What about during your outdoor recreation engagement, any specific actions or practices that you do?

      ▪   Why? Can you explain further?

- **You said you faced some difficulties during your outdoor recreation pursuits, can you describe the situations?**

   o   How did you react at that time? Please elaborate on this.

   o   What are the actions or practices that you took in which helps you to continue with the activities? Can you explain further?

This section is about the factors that could help you pursue outdoor recreation activities.

- **I am interested to know about the factors that you think helps you in your outdoor recreation pursuit. What are the things that help you to participate in your outdoor recreation activities?**

  o Please describe how and why it/they help/s you.

    ▪ Please give some specific example(s).

  o Are there any other suggestions that you think will help you further in outdoor recreational activities engagement?

    ▪ Please give some specific example(s).

  o If given a chance, what are the things that you want to improve that could assist you, in your outdoor recreation pursuit, in the future?

    ▪ And why is that? Can you elaborate on this?

    ▪ Please give some specific example(s).

[PERSONAL RECOMMENDATIONS]

This section is about the respondent's recommendations and suggestions to other PWDs about potential future outdoor recreation participation.

- **If someone (PWDs) asks you about participating in outdoor recreation, what advice will you give to them?**

    ▪ And why is that? Can you elaborate on this?

- **What advice would you give to someone (PWDs) who has a negative perception toward outdoor recreation activities?**

    ▪ Can you elaborate on this?

  o What about the advice for someone who has a negative perception toward outdoor environments?

    ▪ Can you elaborate on this?

- **Finally, is there anything else that you want to add or comment on with regard to your outdoor recreation experiences?**

Again, I would like to sincerely thank you for your valuable information and shared experiences and knowledge. I will contact you for further clarification and confirmation of data collected during this interview.

APPENDIX E: Interview Guide (Original version)

Name   : _____ **Pseudonym:** _____

Location : _____

Date   : _____ **Time**: _____

"Ice Breaker"

Greetings - Self-Introduction - Research Introduction - Consent Form - Participant Background Information **(refer to Interview Guide Checklist)**

Before we proceed**,** I would like you to share with me some information about yourself.

What is your favorite activity during leisure time? (you can pick any activity, indoor or outdoor)

 (a) How old were you the first time you engaged in the activity?

 (b) Is there any particular reason why you choose this as your favorite activity? [*try to find out why - is it because it is convenient or maybe it suits the ability, skills, needs, or interests of the respondent?]*

 (c) Can you share with me why is this activity meaningful to you?

Main Questions

[NATURAL RESOURCE PERCEPTIONS]
1. This section is about your perceptions of the **outdoor environment**.

 (a) What was the first thing that came to your mind when I said "outdoor environment?"

 (b) How do you feel being in an outdoor environment compared to being in your own house? Please elaborate on this.

 (c) In your opinion, what do you consider to be an ideal or preferred outdoor environment? (where you can pursue your outdoor recreational activities)

  • Why? Please elaborate on this.

  • [**If No**] You said that there is **NO** ideal/preferred outdoor environment for you, why? Please elaborate on this.

 (d) What are the things that you can gain by being in the outdoor environment? *(e.g., benefits)*

  • [**Nothing gained**] You said you gained nothing. Why? Please elaborate on this.

 (e) What are the things that you hope to do, experience, or benefit from while being in the outdoor environment?

 (f) What are the things that you wish to avoid while being in the outdoor environment?

[MEANINGS, EXPERIENCES, AND OPINIONS]

2. This section is about your **experiences and opinions** about **outdoor recreation**.

    But before I ask about your experiences, I would like to know what was the first thing that came to your mind when I said "outdoor recreation"?

[*respondent's understanding of outdoor recreation – will decide whether to explain in the context of this study: an activity that is closely linked to or dependent on the natural environment*]

- ▪ Why? Can you explain further?

Have you ever participated in any outdoor recreational activities?

[If Yes]

(a) What type(s) of activities?

(b) When was the first time you participated in your first outdoor recreation activity? And where?

(c) When was the last time you participated in your most recent outdoor recreation activity? And where?

[If Yes - but no recent participation] (*participate as a kid or last participate ≥ than 10 years ago*)

> ❖ Is/Are there any particular reason(s) why you have not participated recently in any outdoor recreational activities?
>
> - Why? Can you explain further?
> - [*If experiencing constraints*] Please describe to me the situation at that time.

(a) What is your favorite **outdoor activity**? [*refer to the context of this study*]

- Why? Can you explain further?

(b) Where is your favorite place to go (for your outdoor activity)?

- Why did you choose that place? Please elaborate on this.

(c) What motivates you to participate in outdoor recreational activities?

(d) Describe to me a typical day of outdoor recreation for you.

(e) How does it make you feel to be able to participate in outdoor recreational activities?

(f) What were the best moments that you have experienced in outdoor recreational activities?

- Why? Can you explain further?

(g) What were the worst moments that you have experienced in outdoor recreational activities?

- Why? Can you explain further?

(h) In your opinion, what benefits can YOU gain from participating in outdoor recreational activities?

- Can you justify your answer? For example, are there any positive changes that you experienced after your participation?

(i)   If SOMEONE ELSE (PWDs in general) asks you about the benefits of outdoor recreation, what will you say to him/her?

- [**If no benefit**] You said that there are no benefits from participating in outdoor recreation activities. Can you explain why? Please elaborate on this.

[If No]

(a)   Please explain why you have not participated in any outdoor recreational activities.

- Is/Are there any particular reason(s)?

- Can you explain further?

- [*In case of receiving just a short answer* - Do you have anything against outdoor (recreation or environment) or physical activities?]

[PERCIEVED CONSTRAINTS]

3.   This section is about things that prevent or constrain you from participating in outdoor recreation.

Questions to participants **WITH** experiences in outdoor recreation:

o   You mentioned some things that have made it difficult or prevent you from participating in outdoor recreation activities.

    o   What are these things? Please provide examples.

    o   What are the difficulties that you have encountered during the planning phase (**before)** for your participation in outdoor recreation?

        o   Please describe the situation in which you experienced theses constraints.

    - What are the difficulties that you have encountered **during** your participation in outdoor recreation?

        o   Please describe the situation in which you experienced these constraints.

o   How did you feel at the time when you experienced those difficulties?

o   How did you react at that time?

o   What do you consider to be the biggest challenge that you have encountered while pursuing outdoor recreational activities?

Questions to participant **WITHOUT** experiences in outdoor recreation:

(a)   You explained earlier your reason(s) for not participating in any outdoor recreational activities.

- Is/Are this/ese the only reason(s) why you are not participating in outdoor recreational activities? If others, what are they?

- Please describe the situation in which you experienced the constraints.

(b)   You said that you have tried to engage in outdoor recreation but have been unsuccessful. In what phase did you encounter the biggest challenge in your attempt? Was it before, during, or after the planning phase?

- Can you elaborate on this?

- How do you feel when you experience these constraints?

- How do you react at that time?

(c)   What do you consider to be the biggest challenge or reason that might hinder you from pursuing outdoor recreational activities?

[NEGOTIATION STRATEGIES]

4. This section is about any steps you took in reacting to constraints for you to be able to participate in your outdoor recreation activities.

Questions to participant **WITH** experiences in outdoor recreation:

(a)   What kind of preparations do you make **before** the events that enable you to participate with your outdoor recreational activities?

- What are the steps that you take? Can you walk me through your process?

(b)   What kind of actions do you take **during** the events that enable you to continue pursuing your outdoor recreation activities?

- Can you walk me through your process?

(c)   Have you ever failed to participate in any outdoor recreation activities when you had wanted/intended to participate? (despite all the efforts)

- What are the reasons behind it?

- How did you feel at that time? Please describe the situation.

- Please describe the preparations that you, at that time, before the event.

- Please describe the actions that you took, at that time, during the event.

- How did you react after the failure? What did you do next?

- Thinking about it now, what are things that you think you can or should do that might help change the outcome for participating in outdoor recreation in the future?

Questions to participant **WITHOUT** experiences in outdoor recreation:

(a)   Have you ever tried to participate in any outdoor recreational activities?

- Why? What things did you consider in deciding whether to try or not to try to pursue any outdoor recreation activity?

- If you decide to try in the future to participate in outdoor recreation, what kind of measures or strategies would you use **before** your participation in outdoor recreational activities (in your planning phase)?

- Can you walk me through the process?

(b)   You said you were hindered by some difficulties that made you decide to withdraw from pursuing your outdoor recreational activity. Have you ever tried to overcome or evading those challenges/constraints?

- [*If Yes*] Please describe the steps that you made, at that time, **before** the outdoor recreation experience?
- [*If Yes*] Please describe the steps that you made, at that time, **during** the outdoor recreation experience?
- [*If No*] Why? Please elaborate on this.

(c)　Would you like to pursue any outdoor recreation activities in the future?

[*If Yes*]

- In your opinion, what are the possible things that you could do to overcome these potential challenges or constraints?
- What are the things that outdoor recreation providers could do to help reduce or overcome these challenges or constraints?
- What are the things that communities could do to help reduce or overcome these challenges or constraints?

[*If No*]

- Why? Is/Are there any particular reason(s)?
- Please elaborate on this.

[FACILITATORS]

5.　This section is about the factors that could help you pursue outdoor recreation activities.

Questions to participant **WITH** experiences in outdoor recreation:

(a)　What factors help you **before** your involvement in outdoor recreation activities?

- Please give specific example(s), and describe how and why it/they help/s you.

(b)　What factors help you **during** your involvement in outdoor recreational activities?

- Please give specific example(s), and describe how and why it/they help/s you.

(c)　Are there any other factors that you think help you or have made it possible for you to participate in outdoor recreational activities **in the past**?

(d)　Describe the factors that you think will aid you in pursuing outdoor recreational activities **in the future**.

Questions to participant **WITHOUT** experiences in outdoor recreation:

(a)　In your opinion, what are the things that are lacking (personally) that keep you from participating in outdoor recreational activities?

(b)　What are the things that are lacking from outdoor recreation providers that keep you from participating in outdoor recreational activities?

(c)　What are the things that are lacking in communities that keep you from participating in outdoor recreational activities?

(d)   If given a chance, what are the things that you want to improve that could aid you in pursuing outdoor recreational activities?

(e)   Any other suggestions that you think will help you in pursuing outdoor recreational activities?

If there is no mention of any regulations or acts, follow through with these questions:

(a)   Do you know of or did you ever come across any law or act regarding PWDs and outdoor recreation activities?

(b)   Did any of these laws or acts (in one way or another) help you or enable you to participate in your chosen outdoor recreation activities? Please elaborate on this.

(c)   Do you know of any existing law or act that you think could facilitate you in pursuing outdoor recreational activities? Please elaborate on this.

[PERSONAL RECOMMENDATIONS]

6. This section is about the respondent's recommendations and suggestions to other PWDs about potential future outdoor recreation participation.

(a)   If someone (PWDs) asks you about participating in outdoor recreation, what advice will you give to him/her?

(b)   If someone asks you to describe an outdoor or natural environment, how would you describe it?

(c)   What advice would you give to someone (PWDs) who has a negative perception toward outdoor recreation activities?

(d)   What advice would you give to someone (PWDs) who has a negative perception toward outdoor environments?

Finally,

7. Anything else that you want to add or comment on with regard to your outdoor recreation experiences?

Again, I would like to sincerely thank you for your valuable information and shared experiences and knowledge. I will contact you for further clarification and confirmation of data collected during this interview.

APPENDIX F: Coding Scheme

Table 6: Coding scheme

Intrapersonal Constraints			
Definition: Individuals' psychological states, characteristics, traits, and beliefs that affect the formation of leisure preferences and inhibit participation.			
Rule: Apply to a passage that indicates challenges derived within self/mind of the person that affect the formation of leisure preferences / inhibit participation.			
Theme	**Definition**	**Rule of applying**	**Examples (from text)**
Perceived discrimination	Individual's perception of an attitude, judgement, or evaluation of unjust or prejudicial treatment from others.	Apply to passage when interviewees indicate concern or dissatisfaction over any potential or alleged unfair treatment due to negative stereotype, or evidence of stigma and lack of awareness toward PWDs.	The feeling is more like I'm being looked down rather than me feeling inferior. Not that I don't think I can do it, but it is more of our abilities being underestimated by others!
Fear	Individual's fearful emotional feelings and beliefs caused by actual or perceived danger or threat.	Apply to any passage that indicates worry, concern, or terror related to situation or condition that is deemed unsafe or has the possibility of incurring injuries during outdoor recreation (OR) participation.	For hiking, the amputees will probably go and participate but definitely not for me. My disability has resulted in me having fear of walking up the stairs or hiking. So, without a helper, I will not go to steep terrain even if it has a proper path or pavement.
Physical limitation of PWDs	Individual's beliefs of his/her inability to perform OR activity due to his/her disability or lack of ability.	Apply to the text that indicates the person's belief or perception of obstructions, resistance, or non-participation due to the individual's restricted physical ability.	Like me, I really don't have this waist strength. If you push me I will fall down. So, if there are high steps I cannot go up with my wheelchair. …This is why I believe I cannot do so much OR activities since my condition is like that.
Poor health conditions	Individual's beliefs about his/her poor level of illness.	Apply to passage that indicate individual's non-participation or concern toward active OR participation due to poor health status or perceived poor health conditions.	I never do any physically demanding or extreme OR activities. This is because of my health condition; I cannot do any physically demanding stuff
Lack of Motivation	Individual's lack of will to participate in OR activities.	Apply to a passage when interviewee indicate lack of enthusiasm and desire to participate in OR activities or has disfavor toward OR activities.	I personally do not really like OR activities. …if it is just for the sake of the activities, I won't probably join it. I can say that I am not an outdoorsy kind of girl.
Perceived difficulties	Individual's beliefs, judgement, or evaluation that they will have to face hardships or challenges to be able to participate.	Apply to passage when interviewee indicate the reason for non-participation is to avoid struggle, when they foresee difficulties, or they choose comfort over physically or emotionally demanding OR activities.	My ideal type of activities is to be able to enjoy the activities and it is relaxing. But when you do OR activities, it often is quite challenging… even with activities like strolling in the park. Because you need to hurdle all sorts of obstacles.
Perceived burden to others	Individual's perception of an attitude, judgement, or evaluation of being a burden to others.	Apply to passage when interviewee indicate any discomfort/guilty feeling when seeking/receiving help from others, or a situation in which the interviewee sees themselves as being a burden to others.	But if possible, I don't want to trouble other people. We don't expect people to provide everything for us.

Table 6 (cont'd)

Interpersonal Constraints			
Definition: Associated with social interactions among people or the absence of a partner with whom to interact that affect the formation of leisure preferences and inhibit participation.			
Rule: Apply to a passage that indicates challenges/obstacles associated with or without social interaction among people that affect the formation of leisure preferences and inhibit participation.			
Theme	**Definition**	**Rule of applying**	**Examples (from text)**
Public Negative Attitude	Refers to public's negative behavior or actions toward public properties, facilities, or services.	Apply to text that indicate any public non-cooperative or inconsiderate behavior, and improper use or act of vandalism toward public properties and facilities.	I know we still have public out there who still lack awareness about PWDs like us. This can be seen with the lack of courtesy with accessible facilities that meant for PWDs. They park their motorcycle on Braille track or the hawker stall on the sidewalks. All these are potential risks for us.
Lack of social support	Refers to the individual having inadequate or no assistance or care; or feeling that they are not part of a supportive social network.	Apply to a passage when interviewee indicates he/she did not receive any or enough support, assistance, or help from friends, family, or other people in the society, or having an unsupportive or overprotective parent.	Previously, I did have experiences, with my normal friends… being denied the opportunity to join their hiking activities. They feared for my safety and did not want to take any risks.
Lack support from authorities	Refers to the state when the individual did not receive or did not have adequate care, assistance, or service from the management or other authorities.	Apply to a passage when interviewees indicate not receiving adequate support, assistance, facilitation, or services from any service provider, park management, or authorities in general; or experiencing avoidance or rejection of services.	There are programs out there, but just for the general public. When you contact them, they for sure will say that it is open for all... and that they don't provide a guide or any assistance. So, everything we need to arrange by ourselves.
Discrimination	Any unjust or prejudicial treatment by others as reported by the PWDs.	Apply to a passage that indicate unfair treatment or any actions that show PWDs' being stigmatized by individuals or institutions that deprived their rights for OR participation.	… they will stop providing the service right away. I got this experience where I go to the dive center, and when they saw me with my white cane, they straight away stopped me…saying that I cannot dive!
Family obligations	Duty or obligation PWDs have towards any family member.	Apply to data that indicate interviewees have limited participation or non-participation due to the need to provide support, assistance, or care to any family member.	I used to be quite active when I was young… until I got married. Since I have kids, I am not active anymore, in terms of OR activities. However, I still have the interest to do so! But now, I need to take care of my kids, three of them! So, it is quite difficult for me now.

Table 6 (cont'd)

Structural Constraints			
Definition: Related to the structural barriers or operational/physical factors that indicate a lack of facilities, amenities, and other support systems that affect the formation of leisure preferences and inhibit participation.			
Rule: Apply to a passage that indicates challenges/obstacles associated with structural barriers or lack of infrastructure and/or support systems, which operate external to the individual, that affect the formation of leisure preferences and inhibit participation.			
Theme	**Definition**	**Rule of applying**	**Examples (from text)**
Lack of Facilities	The state where facilities cannot be used or accessed by the PWDs.	Apply to the passage when interviewee indicates inadequate basic or accessible facilities, malfunctions of facilities, lack of safety elements, or facilities not suitable or inaccessible by PWDs due to its "non-inclusive" design.	Because of all the constraints, having no proper access [to the park] …it makes it harder for me to go to the parks. It makes you not want to go out because of that. It is like a setback, even though you feel like you want to go out, but due to all the constraints, it makes you decide otherwise.
Structural Barriers	Refers to physical or environmental obstacles that limit or inhibit PWDs' access or movement.	Apply to text when interviewee indicates not being able to participate, or are unable to access public areas due to existing structural barriers, crowded places, or challenging environments.	For example, in Malaysia, if I want to go camping, I must endure the uneven pavement, potholes, and even off-road tracks.
Lack of programmatic opportunities	Inability to participate in OR activities due to limited or no availability of activities or services.	Apply to text when interviewee indicates not having enough inclusive OR opportunities or when the activities are not offered or made available for PWDs.	Actually, I want to do skydiving, but I don't know where I can do it [here in Malaysia].
Transportation challenges	Having no access to or means of transportation or limited transportation services to OR environments.	Apply to a passage when the interviewee indicates having difficulties with transportation services, or having difficulties in participating in OR activities due to lack of transportation to OR places.	If you ask me in general, LRT, MRT, Monorail, and these sorts of transportation, they can only reach certain distance only, they won't take you to your destination. So, it will be hard for you to go to certain place only by using this public transportation.
Lack of information	No information available or information not readily accessible or not available in accessible format.	Apply to a passage when interviewee indicates not having any information or have difficulties in accessing information related to OR activities/opportunities.	This is because if the information does not reach the specific audience (PWDs), there won't be any activity [in which] to participate.
Financial Constraints	Inability to participate in OR activities due to financial factors.	Apply to data that indicates constraints to OR participation due to limited of financial resources, social-economic status, or the cost of activities beyond financial means.	Sometime my financial situation and the time of the activity did not permit me to participate in the activities.
Time Constraints	Inability to participate in OR activities due to time factors.	Apply to data that indicates non-participation due to difficulties with the timing of activities or the PWDs having time limitations.	If the activity is conducted during weekdays and I don't have any leave day, I can't join the program.

Table 6 (cont'd)

Intrapersonal Facilitators
Definition: Individuals' psychological states, characteristics, traits, and belief that enable/promote the formation of participation.
Rule: Apply to text that shows the psychological states of the interviewee, toward or during the participation, that leads to or encourages participation.
Theme	**Definition**	**Rule of applying**	**Example (from text)**
Perceived benefits	The perception of the positive consequences resulting from participating in OR activities.	Apply to passage when interviewees expect or indicate rewarding, positive, or beneficial experiences from the OR participation.	I consider it as something rewarding to me, because when you go out to the park, and it has beautiful scenery, we look at it and we appreciate it. It is like a reward or benefit that you get by participate in the activity.
Self-efficacy	Individual's belief in his/her ability to succeed in completing tasks or reaching goals	Apply to passage that indicates sense of confidence in own ability when sees others success or when the interviewee indicates obstacles as challenges or tasks to be mastered.	I considered the obstacles that I faced for me to reach the picnic area as an adventurous and challenging experience. I want to challenge myself, "if other people can do it, why I can't?
Self-advocacy	Action of representing oneself to make OR participation possible	Apply to the text when the interviewees persuade, or seek help from others, or stand up for their rights/entitlement for OR services	I persuade my friends to let me join them in the hiking expedition until they became 'positive' and finally relented.
Be ready for challenges	Action or steps, to be made ready, **before** engaging in OR activities	Apply to passage when interviewees indicate seeking information about the places, organizing or taking precautions before OR participation, or anticipating the situation with regard to their OR participation.	Like for the preparation for the activities, I will follow the itineraries. I will prepare the clothing or gear according to the activities or places to go. I will discuss the itineraries with my friends who planned the trip.
Past experience	Knowledge or skills gathered throughout one's life	Apply to passage when interviewees indicate activities, events, training, or experiences that they have undergone, or skills that have acquired previously.	I was born and raised in a village, so I am used to being adventurous. …I am used to extreme activities like catching fishes or play in the outdoors.

Table 6 (cont'd)

Interpersonal Facilitators			
Definition: Individuals/groups affiliations or social interactions that enable/promote the formation of participation.			
Rule: Apply to text that shows the current conditions arise out of social interaction or affiliations that leads to or encourages participation.			
Theme	**Definition**	**Rule of applying**	**Example (from text)**
Social support networks	Having care and assistance from other people	Apply to text when interviewees indicate having the care, assistance, or influence from family, friends, and public in general that help promote OR participation, or the feeling that they are part of a supportive social network.	…before I go out, my family will usually go and check the place for me first. They will then discuss with me whether the place is suitable for me or not. They will do this as it can help lessen the chance of me being disappointed.
Positive social interactions	Positive interaction or involvement as a member in society	Apply to a passage when interviewees indicate being an active member of the society, socializing with other people, or when interviewees indicate the public behaving in a proper way or showing positive attitude toward PWDs.	For me, for outdoor recreational activities, I prefer to do it with friends. Friends who share the same condition as me or friends who knows me inside out.
Support from authorities	Having training, assistance, or services from the authorities or experts	Apply to passage when interviewees indicate having training, assistance, or services provided by the government, local operator, organization, professionals, or volunteers that support the formation of OR participation.	Usually programs organized by associations, they will provide all the necessities. They will cater to all the things that PWDs need, including the guide!

Table 6 (cont'd)

Structural Facilitators			
Definition: Related to the operational or physical factors that operate externally to the individual, that lead to participation.			
Rule: Apply to text that shows the existing social/physical institutions, or belief systems of a society that leads to or encourages participation.			
Theme	**Definition**	**Rule of applying**	**Example (from text)**
Availability of accessibility	The existent of accessible facilities, ease of access, and usability of a place or built structure	Apply to passage that indicates the ability to access or use facilities, or when interviewees reported they are able to access a public area due to the existence of universal design and accessible features.	The park that I frequently visit is Titiwangsa Lake Garden. It is because it is near to my house. The place is accessible and have an accessible toilet.
Supportive technology/ tools	The opportuneness or practicality of any tool, technology, or product that is used to help improve PWDs opportunities	Apply to passage that indicates the availability of tools or technology used by the PWDs to improve their functional capabilities, or when interviewees indicate being able to accomplish certain task with the help of adaptive equipment or technologies.	I don't have the confidence to push myself that far. That is why I bought the motor as an adaptive technology. Other than by upgrading my wheelchair with the motor, other things that I will consider as helpful.
Availability of opportunities	The availability of inclusive OR services and activities.	Apply to text when interviewees indicate OR activities and services were made available for them, or a favorable situation provided in which the interviewees were being introduced or invited to participate to programs/activities.	Usually programs organized by associations, they will provide all the necessities. They will cater to all the things that PWDs need, including the guide! So, with this well-organized program, it will hopefully be able to attract those beginner PWDs to participate because everything has been made easy for them.
Accessibility of information	Having access to information, or gaining knowledge	Apply to text when interviewees indicate that they gained or received knowledge/facts related to OR through the act of learning, researching, or communicating.	I must first know the condition of the place. If I have never been to that place, I will need to at least be able to picture it first, the surrounding environment. I also will find information about the facilities …All these to avoid any chaos during the actual day.
Convenient accessible transportation	Having the access to transportation or transport facilities	Apply to the passage when interviewees indicate having access to means of transportation services or the availability of inclusive facilities and services related to transportation that helps traveling become easier and feasible	Transport wise, I have no problem. I often use the LRT (Light Rapid Transit). I like to travel and do sightseeing. …After we arrived in the town, we can take a taxi.
Financial ability or support	Financial resources or receiving financial assistance from others	Apply to text when interviewees indicate receiving some kind of monetary assistance from others, or the interviewee's ability to spend money for OR purposes.	They told us that they had invested thousands of ringgit (Malaysian currency), with all the sponsored equipment just to prepare us for the expedition.

Table 6 (cont'd)

Cognitive Negotiation Strategy			
Definition: Involves changes in an individual's mind, such as ignoring issues and de-emphasizing a preferred leisure activity. **Rules:** Apply to the data that indicates interviewee changed or modified leisure aspirations or modify their outdoor recreation participation/expectations to proceed with their pursuits			
Theme	**Definition**	**Rule of applying**	**Example (from text)**
De-emphasize challenges	Comprehend the unfavorable issues but continue to dismiss or downplay it.	Apply to a passage that indicates interviewee downplay, or disregard the obstacles, or accepting and facing up the unfavorable conditions willingly while continues to proceed with OR participation.	I did not do any survey because we already know what to expect for places like this recreational forest, we knew that it is not accessible friendly right? So, what I will did is to be mental prepared! Since I already know what to expect, what I did is to make sure that I will be able to adjust according to the situation. I will do what it takes in order for me to overcome or adjust any of the shortcomings or challenges.
Accepting and cope with the challenges	Choose to cope with the unfavorable and unsatisfactory situation [having no other choice but to accept the unpleasant but inevitable situation]	Apply to the passage when the interviewees have to accept and endure with the unfavorable environment or unlikely circumstances, or expressing dissatisfaction about the facilities or experiences but still proceed with the activities.	To be honest, I don't really like this park, in term of the facilities I don't think this park has good accessible facilities. Actually, I don't have any other choice. The thing is that not many parks have the facilities that I can use or is accessible. You see, not many public places provide facilities that are truly accessible to people with disabilities.

Table 6 (cont'd)

Behavior Negotiation Strategy			
Definition: Involves observable changes the PWDs make before or during their outdoor recreation participation. **Rules**: Apply to the data that indicates interviewees sought/used alternative action and modifying non-leisure aspects to enable leisure participation.			
Theme	**Definition**	**Rule of applying**	**Example (from text)**
Take preemptive action	Preemptive measure taken to deter or avoid anticipated difficulties and uphold expected challenges [happened before the event]	Apply to text that interviewees indicate making preparations, research, acquiring new skills, or taking initiative or countermeasure to ensure successful OR participation.	For blind people, the walking stick is like a symbol to let people know that we are blind. Without the stick, if we bump onto other people while jogging with our guide, people will be mad at us. People will say, "hey, can't you see?" and if I said no, people would suggest to me to bring along my walking stick.
Find alternative action	Responding to the current challenging situation by choosing or doing something different than the original plan. [happened during the event/at that moment]	Apply to a passage that indicates respondent's reaction to the current situation, in which they choose other available or possible options, adjusting to the situations, or seeking alternate options.	If things like this happen in a recreational park [motorcycles parked and blocking the entrance to the recreational park], …I will park my vehicle and go find another entrance
Seek social support	Involves interviewees requesting assistance or seeking support from others	Apply to passage that indicates interviewee trying to persuade others for accessible services, speaking up or taking action on one's own behalf, or requesting support from others.	I told them, 'it is okay" because I wanted to try. I tried convincing them until they became positive and finally relented
Modify activities	Making adjustment or adaptation to the activities or assistive techniques, tools, or other sensory approaches during their participation	Apply to text when interviewees indicate making adjustments to the activities to ensure it is accessible and suitable for the PWDs or using assistive technique, tools, technologies, or other sensory approaches.	Like if riding a bicycle, you need people to help you. But sometimes I also ride the tandem bike, the bicycle for two people. With this tandem bike, the person in front must be either a non-visually impaired person or someone having better vision then me (low level visual impairment). The person in front will take the lead to steer the bike.

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