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Coláiste na hOllscoile Corcaigh

Exploring the accessibility of leisure facilities in Munster for people with physical disabilities.

Bríd Hannon

CARL Research Project

Name of student(s):	Bríd Hannon
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Name and year of course:	Occupational Therapy, Year 4
Date completed:	9th May 2014

What is Community-Academic Research Links?

Community Academic Research Links (CARL) is a service provided by research institutes for the Civil Society Organisations (CSOs) in their region which can be grass roots groups, single issue temporary groups, but also well structured organisations. Research for the CSOs is carried out free of financial cost as much as possible.

CARL seek to:

- provide civil society with knowledge and skills through research and education;
- provide their services on an affordable basis;
- promote and support public access to and influence on science and technology;
- create equitable and supportive partnerships with civil society organisations;
- enhance understanding among policymakers and education and research institutions of the research and education needs of civil society, and
- enhance the transferrable skills and knowledge of students, community representatives and researchers (www.livingknowledge.org).

What is a CSO?

We define CSOs as groups who are non-governmental, non-profit, not representing commercial interests, and/or pursuing a common purpose in the public interest. These groups include: trade unions, NGOs, professional associations, charities, grass-roots organisations, organisations that involve citizens in local and municipal life, churches and religious committees, and so on.

Why is this report on the web?

The research agreement between the CSO, student and CARL/University states that the results of the study must be made public. We are committed to the public and free dissemination of research results.

How do I reference this report?

Hannon, B. (2014) Exploring the accessibility of leisure facilities in Munster for people with physical disabilities, [online], School of Occupational Science and Occupational Therapy, Community-Academic Research Links/University College Cork, Available from: http://www.ucc.ie/en/scishop/completed/ [Accessed on: date].

How can I find out more about the Community-Academic Research Links and the Living Knowledge Network?

The UCC CARL website has further information on the background and operation of the Community-Academic Research Links at University College Cork, Ireland. http://carl.ucc.ie

CARL is part of an international network of Science Shops. You can read more about this vibrant community and its activities on this website: http://www.scienceshops.org

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Exploring the accessibility of leisure facilities in Munster for people with physical disabilities.

Department of Occupational Science and Occupational Therapy, University College Cork.

Abstract

There are numerous benefits associated with physical exercise for people with physical disabilities. However they remain a largely inactive group. The purpose of this study was to identify various physical, attitudinal and policy based barriers and facilitators associated with engagement in physical activity for people with physical disabilities within the setting of leisure and fitness facilities in the Munster region.

A quantitative cross-sectional descriptive study was conducted using online questionnaires. The questionnaire examined facilities physical access, ascertained what equipment and policies the centre had and leisure and fitness professionals attitudes and training in relation to people with physical disabilities.

Data were collected from thirty leisure and fitness professionals. The majority of facilities in the study had accessible features pertaining to parking areas, changing rooms and showers. Most facilities did not have automatic entrance doors and had limited availability of dual-use exercise equipment. The majority of facilities do not charge personal assistants. A minority of respondents reported that guide dogs were not permitted on the premises. Lack of specific training in disability awareness was also identified as a common barrier. In addition very few facilities included people with disabilities as a target-market group.

Findings from this preliminary study provide future directions for further research into the accessibility of Irish leisure and fitness facilities. Through a combined individualised and population approach, Occupational Therapists have a significant role in advocating for equal access to facilities, and for the enablement of people to engage in meaningful occupations that contribute positively to health and well-being.

Key Words: Accessibility, Leisure and Fitness Facilities, Barriers to Participation.

Word Count: 6027

Introduction

Occupational justice sets out the right for all persons to equally participate in occupations which are meaningful to them (Townsend & Wilcock, 2004). Thus occupational injustice can be described as occurring when participation in occupations is confined, restricted, underdeveloped, excluded or otherwise restricted (Kronenberg & Pollard, 2005). Occupation refers to the everyday activities that people do to occupy time, and bring meaning and purpose to life (The World Federation of Occupational Therapists (WFOT), 2006). In recent years, leisure and fitness facilities have become popular environments in which adults engage in leisure occupations. If an individual views accessing and using a leisure facility as meaningful and as something he/she wants to do then they have the right to engage in that occupation. Abuse of the right to occupation may take the form of "economic, social or physical exclusion, through attitudinal or physical barriers, or through control of access to necessary knowledge, skills, resources or venues where occupation takes place" (WFOT, 2006, p. 1). This suggests that occupational injustice can be considered an outcome of barriers that determine who can access and participate in physical-activity within a leisure centre environment.

Adults with physical disabilities experience restricted participation, social isolation and engage in more passive activities (Blake, 1995; Dunn, 1990). There are significant positive associations between participation in physical activities and physical health and psychological well-being, but despite these benefits people with disabilities remain one of the most physically inactive groups in society (Sá, Azevedo, Martins, Machado & Tavares, 2012; Rimmer, Riley, Wang, Rauworth & Jurkowski, 2004; Calder & Mulligan, 2013). Insufficient physical-activity has been identified as a major factor in the deteriorating health of people with disabilities (Coyle & Santiago, 1995). Rimmer, Rubin, Braddock, & Hedman (1999) found a link between physical inactivity and the increase in the severity of disability and erosion of involvement in community activities. In addition Rimmer et al. (1999) found that people with disabilities report a high number of secondary conditions, which in most cases are considered preventable. Furthermore as people age, years of sedentary living is compounded by the natural aging process resulting in further decline in health and physical fitness (Rimmer, Riley, Wang & Rauworth, 2005). Regular involvement in physical-activity is important for various types of physical disabilities such as amputations, spinal cord injury, and people who have had joint replacements (Cardinal & Spaziani, 2003).

Occupational therapists (OTs) are interested in health, well-being, and justice for everybody (Townsend & Polatajko, 2007), and have a significant role to play in addressing the large disparity in physical-activity participation observed between people with and without disabilities. According to the WFOT (2006) OTs have the expertise required to support individuals who experience barriers or limitation to occupational engagement. OTs can contribute leadership to the development, coordination and management of combined population and individualised approaches to inclusion of people with physical disabilities. Universal design is fundamental to inclusion, as it aims to achieve good design so that "people can access, use and understand the environment to the greatest extent and in the most independent and natural manner possible, without the need for adaptations or specialised solutions" (Centre for Excellence in Universal Design, 2012, p. 5). This approach which provides for the broadest range of users, can result in buildings and places that can be used and enjoyed by everyone.

The Irish 2011 Census recorded a total of 595,335 people who have a disability, which accounts for 13% of the total population (Central Statistics Office (CSO), 2012). Almost 6 out of 10 (58.8%) of those with a physical disability reported having difficulty participating in leisure and other activities (CSO, 2012). The proportion of the population in older age groups is rising, and the incidence of disability rises with age (CSO, 2012). Therefore it is essential that facilities provide accessible environments that enable physical-activity among this growing population group.

Central to conducting research in the field of occupational therapy and engagement in physical-activities in leisure centres is a clarification of important terms. Leisure and fitness centres are defined as "establishments primarily engaged in operating fitness and recreational sport facilities featuring exercise and other active physical fitness conditioning or recreational sports activities", but will be referred to herein as facilities (US Census Bureau, 2013, p.1). Accessible has been defined as “approachable, functional and usable by persons with disabilities, independently, safely and with dignity” (Goldman as cited in Riley, Rimmer, Wang & Schiller, 2008, p. 159).

Literature Review

Physical-activity is of particular importance for people with disabilities as it can reduce the incidence of chronic diseases such as type II diabetes, obesity and heart disease, and has been shown to improve secondary conditions associated with various disabilities such as weakness, fatigue, reduced mobility, joint stiffness, and depression (Santiago & Coyle, 2004; Rimmer et al., 2004; Fentem, 1994). For

people who have acquired a disability, participation in physical-activity can help them come to terms with their disability, regain self-esteem and social integration (Chawla, 1994). Post-injury sport participation for people with spinal cord injury has been shown to help reduce clinical depression, decrease rehospitalisation, improve family and social interaction and prolong life expectancy (Wu & Williams, 2000). Physical-exercise has also been proved to be beneficial in maintaining higher levels of independence in performing activities of daily living (Seaman, 1999; Fentem, 1994). However the pleasure and fun derived from physical-activity and sport can be sufficient reasons alone for participation. Athletes with spinal cord injuries gave "fun" as the number one reason for engaging in sport, followed by "fitness", "health", "competition" and "social", while they rated "rehabilitation" lowest (Wu & William, 2000). There are many benefits derived from participating in physical-activity including the improvement of the physical condition, enjoyment and promotion of a sense of well-being.

The design of built-environments, especially of public places, is a critical factor in facilitating participation (Hitch, Larkin, Watchorn & Ang, 2012). The Disability Act 2005 provides a statutory basis for accessible public services. Sections 26, 27 and 28 of the Act place obligations on public bodies to make their services and information accessible to people with disabilities. The National Disability Authority (NDA) provides policy advice to Government and public bodies, engages in disability research, advises on standards and guidelines in services to people with disabilities and promotes awareness of Universal Design (NDA, 2014). The NDA conducted a national survey of public attitudes to disability in Ireland, in which 28% of respondents with disabilities identified the physical environment as a barrier to participation to age appropriate life activities compared to just 2% of their non-disabled peers (NDA, 2011). Entrances to facilities were the most accessible feature identified by the studies reviewed (Sá et al., 2012; Cardinal & Spaziani, 2003; Nary, Froehlich & White, 2000). While lack of curb cuts, inaccessible access routes, reception desk being too high, lack of elevators, poor accessibility to and around exercise equipment, and changing rooms tend to be reported as major barriers to accessibility (Elsworth et al., 2009; Rimmer et al., 2004; Cardinal & Spaziani, 2003). It is important to note that none of the studies reviewed found a facility that was 100% compliant with the Americans with Disabilities Act. Consequently the lack of structural accessibility imposes a significant barrier to participation among people with disabilities.

Equipment related barriers were identified in Rimmer et al.'s study (2004), including lack of adaptive or accessible equipment, inadequate space between equipment, and poor equipment maintenance. This is supported by Rimmer et al. (2005) who found that most of the facilities assessed were unlikely to have adaptive exercise equipment. These findings highlight the fact that equipment in leisure facilities need to be usable by people with disabilities. People with disabilities identified lack of awareness of a fitness centre in their area (57%) and no knowledge of how to exercise (46%) as further barriers to access (Rimmer, Wang & Smith, 2008). Rimmer, Rubin and Braddock (2000) also identified a lack of understanding on the importance of exercising as a barrier. These studies highlight the fact that lack of marketing and promotion of the benefits of exercises can hinder participation.

In the NDA's survey 26% of disabled people also highlighted people's attitudes as a barrier to participation in age appropriate activities, compared to just 3% of non-disabled people (NDA, 2011). Consumers felt that fitness professionals were not sensitive to their needs (Rimmer et al., 2004). These views are supported by Rimmer et al. (2005) who observed staff members on several occasions to talk directly to the personal assistant rather than to the disabled person, and felt that staff appeared uncomfortable or impatient when helping service users.

These studies show that access to facilities by people with disabilities is a complex and multifaceted issue. There are numerous benefits associated with physical-exercise for people with physical disabilities, yet they remain a largely inactive population group. This may be due to the fact that there are many structural, financial, and attitudinal barriers that limit full participation of people with disabilities in facilities. Lack of marketing and health promotion may also be a contributing factor. No research was identified on the accessibility of Irish facilities. This study aims to answer the question: How are people with physical disabilities being facilitated within the setting of facilities in Munster? The purpose of this study was to identify the current accessibility of facilities in the Munster region in order to identify barriers and facilitators to participation in physical-activity for people with physical disabilities. Specifically this study aims to:

- establish the general physical accessibility of facilities in the Munster region in relation to the external environment and entrance, internal environment and amenities.

-gain a better understanding of the policies Munster facilities have in place regarding accessibility for people with disabilities.

- gain a better understanding of the training, attitudes and opinions of leisure and fitness professionals in relation to people with disabilities.

This study is supported by the Cork Sports Partnership (CSP), which is funded by The Irish Sports Council to promote participation in sport at a local level especially amongst specific target groups such as older people, girls and women, people with disabilities, unemployed people, and those who live in identified disadvantaged communities. In order to carry out their work the CSP needs to gain a better understanding of how accessible facilities are in the Munster region. Community & Academic Research Links (CARL) is a University College Cork initiative that unites students with organisations who are looking for a 3rd level student to explore a topic on their behalf (See Appendix A). It was through CARL that the researcher was introduced to the CSP.

Research Design

This was a quantitative level IV cross-sectional non-experimental descriptive study. Cross-sectional surveys are used to determine the prevalence of a phenomenon, situation, problem, attitude or issue, by taking a cross-section of the population at a given time (Kumar, 2011). Thus this study is suited to ascertain the current physical environment of facilities, get a snapshot of the policies in place regarding accessibility of people with disabilities and gain an understanding of attitudes of professionals working in facilities. Approval was granted by the Clinical Research Ethics Committee of the Cork Teaching Hospitals, University College Cork, Ireland (Appendix B).

Data Collection

Data was collected via an online questionnaire, which was developed by the researcher in conjunction with the Sports Inclusion Development Officer from the CSP. The questionnaire was composed in line with terminology used by previous researchers in the field, including the Accessibility Instruments Measuring Fitness and Recreation Environments (AIMFREE) and the questionnaire used in the national survey of public attitudes to disability in Ireland conducted by the NDA in 2011. The AIMFREE has been used in research studies in the USA, Canada and Singapore to determine accessibility and usability of fitness and recreational facilities (Calder & Mulligan, 2013). Using existing questions is encouraged as they have been tried and tested (Bryman, 2004). A pilot study of 5 subjects was conducted and the questionnaire was then altered based on the feedback. Based on the pilot study completion time for the online survey was estimated at approximately 15 minutes. The final

questionnaire consisted of 65 closed-questions, five likert scale and four open-questions. Open-questions were included as they allowed participants the opportunity to express their opinions freely, resulting in a greater variety of information (Kumar, 2011). The questionnaire examined areas of facilities to which users would expect to access including exterior environment and entrance, exercise equipment, changing rooms, showers, swimming pool, as well as marketing, professional training, policies, attitudes and demographics (See Appendix C).

Participants

The study sample consisted of leisure and fitness professionals working in Munster facilities. Leisure and fitness professionals were uniquely able answer questions in relation to the physical environment of the facilities they work in. They also had information regarding equipment and the policies that facilities have in place regarding accessibility. Participants were selected in line with specific inclusion criteria (Table 1).

Table 1: Inclusion Criteria

Leisure and fitness professionals:

- working in the leisure facility for a minimum of nine months, to ensure knowledge of the research topic,
- aged 18 and over,
- have fluent English, and
- only one employee from each leisure centre was included.

Purposive sampling was used, which involved the deliberate choice of respondents to reflect some characteristics of interest, in this study fitness and leisure professionals were targeted due to their place of employment, (Green & Browne, 2006). Respondents were recruited from all facilities on the Cork Sports Partnership database who met the inclusion criteria. Further respondents were sourced by the main researcher using a snowballing technique. All potential respondents were informed of the study via e-mail (Appendix D). The e-mail contained additional information about the study as an attachment (Appendix E), and a link to the online survey. Informed consent was gained prior to commencement of the questionnaire. Confidentially and anonymity was ensured at all times. Recruitment began in February 2014 with the distribution of 101 questionnaires. In an effort to increase the response rate a

reminder e-mail was sent three weeks later. 42 responded but 12 were excluded due missing data. A low response rate of 30% was obtained.

Data Analysis

Nominal and ordinal data were generated from the closed questions, which were coded using a code book (Appendix F), and analysed quantitatively using SPSS 20.0 statistical computer software with descriptive statistics (IBM Corporation, 2011). Categorical content analysis was used to analyse the qualitative data generated from the open-ended questions by noting them and grouping into categories (Bell, 2005).

Validity and Reliability

The test for reliability for this study was addressed at the construction of the questionnaire stage, questions were drawn and adapted from trialled and tested surveys. The
pilot test of the questionnaire and subsequent discussions with the participants helped ensure the validity of the study. Frequent debriefing sessions were also held between the researcher and supervisor.

Results

The following results highlight the diverse nature of accessibility and will be presented and discussed in five sections. A summary of results can be seen in Appendix G.

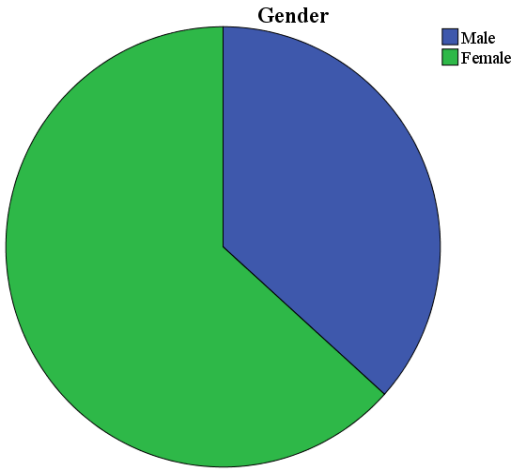
1. Demographics

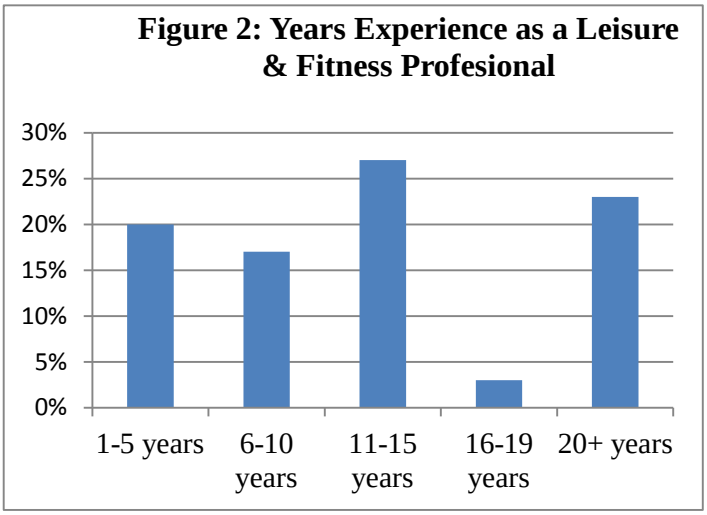
The majority of the participants were female (63%) (Figure 1), and Irish (93%). The majority of respondents were aged between 25 and 40 (70%). The average number of years experience working as a leisure and fitness professional was 14 years (Figure 2). The majority of respondents had at least a certificate/diploma qualification (44%), or a degree (29%). The majority of respondents were employed by facilities located in County Cork (73%), while the remainder where based in counties Clare, Kerry, Tipperary, and Waterford. (Table 2)

Table 2:	**Participant Demographics**		
Gender	Male: 11	**Nationality**	Irish: 28

	Female: 19		British: 1
Age	18- 24 yrs. old: 3 25-30 yrs. old: 11 31-40 yrs. old: 10 45-50 yrs. old: 5 65+ yrs. old: 1	**Location of Employment (County)**	Cork: 22 Clare: 3 Kerry: 2 Tipperary: 2 Waterford: 1
Education	Primary: 1 Secondary: 1 Certificate/Diploma 15 Degree: 10 Post-Graduate: 3	**Experience working as a leisure & fitness professional**	1-5 yrs.: 6 6-10 yrs.: 5 11-15 yrs.: 8 16-19 yrs.: 1 20+ yrs.: 7

Figure 1: Gender of Respondents

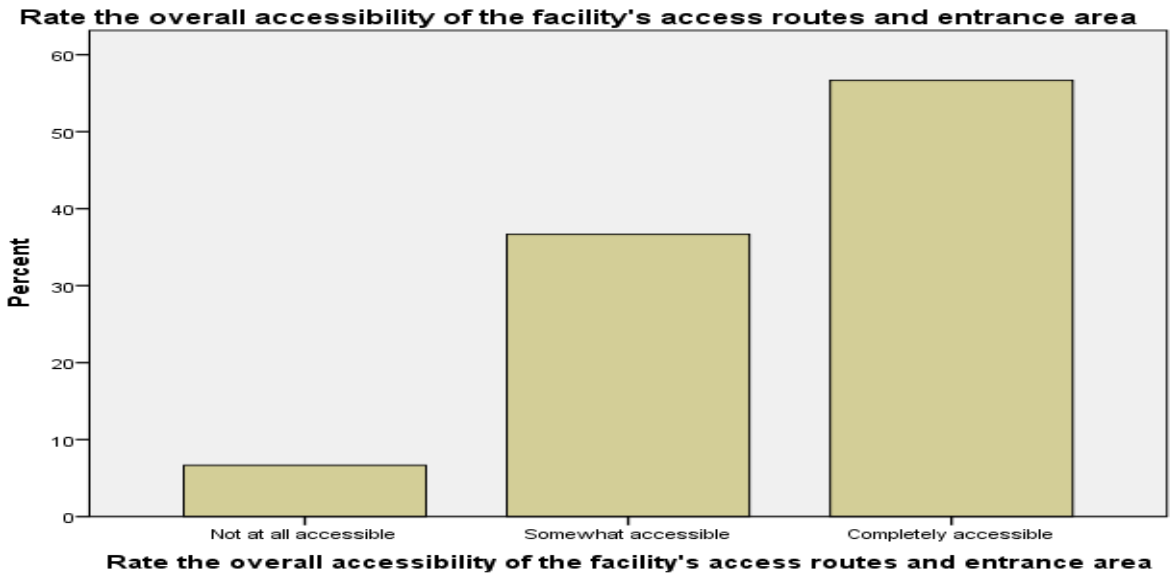




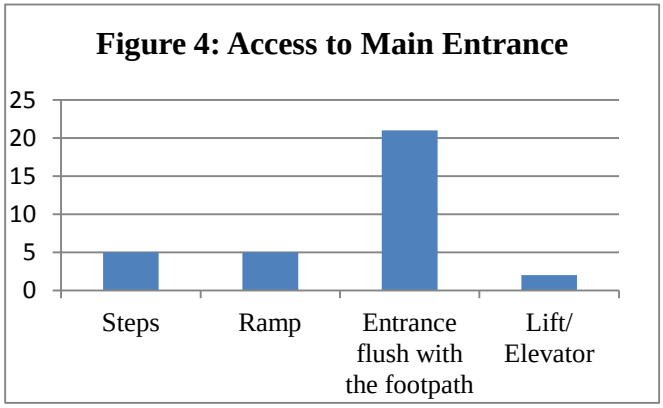
2. External Environment & Entrance

In relation to the external environment and entrance 6.7% of respondents rated the overall accessibility of the facility access route and entrance area as "not at all accessible", 36.7% as "somewhat accessible" and 56.7% as "completely accessible" (Figure 3).

Figure 3:



All respondents reported the facility had a car park, and 83% have designated car spaces for the disabled, while only 33% had a shelter from the rain at the entrance. It was found that 97% of the facilities have an accessible path of travel leading from the car park to the main entrance. The majority of facilities had entrances that were flush to the footpath (70%) while steps were the only entrance option for 10% of the facilities (Figure 4). The main entrance door of the facilities opens either by a push/pull mechanism (73%) or automatic door through the use of a sensor (27%). Half of the facilities surveyed had a multi-level reception desk. Of the 25 multi-level buildings, 56% had lifts/elevators, 1 of which was out of order. Two had escalators and one had a ramp available, while stairs was the only option in 32% of the multi-level facilities.

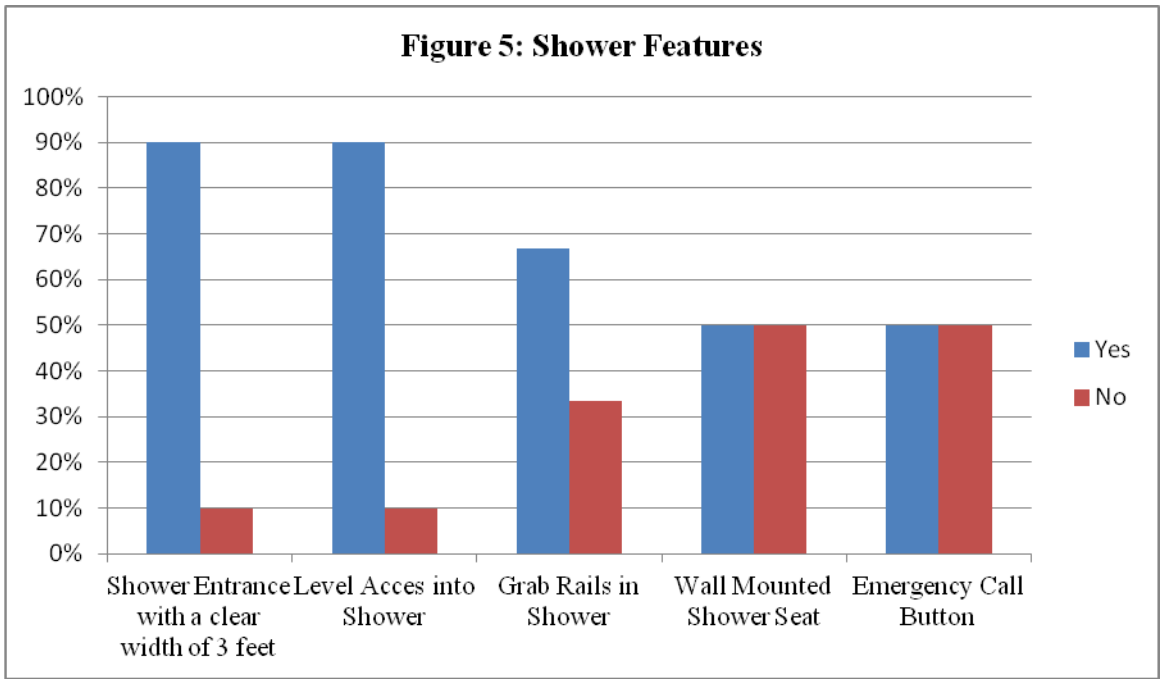


3. Internal Environments

(Changing Rooms, Toilets & Showers)

In general facilities had a wheelchair accessible toilet (90%). All the facilities had changing rooms, 10% of which reported that they were "not at all accessible", 7% "somewhat inaccessible", 30% "somewhat accessible" and 50% as "completely accessible". The majority of facilities (90%) changing

rooms had lockers which are accessible from a seated position. In relation to routes leading from the changing rooms to other areas of the leisure centre 80% of respondents reported they were free from obstacles. All respondents reported that the facility had a shower, over half (53%) of which rated them as "completely accessible". Findings relating to the showers indicate that 90% have at least one level-access shower with an entrance with a clear width of 3 feet. However only half of the facilities surveyed have a wall mounted shower-seat and an emergency call-button. While 67% have grab rails fitted within the shower (Figure 5).



4. Amenities

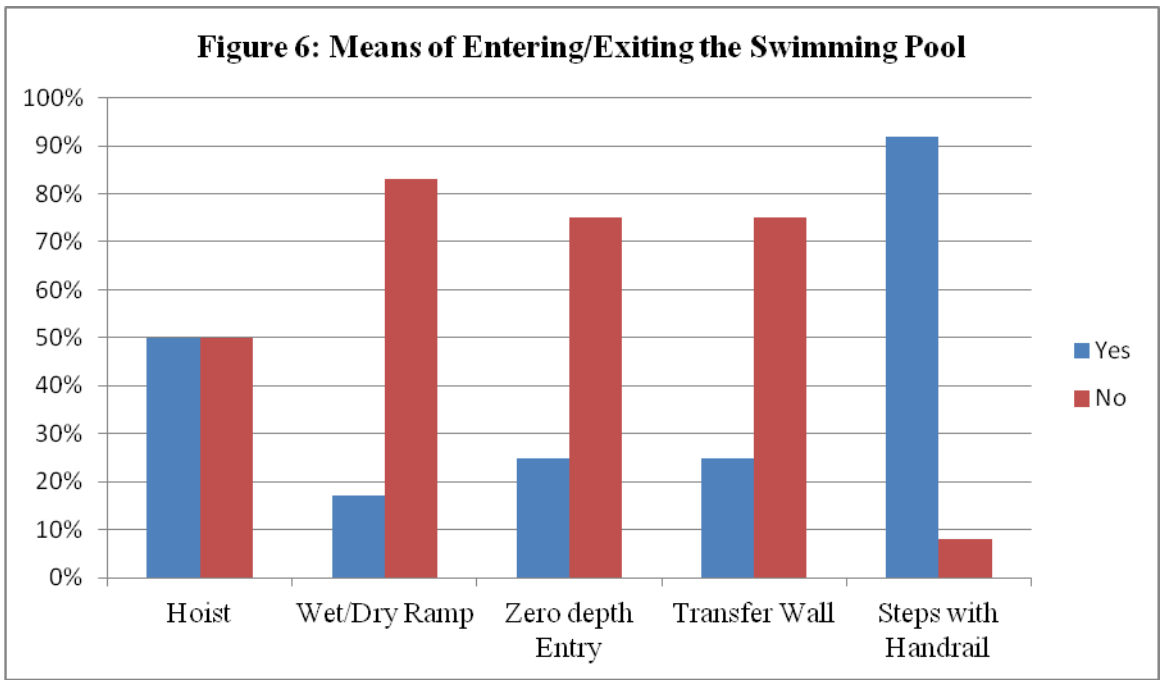
(Exercise Equipment & Swimming Pool)

24% of respondents rated the overall accessibility of the exercise equipment as either "somewhat inaccessible" or "not at all accessible". Less than half (43%) of the facilities have dual use equipment[1]. Equipment was arranged in rows in 73% of the facilities. The majority of respondents (80%) reported that the paths around the equipment were free from obstacles while only half reported that the path adjacent to the equipment had a clear width of at least 3 feet which is essential for wheelchair access. In relation to alternative formats for descriptions of controls on exercise equipment 37% of facilities did

[1] Dual use equipment is exercise equipment which can be used by people with and without disabilities.

not have any available. Of those who did the most common alternative was pictograms (56%), followed by large print (28%), raised lettering (22%), audio (22%) and Braille (17%).

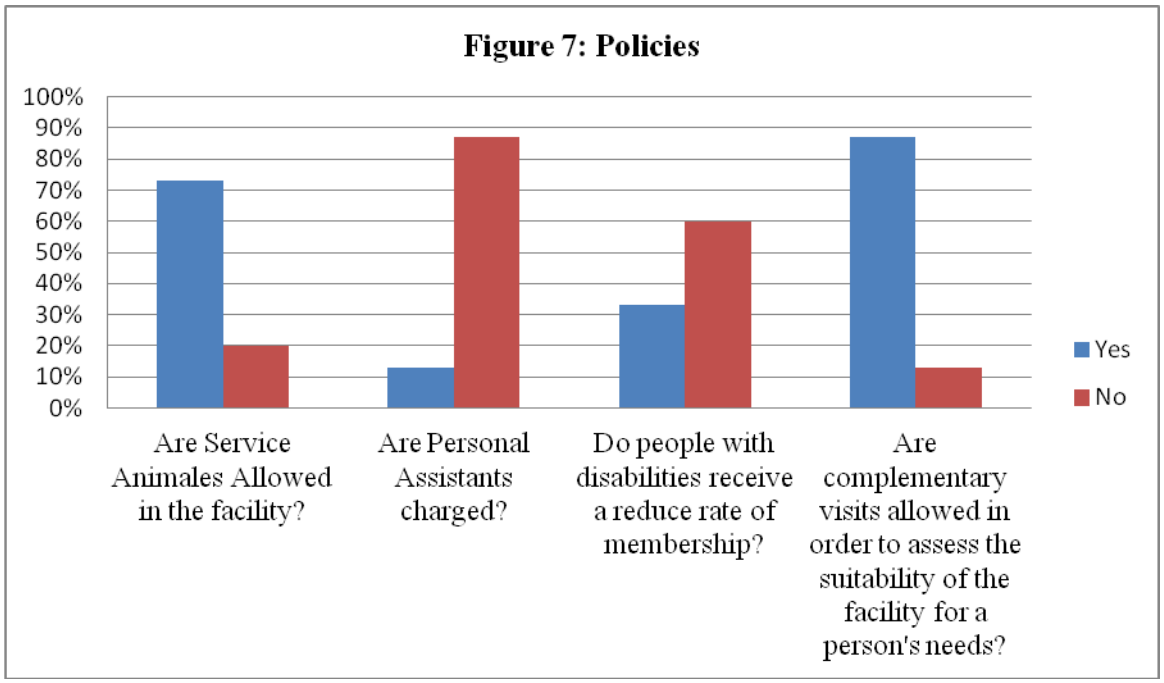
80% of respondents reported having a swimming pool in the facility. Of these; 8% rated the swimming pools as "not at all accessible"; 12.5% stated that the pool depth markers were not clearly visible from outside the pool; and the majority (92%) reported that lifeguards are available to provide assistance to people with disabilities. The majority of respondents (92%) reported that the paths leading to and around the pool have a clear width of at least 3 feet. The most common means of entering the pool is by way of steps with a handrail, although half of the facilities also have the option of a pool hoist (Figure 6).



5. Policy, Planning & Personnel

20% of respondents reported that service animals (i.e. guide dogs) were not allowed into the facility. In terms of membership fees; 87% of facilities allow personal assistants to enter the facility to assist a person with a disability free of charge, but only 33% of facilities offer a reduced rate of membership to people with disabilities. A strong degree of variability was noted in relation to reduced membership rates for people with disabilities. Numerous respondents made additional comments that there is a reduced rate for old age pensioners, unemployed people and students and that if a person with a disability falls into this category then h/she will receive a discount. Another leisure and fitness

professional commented: "*We believe it is only fair to give a discount as people have to overcome enough with a disability so they shouldn't have to pay premium rates to ensure they have the best chance at a healthy lifestyle"*. Other respondents noted that reduced membership applied due to the fact that not all of the facility is accessible and therefore usable by clients with disabilities and "*because it can be harder for them to use it as often as others*". Another respondent stated that "*We don't advertise a reduced rate but would offer it to any person who has a disability when they arrive*". Furthermore the majority (87%) allow complementary visits in order for persons with disabilities to assess whether the facility meets their needs. (See Figure 7).

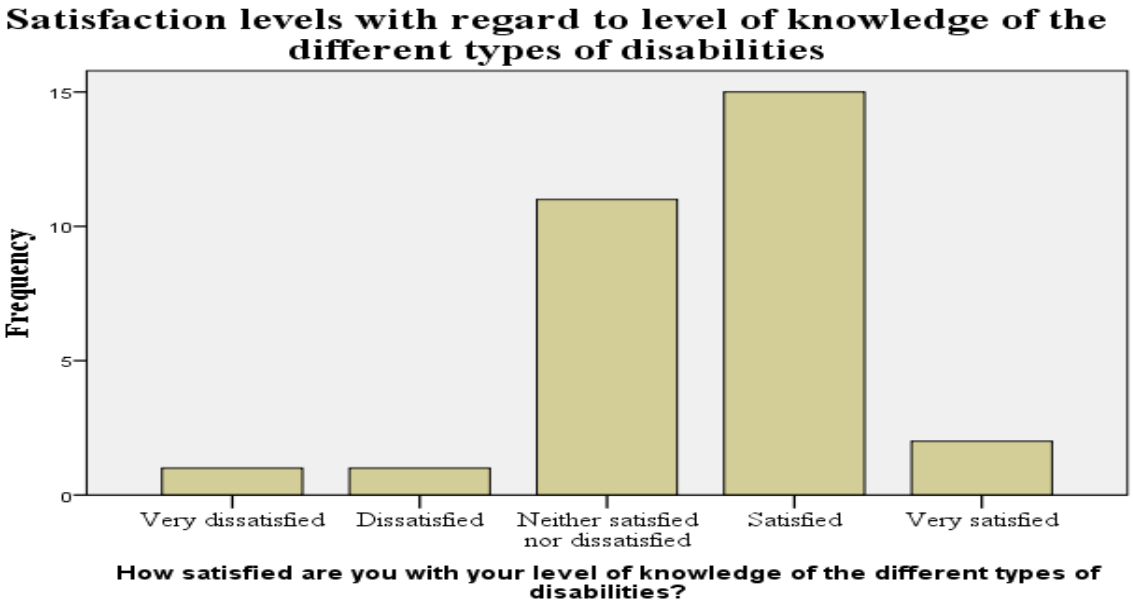


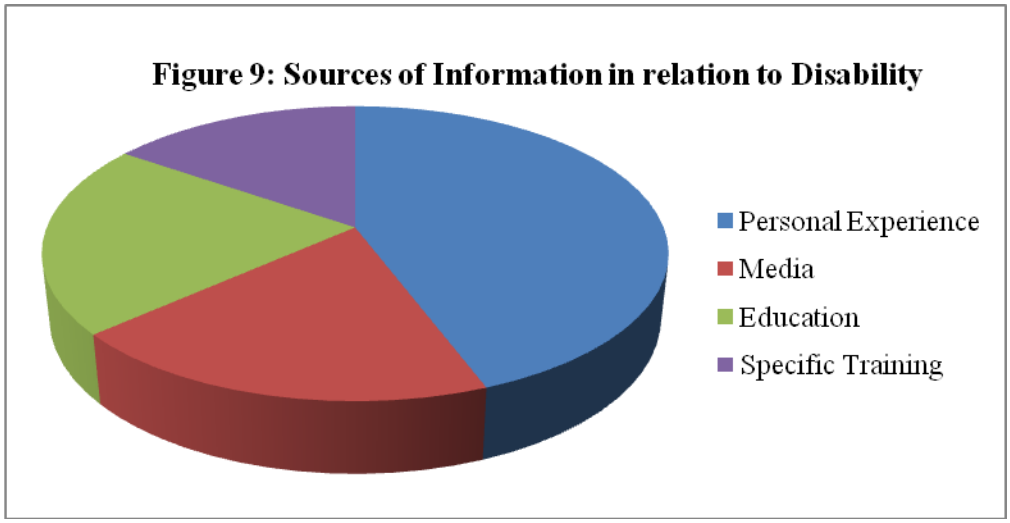
Half of the facilities' mission statements indicate that the inclusion of people with disabilities is a facility goal, but only 20% of facilities reported that their advertising brochures indicated that people with disabilities were welcome in the facility, and only 33% of facilities' marketing plans include persons with disabilities as a targeted population.

Only 20% of respondents reported that staff had received specific disability training. 47% of respondents reported that staff were trained in manual and patient handling, while 13% reported that staff were trained in manual handling only. One respondent added that "*we don't promote the staff to perform patient handling*".

Half of those surveyed were satisfied with their level of knowledge in relation to issues regarding disabilities, while 37% reported being "neither dissatisfied nor satisfied" and 6% reported being dissatisfied or very dissatisfied (Figure 8). The most common source of information regarding disability issues was personal experience with just 28% reported having received specific training (Figure 9). In general (60%) of respondents expressed confidence in assisting people with disabilities in their facility, while 10% stated they felt "not confident" or "not very confident".

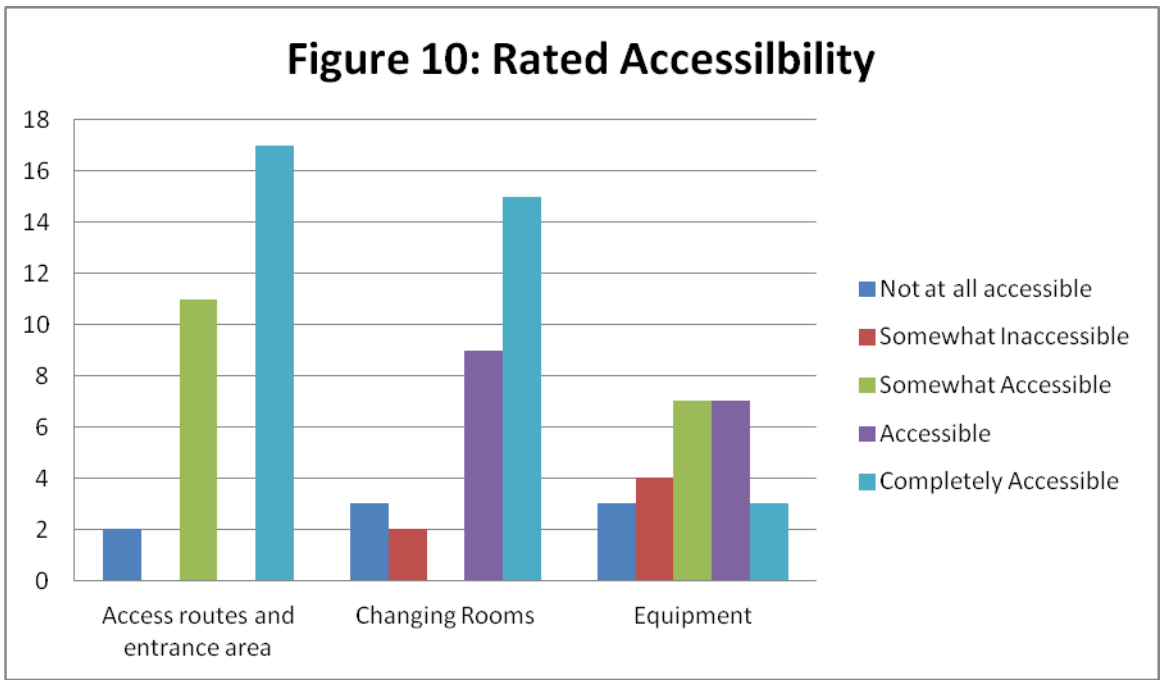
Figure 8:





Open-ended questions gathered opinions in relation to the challenges the facility faces in relation to the inclusion/facilitation of people with disabilities (Appendix H). The most frequent response to this question was in relation to funding and the built-environment. Respondents noted the age of the building, lack of space and the fact that parts of the facilities are located on the second floor with only a stairs as means of access. A large number of respondents expressed views that disability access equipment is very expensive and that a lot of money would need to be spent in order to make the facility completely accessible. Only one respondent mentioned staff awareness as a challenge. When asked how these challenges could be addressed almost all of the responses included the need for additional funding. Respondents differed in their views as to whether people with disabilities receive equal opportunities in terms of participating in leisure, with 60% believing people with disabilities do have the same opportunities as their able bodied peers. See Table 3 for additional qualitative data.

Table 3: Additional comments in relation to whether people with disabilities receive equal opportunities in terms of participating in leisure:
"I would feel that children with disabilities are at times excluded due to their parents who would be nervous about letting them take part"
"As with the rest of the population, the participators participate regardless of their ability/disability and the non-participators make excuses why they don't"
"Opportunity is there not sure about facilities"
"The opportunities are there but lack of self-confidence can be a barrier to them entering the centre"
"Not all centres are able to cope or handle people with disabilities"
"There is not a lot on offer there to accommodate people with disabilities"
"Those with physical disabilities that are wheelchair users face more problems in relation to using pool areas that do not provide hoists. There is often limited room in changing rooms."



Discussion

The findings in this paper contribute to the knowledge about the barriers of inclusion for people with physical disabilities in facilities.

1. External Environment & Entrance

All the facilities reported having a car park with the majority (83%) having designated spaces for people with disabilities. The majority of participating facilities had an accessible entrance route, which is consistent with previous studies (Sá et al., 2012; Cardinal & Spaziani, 2003). It is important to note however that the only means of entering 10% of the facilities was via steps making it impossible for wheelchair-users to enter the facilities. The present study also identified that the majority of facilities are accessed by means of a push/pull door system which may be difficult for people with physical disabilities to operate. Similarly Rimmer (2005) found that doors of leisure facilities are often difficult to open and unlikely to have power assisted doors. Entrance doors which open automatically would fit well with the concept of universal design, in that it would make the facilities easier to access for people with limited strength, parents with buggies, customers carrying gear bags as well as wheelchair-users.

The majority of facilities in the present study were multi-level buildings, of which 60% had an elevator but stairs was the only option in 28% of facilities making additional levels completely inaccessible to wheelchair-users. These results correspond to previous studies who cited lack of elevators as being a major barrier (Elsworth et al., 2009; Rimmer et al., 2004). The present study noted a higher compliance

rate (50%) in relation to multi-level reception desk than Rimmer et al., (2004) which found that only 37% of facilities had reception desks that were at an accessible height for a wheelchair-user to communicate with the person at the desk. This accessible feature could be inviting for a group of customers who might be more likely to have questions or require additional services.

2. Internal Environments

(Changing Rooms, Toilets and Showers)

Facilities had combinations of accessible and inaccessible features in relation to internal environments. Most facilities reported having an accessible toilet, lockers available from a seated position and level access showers with an entrance width of at least 3 feet. The facilities were less likely to have wall mounted shower-seats, emergency call-button and grab rails. These findings are similar to international research on physical accessibility of facilities (Sá et al., 2012; Rimmer et al., 2004; Cardinal & Spaziani, 2003). A significant proportion of respondents, 10% and 13% respectively, stated that the changing rooms and showers were "not at all accessible". Unfortunately lack of access to a shower after a workout or swim is likely to discourage many people with disabilities from joining and using leisure facilities.

3. Facilities/Amenities

(Exercise Equipment & Swimming Pool)

Although the majority of respondents reported the facilities had clearly visible pool depth markers, an adequate clear path to and around the swimming pool, specifically accessibility features, such as transfer walls[2] and zero-depth entry[3], were considerably less common. A preference was demonstrated for pool hoist/lift which 50% of facilities reported having. Similarly Rimmer et al., (2005) assessed 35 facilities across the United States and found only 25% and 50% of facilities had a wet/dry ramp and pool lift, respectively. The lack of alternative methods for entering and exiting the pool compromises the active participation of people with reduced mobility, particularly wheelchair-users.

The present study found that less than half of the facilities have dual-use equipment and adequate space around equipment. This is consistent with findings from previous studies (Rimmer et al., 2004). Traditional exercise machines can often be difficult to lift or propel especially for people with low

[2] A transfer wall is a wall along an accessible route that allows a person to leave a mobility device and transfer onto the wall and then into the pool. Transfer walls must have at least one grab bar.

strength levels. This lack of adapted equipment clearly limits the amount of enjoyment and benefit that can be obtained from a more diversified program. While the lack of space around the equipment can impede the movement of wheelchair-users. The present study found 38% of facilities exercise equipment had no alternative information display format available, possibly making display panels difficult to read or understand for people with vision impairments. Rimmer et al., (2004) found that people with visual disabilities have problems using various types of equipment as display panels are often difficult to read. This suggests that manufacturers of exercise equipment do not consider the needs of people with disabilities when designing exercise equipment specifications.

4. Policy, Planning & Personnel

Findings highlighted that 33% of facilities offer a reduced rate of membership to people with disabilities, however 87% of facilities allow complementary visits in order for people to determine if the facility meets their needs. These results are in line with previous research which identified the cost of membership as a barrier (Elsworth et al., 2009; Rimmer et al., 2008; Rimmer et al., 2004). This raises the question why customers with disabilities are expected to pay the same membership fee as customers without disabilities but cannot access all the facility. It is also important to note that in the present study the majority of facilities do not charge admission to personal assistants when assisting a person with a disability. This is a positive finding in light of the fact that the 2011 Irish Census found that a total of 187,112 persons or 4.1% of the total population were providing unpaid assistance to others (CSO, 2012).

An issue highlighted by this study's finding, not previously reported was the issue in relation to guide dogs being permitted to enter the facilities premises. Service animals were not permitted on 20% of the premises. This is a concerning finding considering that under the Equal Status Acts 2000 to 2011, service providers, which includes leisure and sports centre proprietors, are prohibited from discriminating against persons with disabilities. Facilities must make reasonable changes to how their services are provided, where without these it would be impossible or unduly difficult for persons with disabilities to avail of those services. Therefore facilities are legally obliged to facilitate guide dogs on their premises when the guide dog is assisting its owner.

[3] A zero-depth entry is a gradual entry, in which the pool has an edge or entry that gradually slopes from the deck into the water, becoming deeper with each step, in the manner of a natural beach.

The present study found that only 20% of facilities' advertising brochures indicate that people with disabilities are welcome in the facility and only 33% of facilities marketing plans include persons with disabilities as a targeted population. Previous studies have found that many individuals with disabilities are interested in participating in fitness and recreation activities but are either unaware of available and accessible facilities or perceive facilities to be inaccessible (Elsworth et al., 2009; Rimmer et al., 2004; Rimmer et al., 2000). Lack of marketing can lead to low awareness of the types of activities and appropriate facilities that are available in local communities. Another respondent remarked that the facility did not currently need a pool hoist as they had very few wheelchair-users using the facility. The leisure and fitness professional interpreted the absence of individuals with disabilities in the swimming pool as a lack of demand for the service. The failure to see that purchasing a hoist would increase the accessibility for people with disabilities and thus increase the facility's potential client base is a concern. These findings raises the question as to why so few facilities target this expanding market? Further research is required to answer this question.

In line with previous research a minority (20%) of facility staff have received training in disability awareness and adapted physical-activity (Elworth et al., 2009; Riley et al., 2008). The present study also found that the majority of respondents reported that staff were not trained in manual and patient handing. Furthermore the present study found that leisure and fitness professionals were only moderately aware of the Disability Act 2005 and the National Disability Authority (70% and 60% respectively). It is imperative that leisure and fitness centre proprietors and managers are aware of their responsibilities in relation to providing an accessible service to all. The majority of respondents reported that personal experience was their main source of information about issues in relation to disability, with relatively few respondents reporting that staff receive specific disability training. It is interesting to note that while the majority of staff have received no specific training most respondents expressed satisfaction with their level of knowledge in relation to disability issues. Leisure and fitness professionals expressed feeling confident (60%) and very confident (17%) in assisting people with physical disabilities. Interestingly respondents reported feeling more comfortable with people with Intellectual disabilities attending the facility than with people with mental health difficulties. These statistics would question how so many respondents were satisfied with their level of knowledge given the apparent lack of training and education.

Issues in relation to the built-environment were consistently mentioned when asked what challenges the facilities encounter when facilitating and including people with physical disabilities in the facility. Only one respondent recognised the need for increased awareness and education. This inclination to view the built-environment as the only barrier to access displays a lack of awareness of other types of barriers such as lack of knowledge and attitudinal barriers.

The findings of this study collaborate with previous research findings (Rimmer et al., 2004), with regard to the large number of facilities citing lack of funding and investment as a major barrier in enabling them to include and facilitate people with disabilities. However many barriers can be removed in a relatively straightforward and cost-effective manner. Examples would include the rearrangement of exercise equipment, modification of facility policies, education, adding or replacing signage. and removal of obstacles.

These results are significant especially when one considers the wide variety of benefits associated with physical-exercise, and the fact that even the lack of one accessible feature in any facility could make it difficult or impossible for a person with a physical disability to access and use the facility.

Limitations and Recommendations

Limitations to this study include the use of self-reported information and subjective measures of accessibility, which are dependent on the definition, accuracy and honesty of the respondents, and the potential for social desirability bias in the measurement. Selection bias i.e. self-selection of individuals to participate in a survey, is another limitation of this study because individuals who volunteer to complete the survey may be more accessibility aware. The facilities in this study may not be representative of all the facilities in Munster due to these limitations along with the low response rate. However many of the findings regarding physical and economic barriers mirror other studies looking at the accessibility of leisure facilities, which offers support to the strength of these results.

For a more comprehensive insight into the accessibility of facilities in Ireland further research is needed to investigate perceived barriers from the service-users with disabilities perspective. The facilities' lack of marketing and advertising targeted at people with disabilities also warrants further research.

Conclusion and Implications for Practice

This questionnaire study explored the structural environment, policies and the opinions of those working in leisure facilities to ascertain the barriers to participation in physical-exercise in leisure and fitness facilities from an Irish perspective. While the majority of facilities in the study had accessible features pertaining to parking areas, changing rooms and showers, a large number of facilities do not have automatic entrance doors, have limited availability of dual-use exercise equipment and do not have a swimming pool hoist, thereby excluding wheelchair-users. However not all the barriers encountered in leisure facilities related to aspects of the built-environment. A lack of specific training in disability awareness was also identified. In addition a minority of facilities do not permit guide dogs on their premises. It can be concluded that people with physical disabilities are experiencing occupational injustice as a result of the barriers which restricts and limits their participation in physical-activity within the setting of leisure facilities in Munster.

Increasing access to physical-activity for the over half a million people with disabilities in Ireland requires a cohesive approach that emphases universal design and equal access for all. Facility employees lack of awareness in relation to accessibility and disability indicate the need for occupational therapy interventions at the facility and community level. OTs expertise in environmental design, knowledge of disability and how the person, environment and occupations interact places OTs in the ideal position to advocate for inclusive design in building planning, design and policy making. OTs need to be proactive in educating leisure and fitness employers and employees, and community members on the accessibility rights for individuals with disabilities as well as the concept of universal design. OTs can also provide recommendations on structural modification and adaptation, adaptive equipment, and employee education to help facility owners and employees provide an inclusive exercise environment for all.

OTs also have a role to play in the promotion of physical-activity by encouraging and facilitating people with physical disabilities to become more physically active. Regular participation in physical-activity is critical for people with disabilities in terms of improving their health and well-being, reducing the incidence of chronic diseases, improving secondary conditions and allowing individuals to maintain a higher level of independence in performing various activities of daily living and instrumental activities of daily living (Stoelle & Sames, 2014; Rimmer, 2005). To conclude people with disabilities have a need and a right to participate in meaningful activities within leisure and fitness

facilities, and should not encounter occupational injustice in the form of physical and psychosocial barriers.

Acknowledgements

The author would like to thank all the participants for completing the survey.

Much gratitude is owed to Dr. Helen Lynch and Dr. Janice Crausaz for their knowledge, time and insight throughout the research process.

Additional gratitude is expressed to Aisling Drea, formally of the Cork Sports Partnership, who aided in the formulation of the questionnaire and in the recruitment of participants.

I would also like to thank the Community-Academic Research Links (CARL), in particular Anna Kingston, for providing me with the opportunity to carry out this research.

Appendix

Appendix A: Community-Academic Research Links (CARL):

What is Community-Academic Research Links (CARL)?

Community Academic Research Links (CARL) is a service provided by research institutes for the Civil Society Organisations (CSOs) in their region which can be grass roots groups, single issue temporary groups, but also well structured organisations. Research for the CSOs is carried out free of financial cost as much as possible.

CARL seek to:

• provide civil society with knowledge and skills through research and education;

• provide their services on an affordable basis;

• promote and support public access to and influence on science and technology;

• create equitable and supportive partnerships with civil society organisations;

• enhance understanding among policymakers and education and research institutions of the research and education needs of civil society, and

• enhance the transferrable skills and knowledge of students, community representatives and researchers (www.livingknowledge.org).

What is a CSO?

We define CSOs as groups who are non-governmental, non-profit, not representing commercial interests, and/or pursuing a common purpose in the public interest. These groups include: trade unions, NGOs, professional associations, charities, grass-roots organisations, organisations that involve citizens in local and municipal life, churches and religious committees, and so on.

Additional Information

The UCC CARL website has further information on the background and operation of the community-academic research links at University College Cork: http://carl.ucc.ie.

CARL is part of an international network of Science Shops. You can read more about this vibrant community and its activities on this website: http://www.scienceshops.org.

Appendix B: Ethics Approval Letter

COISTE EITICE UM THAIGHDE CLINICIÚIL
Clinical Research Ethics Committee

Tel: + 353-21-490 1901
Fax: + 353-21-490 1919

Lancaster Hall,
6 Little Hanover Street,
Cork,
Ireland.

Coláiste na hOllscoile Corcaigh, Éire
University College Cork, Ireland

Our ref: ECM 4 (xxx) 03/12/13

2nd December 2013

Dr Helen Lynch
Department of Occupational Therapy
Brookfield Health Sciences Comlex
Western Road
Cork

Re: Exploring accessibility of leisure centres in Munster for people with disabilities.

Dear Dr Lynch

Expedited approval is granted to carry out the above study at:

- University College Cork.

The following documents have been approved:

- Application Form
- Introductory Letter
- Information Lealfet
- Consent Form
- Questionnaire
- Study Protocol.

We note that the co-investigator involved in this study will be:

- Brid Hannon.

Yours sincerely

Professor Michael G Molloy
Chairman
Clinical Research Ethics Committee
of the Cork Teaching Hospitals

The Clinical Research Ethics Committee of the Cork Teaching Hospitals, UCC, is a recognised Ethics Committee under Regulation 7 of the European Communities (Clinical Trials on Medicinal Products for Human Use) Regulations 2004, and is authorised by the Department of Health and Children to carry out the ethical review of clinical trials of investigational medicinal products. The Committee is fully compliant with the Regulations as they relate to Ethics Committees and the conditions and principles of Good Clinical Practice.

Appendix C: Questionnaire (Including Consent Sheet)

Please find overleaf.

Appendix D: E-mail sent to potential participants

To Whom it May Concern,

My name is Brid Hannon and I am a 4th year Occupational Therapy Student in University College Cork (UCC). I am conducting my final year research study, in collaboration with the Cork Sports Partnership, on "The accessibility of leisure centres in Munster for people with physical disabilities", which has been approved by UCC ethics board.

As part of my study I have put together a survey and would be very grateful if you or a fitness and leisure professional would fill it out online. I am asking for your help as you are in a unique position to help identify what helps and/or hinders people with physical disabilities from attending and using leisure facilities in Munster. Ideally you must be aged 18 or over, working in the leisure centre for a minimum of nine months and be fluent in English. All that is required is to complete an online survey which should take less than 15 minutes to complete and is completely anonymous.

This link will bring you directly to the survey:
https://www.surveymonkey.com/s/CompleteQuestionnaire

Please find attached an information sheet with more detailed information about my study. If you have any queries or questions please do not hesitate to contact me at any time on 086-3485369 or 105763959@umail.ucc.ie.

Thank you very much for your participation.

Kind Regards,

Brid Hannon

4th year Occupational Therapy Student, UCC.

Appendix E: Additional Information Sheet for Potential Participants sent as an attachment in the e-mail

Coláiste na hOllscoile Corcaigh, Éire
University College Cork, Ireland

University College Cork,
College Road,

Cork.

Dear Sir/Madam,

INVITATION TO PARTICIPATE IN A RESEARCH STUDY

I am a 4th Year Occupational Therapy student in UCC and I am inviting you to take part in my final year research study. Before you decide whether or not to take part, please take the time to read the following information carefully.

RESEARCH STUDY: Exploring the accessibility of leisure centres in Munster for people with physical disabilities.

WHAT IS THE PURPOSE OF THE STUDY?

The purpose of this study is to explore how accessible leisure centres in Munster are to people with physical disabilities. I hope to develop an understanding of how the physical structure of the leisure centre and the equipment the centre has helps people with disabilities to enter and use the leisure centre. The study aims to find out what policies if any, your leisure centre has in relation to people with disabilities, and to find out what attitudes and beliefs fitness instructors have about people with disabilities. This study will help to identify areas that could be improved upon in your leisure centre, with regard to access for people with disabilities.

WHY HAVE YOU BEEN INVITED TO PARTICIPATE?

One fitness and recreational professional per leisure centre is invited to take part in this study. As a fitness and recreational professional you are uniquely able to answer questions in relation to physical, attitudinal, and facility policies of leisure centres.

DO I HAVE TO TAKE PART?

It is your choice to take part in this research project or not, but your agreement to do so would be greatly appreciated. If you consent to participate, you are free to withdraw at any time.

WHAT WILL HAPPEN IF I TAKE PART?

You will be asked to complete one online questionnaire, which will take approximately 15 minutes to complete.

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

All information gathered will be kept confidential. All names will be changed and pseudonyms will be used on any written material reporting the study. All information collected will be kept on a password protected laptop and will only be accessed by me.

WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY?

After the study you will be provided with a copy of the research paper if requested. The study will be reported in a research paper and poster which will be presented to the University College Cork (UCC) Department of Occupational Science and Occupational Therapy. A copy of the report will also be sent to the Cork Sports Partnership and CARA Adapted Physical Activity Centre. CARA co-ordinates national initiatives and works through the Local Sport Partnerships in each county to improve opportunities and quality of provision of sporting activities for people with disabilities.

WHO IS ORGANISING THE RESEARCH?

Brid Hannon, a 4th year Occupational Therapy student is the primary researcher with support from the Cork Sports Partnership.

HAS THE STUDY ETHICAL APPROVAL?

The study has been approved by the University College Cork (UCC) Clinical Research Ethics Committee (CREC).

Thank you for taking the time to consider this,

Yours sincerely,

Brid Hannon

4th Year Occupational Therapy Student, UCC.

Date: 24th February 2014.

CONTACT FOR FURTHER INFORMATION:

If you have any questions or queries, please do not hesitate to contact me.

My contact details are:

E-mail: 105763959@umail.ucc.ie

Phone : 086 3485369

Appendix F: Code Book

Question Number	Variable	SPSS Variable	Code
1	Approximate year facility was built	YearBuilt	
2	Building designed to be wheelchair accessible	DesignedAccessible	1 = No 2 = Yes
3	Approximate number of members	NoMembers	
4	Existence of a gym at the facility	Gym	1 = No 2 = Yes
5	Existence of a swimming pool at the facility	SwimmingPool	1 = No 2 = Yes
6	Existence of a hall at the facility	Hall	1 = No 2 = Yes
7	Accessibility of the facility's access routes and entrance areas	RateAccEntranceArea	1 = Not at all accessible 2 = Somewhat Inaccessible 3 = Somewhat Accessible 4 = Completely Accessible
8	Accessible path of travel from the street or car park to the facility entrance	AccPathEntry	1 = No 2 = Yes
9	Accessible entrance on the ground floor of the facility	AccEntrance	1 = No 2 = Yes
10	Main entry access	OptionsEntrance	1 = Steps 2 = Ramp 3 = Entrance flush with the entrance 4 = Lift/Elevator 5 = Other
11	Options of how to open the main door of the facility	EntranceOpenDoor	1 = Push/Pull Mechanism 2 = Automatic door through the use of a sensor

			3 = Electronic push button 4 = Power Assist 5 = Other
12	Availability of a multi-level reception desk in the reception area	MultiLevelReceptionDesk	0 = N/A 1 = No 2 = Yes
13	Multi-level building	MultiLevelBuilding	1 = No 2 = Yes
14	Options available for going between levels	LevelOptions	0 = N/A 1 = Stairs 2 = Escalator 3 = Ramp 4 = Elevator 5 = Other
15	Existence of a car park	CarPark	1 = No 2 = Yes
16	Designated car spaces for the disabled	MarkedCarSpaced	0 = N/A 1 = No 2 = Yes
17	Shelter from rain at the entrance	Shelter	1 = No 2 = Yes
18	Accessibility of the facility's equipment	AccEquip	0 = N/A 1 = Not at all accessible 2 = Somewhat inaccessible 3 = Somewhat accessible 4 = Accessible 5 = Completely accessible
19	Equipment arranged in rows	EquipRows	0 = N/A 1 = No 2 = Yes
20	Paths around exercise equipment free from obstacles	EquipPaths	0 = N/A 1 = No 2 = Yes
21	Path adjacent to the equipment have a clear width of at least 3 feet	Equip3Feet	0 = N/A 1 = No 2 = Yes
22	Machines with seat provide back support	EquipBackSupport	0 = N/A 1 = No 2 = Yes
23	Alternative	EquipConAlt	0 = N/A

	formats for the description of controls on exercise equipment available		1 = No 2 = Yes
24	Types of alternative formats for the description of controls on exercise equipment	EquipConAltOptions	0 = N/A 1 = Braille 2 = Large print 3 = Raised lettering 4 = Pictograms 5 = Audio 6 = Other
25	Dual use equipment	EquipDualUse	0 = N/A 1 = No 2 = Yes 3 = Yes but not currently working
26	Wheelchair accessible toilet	AccToilet	1 = No 2 = Yes
27	Changing rooms	ChangingRooms	1 = No 2 = Yes
28	Accessibility of changing rooms	AccChangingRooms	0 = N/A 1 = Not at all accessible 2 = Somewhat inaccessible 3 = Somewhat accessible 4 = Completely accessible
29	Lockers accessible from a seated position	Lockers	0 = N/A 1 = No 2 = Yes
30	Routes from changing rooms to other areas free from obstacles	RoutesChangingRooms	0 = N/A 1 = No 2 = Yes
31	Showers	Showers	1 = No 2 = Yes
32	Accessibility of the facility's showers	RateOverallAccShowers	0 = N/A 1 = Not at all accessible 2 = A little accessible 3 = Mostly

			accessible 4 = Completely accessible
33	Shower with an entrance with a clear width of at least 3 feet	ShowerEnt	0 = N/A 1 = No 2 = Yes
34	Shower with level access	ShowerAcc	0 = N/A 1 = No 2 = Yes
35	Shower with grab rails	ShowerGrabRails	0 = N/A 1 = No 2 = Yes
36	Shower with a wall mounted seat	ShowerWMSeat	0 = N/A 1 = No 2 = Yes
37	Shower with an emergency call button	ShowerEmCall	0 = N/A 1 = No 2 = Yes
38	Information posted on bulletin boards available in alternative formats	BulletinBoards	0 = N/A 1 = Braille 2 = Large print 3 = Raised lettering 4 = Audio 5 = Other
39	Signs with pictograms/images	SignsVisual	0 = N/A 1 = No 2 = Yes
40	Signs distinguishing accessible areas and non-accessible areas	SignsAccNonAcc	0 = N/A 1 = No 2 = Yes
41	Signs printed with light coloured characters on a dark background	SignsContrast	1 = No 2 = Yes
42	Readily available brochures	Brochures	0 = N/A 1 = No 2 = Yes
43	Images include those with a disability	ImagesDisability	0 = N/A 1 = No 2 = Yes
44	Brochures indicate people with disabilities are welcome	BrochureIndicateWelcome	0 = N/A 1 = No 2 = Yes

45	Staff familiar with accessible public transport	StaffFamPT	1 = No 2 = Yes
46	Staff received Xcessible Inclusive Leisure Centre Training from CARA Adapted Physical Activity Centre	XcessibleTraining	1 = No 2 = Yes
47	Level of knowledge of the different types of disabilities	RateKnowTypeDis	1 = very dissatisfied 2 = Dissatisfied 3 = Neither satisfied nor dissatisfied 4 = Satisfied 5 = Very satisfied
48	Sources of information	SourceInfoDis	1 = Personal experience 2 = Media 3 = Education 4 = Specific training
49	Confidence in assisting people with disabilities	ConfidentAssPpl	1 = Not very confident 2 = Not confident 3 = Not sure 4 = Confident 5 = Very confident
50	Staff trained in manual and patient handling	ManualHandling	1 = No 2 = Yes 3 = Manual Handling Training 4 = Other
51	Mission statement indicates inclusion of persons with disabilities is a facility goal	MissionStatement	1 = No 2 = Yes
52	New members asked if they require special requirements/	MamSpecReq	1 = No 2 = Yes

	accommodations		
53	Service animals allowed	ServiceAnimals	1 = No 2 = Yes
54	Personal assistants not charged	Pas	1 = No 2 = Yes
55	Reduced rate of membership for people with disabilities	ReducedRate	1 = No 2 = Yes
56	Accessibility of facility periodically reviewed	AccPeriodicallyReviewed	1 = No 2 = Yes
57	Complimentary visits permitted	CompVisits	1 = No 2 = Yes
58	Marketing plan include people with disabilities as a targeted population	MarketingPlan	0 = N/A 1 = No 2 = Yes
59	Programmes for people with disabilities	ProgDis	1 = No 2 = Yes
60	Types of programmes available for people with disabilities	ProgTypes	0 = N/A 1 = Inclusive (Mainstream programmes) 2 = Segregated (Specifically for people with disabilities)
61	Registrants with disabilities contacted prior to the start of a programme to discuss any accommodations that may be necessary for their participation	PplDisContactedPriorToProg	1 = No 2 = Yes
62	Classes include activities that can be performed from a seated position	ExerciseClassesSeatedPosition	1 = No 2 = Yes
63	Accessibility of swimming pool	AccSP	0 = N/A 1 = Not at all accessible

			2 = A little accessible 3 = Mostly accessible 4 = Completely accessible
64	Temperature of swimming pool when it is in use	SPTemp	0 = N/A 1 = 29 Degrees Celcius 2 = 30 Degrees Celcius 3 = 31 Degrees Celcius 4 = 24 Degrees Celcius 5 = 28 Degrees Celcius
65	Visible pool depth markers	PoolDepthMarkers	0 = N/A 1 = No 2 = Yes
66	Lifeguards available to assist people	Lifeguards	0 = N/A 1 = No 2 = Yes
67	Accessible path leading to the swimming pool	AccPathLeadingtoSP	0 = N/A 1 = No 2 = Yes
68	Path leading to and around swimming pool has a clear width of at least 3 feet	SPClearPath	0 = N/A 1 = No 2 = Yes
69	Swimming pool has a lift or hoist	SPLiftHoist	0 = N/A 1 = No 2 = Yes
70	Swimming pool has a wet/dry ramp	SPWetDryRamp	0 = N/A 1 = No 2 = Yes
71	Swimming pool has a zero depth entry	SPZeroDepthEntry	0 = N/A 1 = No 2 = Yes
72	Swimming pool has a transfer wall	SPTransferWall	0 = N/A 1 = No 2 = Yes
73	Swimming pool has steps with handrail	SPSteps	0 = N/A 1 = No 2 = Yes
74	Know someone with a disability	KnowSomeoneDis	1 = No 2 = Yes

75	Comfortable if people with mental health difficulties attended the leisure facility	ComMentalHealthD	1 = Very uncomfortable 2 = Uncomfortable 3 = Neither uncomfortable nor comfortable 4 = Comfortable 5 = Very comfortable
76	Comfortable if people with intellectual disabilities or ASD attended the leisure facility	ComIDASD	1 = Very uncomfortable 2 = Uncomfortable 3 = Neither uncomfortable nor comfortable 4 = Comfortable 5 = Very comfortable
77	Comfortable if people with physical disabilities attended the leisure facility	ComPhyD	1 = Very uncomfortable 2 = Uncomfortable 3 = Neither uncomfortable nor comfortable 4 = Comfortable 5 = Very comfortable
78	Comfortable if people with visual, hearing or speech difficulties attended the leisure facility	ComVisHSD	1 = Very uncomfortable 2 = Uncomfortable 3 = Neither uncomfortable nor comfortable 4 = Comfortable 5 = Very comfortable
79	Heard of the National Disability Authority	HeardNDA	1 = No 2 = Yes
80	Heard of the Disability Act 2005	HeardDisAct05	1 = No 2 = Yes
81	Heard of the Cork	HeardCSP	1 = No

	Sports Partnership		2 = Yes
82	Heard of CARA APA Centre	HeardCARA	1 = No 2 = Yes
83	Heard of the Inclusive Leisure Centre Award by Active Ireland	HeardILCA	1 = No 2 = Yes
84	People with disabilities receive equal opportunities	EqualOpp	1 = No 2 = Yes
85	Gender	Gender	1 = Male 2 = Female
86	Age Range	AgeRange	1 = 18-24 2 = 25-30 3 = 31-40 4 = 41-50 5 = 51-64 6 = 65+
87	Nationality	Nationality	1 = Irish 2 = Other
88	Years spent working as a leisure and fitness professional	YrsWorking	1 = 1-5 years 2 = 6-10 years 3 = 11-15 years 4 = 16-19 years 5 = 20+ years
89	Education	EducationLevel	1 = Primary level 2 = 2nd level 3 = Certificate/ Diplomia 4 = Degree 5 = Postgraduate Qualification 6 = No formal education
90	County	County	1 = Cork 2 = Clare 3 = Kerry 4 = Limerick 5 = Tipperary 6 = Waterford

Appendix G: Summary of Results

Variable	N/A	Yes	No	Missing
General Physical Accessibility				
Was the building designed to be wheelchair accessible?		67%	30%	3%
Does an accessible path of travel lead from the street or car park to the facility entrance?		97%	3%	
Is there an accessible entrance on the ground floor of the facility?		97%	3%	
Is the facility a multi-level building?		83%	17%	
Does the facility have a car park?		100%		
If yes, are there marked car park spaces close to the main entrance for people with disabilities?		83%	17%	
Is there shelter from rain at the entrance- to drop and collect wheelchair users?		33%	67%	
Equipment				
Is exercise equipment arranged in rows?	3%	76%	21%	3%
Are paths around exercise equipment free from obstacles?	3%	83%	14%	3%
Does the path adjacent to the equipment have a clear width of at least 3 feet?		52%	41%	7%
Do any of the machines with seats provide back support?		90%	7%	3%
Are alternative formats used for descriptions of controls on exercise equipment?		62%	38%	
Does the facility have dual use equipment?		45%	55%	
Changing Rooms				
Does the facility have a wheelchair accessible toilet?		90%	10%	
Does the facility have changing rooms?		100%		
Are there lockers that are accessible from a seated position?	6%	90%	3%	
Are the routes leading from the changing rooms to other areas of the leisure centre free from obstacles?		80%	17%	3%
Showers				
Does the facility have showers?		100%		
Is there at least one shower in the facility which has the following:				
-Level access		90%	10%	
-Clear width of 3 feet		90%	10%	
-Grab rails		67%	33%	
-Wall mounted shower seat		50%	50%	
-Emergency call button		50%	50%	
Swimming Pool				
In your judgement, are pool depth markers clearly visible from the pool?		87.5%	12.5%	
Are lifeguards available to provide assistance to people with disabilities?		92%	8%	
Is there an accessible path leading to the swimming pool?		96%	4%	
Do paths leading to and around the pool		92%	8%	

Appendix H: Qualitative Data Collected from Questionnaire

A. Other facilities:

#2: soccer pitches/tennis court
#5: outdoor pitches and café
#6: fitness studios, astro turf pitch
#8: Jacuzzi, sauna, steam room, plunge pool
#11: fitness studio for fitness classes
#12: studio
#13: 2 studios
#18: hydro therapy pool and anti gravity treadmill
#19: Adult only pool and family pool
#29: aerobics hall
#30: squash courts
#31: grass, synthetic pitches, tennis courts, p&p course, bowls green
#32: all weather pitch

B. If people receive a reduced rate of membership, why?

#4: "We believe it is only fair to give a discount as people have to overcome enough with a disability so they shouldn't have to pay premium rates to ensure they have the best chance at a healthy lifestyle".
#5: "This rate is available to all OAP, unemployed & students so if they fall into this bracket then can avail of the reduced rate"
#6: "They requested a reduced fee from their assistants when arrived. We don't advertise a reduced rate but would offer it to any person who has a disability when they arrive".
#7: "Because it can be harder for them to use it as often as others".
#8: "Can not use all the facility so a reduced rate applies – personalised memberships – not standard operation".
#24: encourage disability usage
#26: depends on the circumstances but adults are usually charged at student/OAP/ PAYG price
#29: they can only access pool area, gym on 1st floor
#34: concession rate if not working

C. Please list types of programmes your facility offers people with disabilities.

#4: gym programmes specific to the individual, aqua classes with consideration for disabled users.
#5: Halliwick, we have a designated functional area, aqua aerobics, main stream lessons and aerobics
#6: "We have run a morning club for children with ASD. Any person with a disability is offered a full programme to suit their requirements".
#7: "All activities are open to all with accommodations made where relevant".
#8: Aqua aerobics
#10: "Special Olympic Ireland"
#11: Tailored fitness programme specific to clients needs
#12: Swimming lessons, aqua aerobics
#13: Strength, goal orientated, balance and co-ordination
#14: swim, gym, schools
#17: swimming lessons, GP referral, gym programmes, fitness classes

#19: none
#23: swimming and floor work in the studio. The use of the bicycle and rowing machine. Depending on the person, we do the treadmill with them only if they are capable of this exercise
#25: mainly just to use the pool
#26: inclusive and segregated groups, individuals for gym classes, fitness classes and swimming lessons
#27: swimming lessons, aqua aerobics, gym programmes/inductions we ran an Xcessible day where groups came and used the centre free of charge to get a feel for the centre, personal training, active 55
#29: swimming pool for limited access

D. What particular types of illnesses, conditions or disabilities do you think the term "people with disabilities" refer to?

#3: blind, deaf, mute, people in wheelchairs, people with crutches, amputees
#4: physical disabilities, polio, blindness, deafness, intellectual disabilities such as autism and other behavioural syndromes.
#6: "Its wide opened from mental health and wellbeing to physical disability, or a condition like Autism. Personally I don't like the term people with disabilities, I prefer to find out exactly what the condition is so that I can research it and find out how to best deal with that person".
#10: Everything
#11: physical disabilities mostly (CP, down syndrome)
#12: physical, mental
#13: physical or mental disabilities
#16: Wheelchair users, visual, hearing, hidden eg diabetes
#17: too vast to name
#19: individuals with a physical disability or intellectual disability
#20: physical, mental
#21: physical, mental, intellectual disabilities, vision, hearing or speech disabilities
#23: anything which restricts their ability to complete tasks without any difficulty or requiring assistance
#24: huge variation too many to list
#25: something that may affect their ability to perform an action
#26: everyone has a disability of some sort
#27: persons with physical and mental disabilities, persons who use a wheelchair, persons with an intellectual disability, persons with a mental health difficulty, has asthma, the visually impaired, persons with a hearing impairment, development disability, diabetes, epilepsy, chronic illnesses…basically an impairment with a body function – a person who wears glasses would have an eye impairment etc.
#29: wheelchairs, MS
#33: wheelchair bound, downs syndrome, learning difficulties, visually impaired, mobility problems, deafness, dumb

E. Please state your relationship to the person(s) with disability:
#4: numerous clients and relatives
#6: Mother, aunt, cousin
#7: Lots
#11: brother

#9: Member friend
#12: Friend
#14: customers
#16: Wife
#18: friends/family/members of the facility
#19: friend of a friend
#21: mother
##23: brother had locked in syndrome for 2 years prior to him passing away with the return of a brain tumor
#24: clients
#25: friend
#27: cousin
#33: cousin

F. What challenges do you think your facility face in relation to including/facilitating people with disabilities in your facility?

#3: "The challenge our facilities faces is the fact that our gym is located on the 2nd floor with no elevator access effectively not allowing individuals who are in need of a wheelchair access".
#5: "Our changing room area for group sessions"
#6: "Our building is a very old building and a lot of access changes would have to be made. Funding would be another problem as we are a community gym, money that comes in is used to pay for all our costs. I also feel that disability access equipment can be very expensive".
#7: "Funding".
#8: "old centre, structural issues – funding resources".
#10: "Staff-awareness".
#11: "Heavy entrance doors, limited access, no wheelchair toilets or enough space for changing in the changing room, difficult to enter the pool are due to heavy doors, no wheelchair accessible toilet in the changing rooms, toilet is in the main lobby of hotel sometimes people have to access through the gym area this is embarrassing for them and unfair".
#12: do not think of those with hearing or sight disabilities as much as those with physical disabilities
#13: gym is located upstairs therefore we cannot cater for physically disabled individuals
#16: trying to accommodate facilities for disabilities during refurbishment
#17: funding/cost
#19: As our gym is located on the first floor and is only accessed by a stairs fitting a lift would be a major operation to undertake. The layout of the entrance to our changing rooms would need to be redone also
#20: update toilets
#21: financial support to implement such facilities is difficult
#23: We are very open to people with disabilities using the Club as we have everything in place except a hoist. The majority of people who use our facility suffer from autism and have either one or 2 carers with them at all times. We find they are all very happy and cause of no problems when on the premises.
#25: the cost of putting equipment and staff in place, as centres all around country are struggling
#26: full inclusive equipment for the gym is expensive to upgrade
#27: don't have dual use equipment or any alternative format used for description of controls on exercise equipment eg braille, large print, raised letters.

#29: Our centre is 20 years old and would need a lot of money to come up to standard for disabilities.
#33: the changing rooms are upstairs other than that its fairly accessible

G. How do you think these challenges could be reduced?

#3: Elevator
#5: "We have a wide range of services in our Functional Zone area and built up relationships with the HSE & physios so I think this is helping people with their confidence & then helping them feel comfortable and competent to use the mainstream gym".
#7: "Money".
#8: "Funding, investment".
#10: Training
#11: I feel they could be reduced but the changes would be costly and space is very limited in the changing rooms
#12: supportive information and literature, being made more aware
#13: move location, a stair lift or elevator cannot be fitted
#16: integration
#17: more allocated funding
#20: money
#21: grants from government
#23: the purchase of a pool hoist is beyond our means and with very few wheelchair bound people using the club this is something at the moment we do not need
#25: grant, donation
#27: funding from the government or LSP's for new equipment, persons using the gym that have a hearing/visual impairment can be accompanied and guided through everything
#29: a lot of funding
#33: can't be

H. In general do you think people with disabilities receive equal opportunities in terms of participating in leisure?

#6: "We would never turn someone away based on a disability. We would alter our service (class or gym) for their use and try to include them as much as possible. I would feel that children with disabilities are at times excluded due to their parents who would be nervous about letting them take part with clubs, groups. As a mother of a child with ASD my child is always included in all games and clubs".
#7: "As with the rest of the population, the participators participate regardless of their ability/disability and the non-participators make excuses why they don't".
#11: "those with physical disabilities that are wheelchair users face more problems in relation to using pool areas that do not provide hoists. There is often limited room in changing rooms."
#12: opportunity is there, not sure about facilities
#16: awareness
#21: I feel there is not on offer there to accommodate people with disabilities
#23: I would like to think so as they are as enthuastic as most able bodied people
#25: we try to make everyones visit an enjoyable one
#26: The opportunities are there but lack of self confidence can be a barrier to them entering the centre
#29: not all centres are able to cope or handle people with disabilities

Other Comments:
#2: no gym
#5: General manual handling, we dont promote the staff to perform patient handling
#18: hoist in changing rooms
#23: white plastic chair available in the shower room which can be moved around the room
#26: most staff are trained in gym and swim participation for all
#27: we have mobile seats that take individuals from the disability changing area to the pool area – these are used for showering also. We have a changing bed located in the changing area also
#27: next month 6 members of our team are undertaking a 4 day halliwick course

Appendix H: Sample SPSS Data Tables

Changing Rooms: (Toilet and Shower)

Does the facility have a wheelchair accessible toilet?

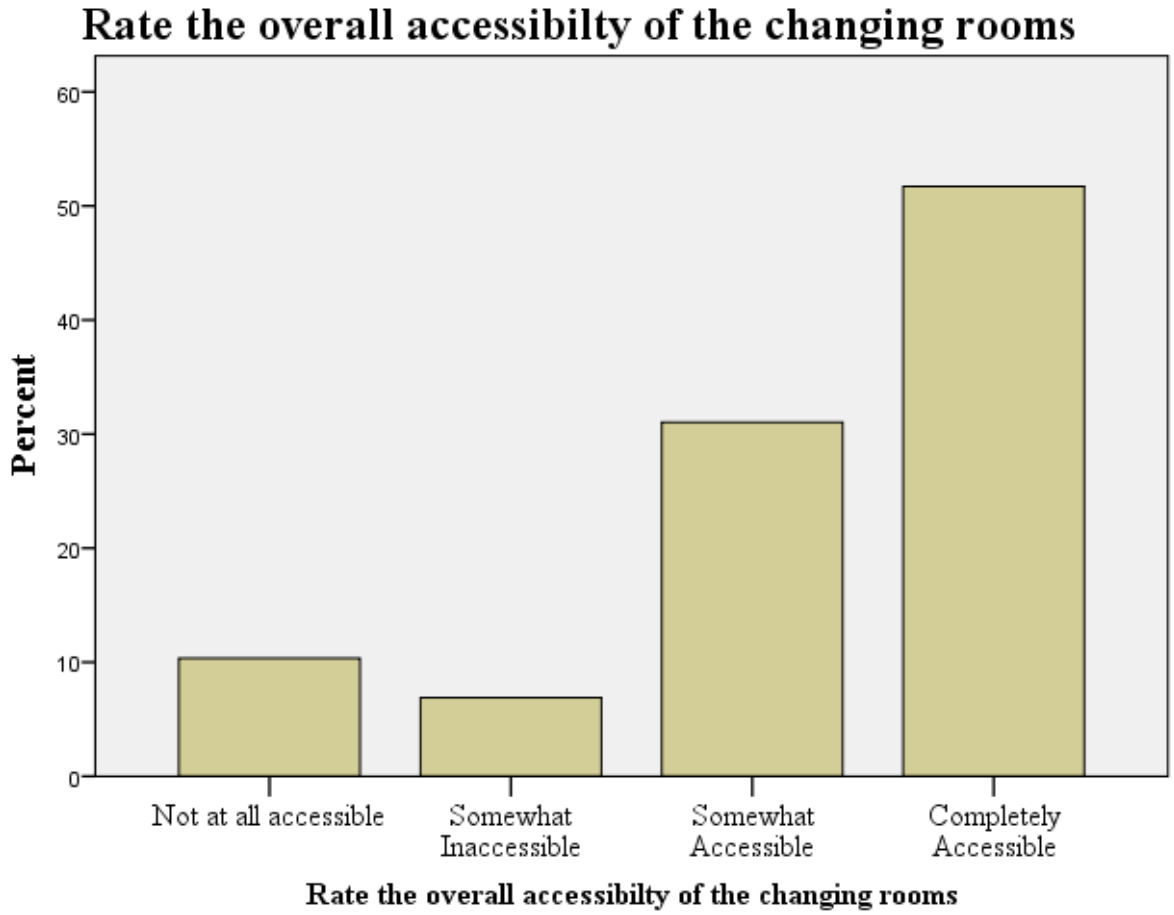
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	3	10.0	10.0	10.0
	Yes	27	90.0	90.0	100.0
	Total	30	100.0	100.0	

Does the facility have changing rooms?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	100.0	100.0	100.0

Rate the overall accessibilty of the changing rooms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all accessible	3	10.0	10.3	10.3
	Somewhat Inaccessible	2	6.7	6.9	17.2
	Somewhat Accessible	9	30.0	31.0	48.3
	Completely Accessible	15	50.0	51.7	100.0
	Total	29	96.7	100.0	
Missing	System	1	3.3		
Total		30	100.0		



Are there lockers that are accessible from a seated position?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	N/A	1	3.3	3.4	3.4
	No	1	3.3	3.4	6.9
	Yes	27	90.0	93.1	100.0
	Total	29	96.7	100.0	
Missing	System	1	3.3		
Total		30	100.0		

Are the routes leading from the changing rooms to other areas of the leisure centre free from obstacles?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	5	16.7	17.2	17.2
	Yes	24	80.0	82.8	100.0
	Total	29	96.7	100.0	
Missing	System	1	3.3		
Total		30	100.0		

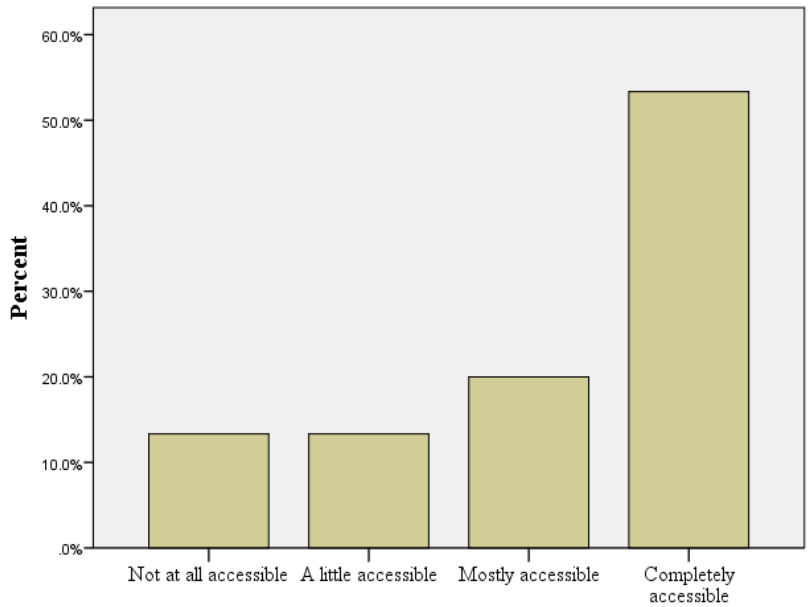
Shower

Does the facility have showers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	100.0	100.0	100.0

Rate overall accessibility of the facility's showers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all accessible	4	13.3	13.3	13.3
	A little accessible	4	13.3	13.3	26.7
	Mostly accessible	6	20.0	20.0	46.7
	Completely accessible	16	53.3	53.3	100.0
	Total	30	100.0	100.0	



Rate overall accessibility of the facility's showers

Have you ever heard of the National Disability Authority?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	12	40.0	40.0	40.0
	Yes	18	60.0	60.0	100.0
	Total	30	100.0	100.0	

Have you ever heard of The Disability Act 2005?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	9	30.0	30.0	30.0
	Yes	21	70.0	70.0	100.0
	Total	30	100.0	100.0	

Have you ever heard of CARA APA Centre?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	14	46.7	46.7	46.7
	Yes	16	53.3	53.3	100.0
	Total	30	100.0	100.0	

Have you ever heard of The Inclusive Leisure Centre Award by Active Ireland?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	17	56.7	56.7	56.7
	Yes	13	43.3	43.3	100.0
	Total	30	100.0	100.0	

Have you ever heard of Cork Sports Partnership?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	6	20.0	20.0	20.0
	Yes	24	80.0	80.0	100.0
	Total	30	100.0	100.0	

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