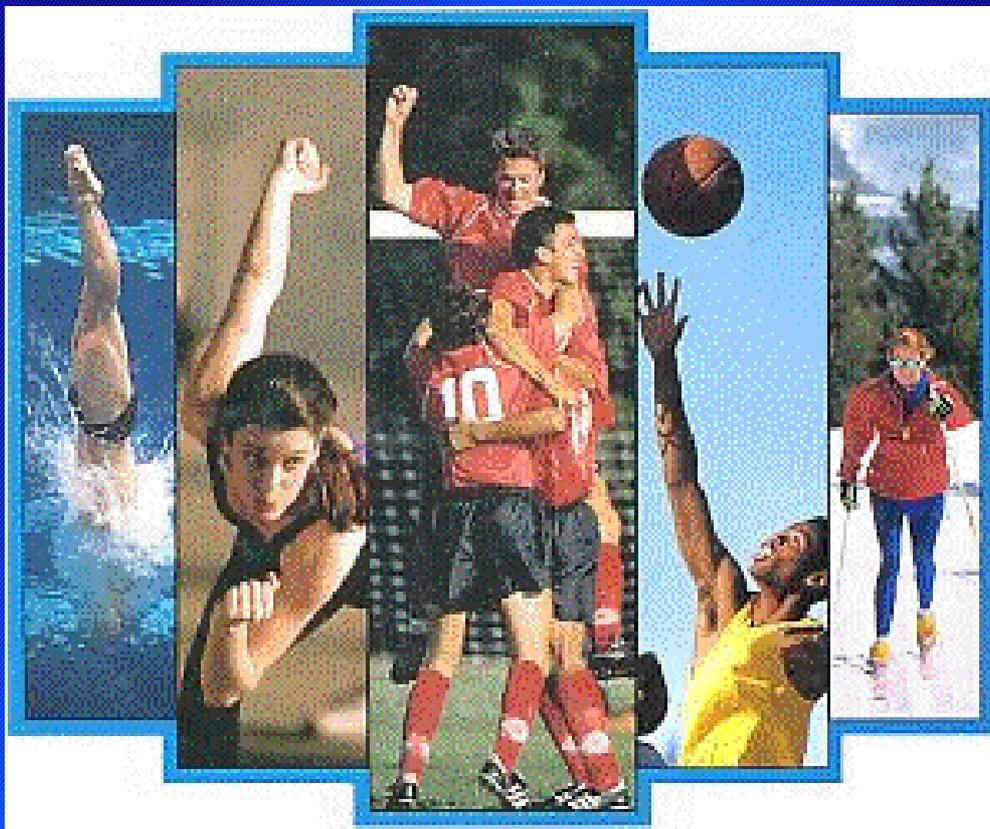


People with Physical and Sensory Disabilities, Participation Levels and Barriers to Physical Activity



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**People with Physical and Sensory Disabilities, Participation
Levels and Barriers to Physical Activity**

Report

By

**The Department of Public Health
Western Health Board**

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Executive Summary

People with disabilities can help establish a more productive life by participating in physical activity. Physical activity can help improve self-esteem in the person and increase integration opportunities for people with disabilities. This study aimed to establish baseline information on the involvement of people with disabilities in physical activity, the barriers they face and the reasons for their participation and non-participation.

A self-completion questionnaire was distributed to nine voluntary agencies in Galway, who then distributed the questionnaire to people between 18 and 65 on their databases. A second questionnaire was also sent to fitness instructors in six leisure centres in county Galway. The fitness instructors were asked to complete a questionnaire to ascertain if integration measures are adapted by leisure centres, the level of staff training in fitness instruction for people with disabilities and the methods used to increase knowledge of physical activity benefits.

The findings of the study can be summarised as follows:

- Ø Overall 54% of respondents said that they were regularly involved in some form of physical activity.
- Ø Most physically active respondents (29%) took part in physical activity at a fairly light level.
- Ø The most popular activity for men and women was walking 55%.
- Ø The main reason given for participation was "to reduce the effects of my disability" while the main reason not too participate was "due to my disability".
- Ø Only a quarter of those who were physically active believed they did enough physical activity.
- Ø 89% of respondents believed that being physical active could lead to them achieving health benefits.
- Ø The main benefit perceived by respondents was that physical activity "Maintains/improves muscle strength, endurance and flexibility".
- Ø Access was seen as the main barrier to participation for people with disabilities.
- Ø A large proportion (80%) of leisure centre fitness instructors said they had members who had a physical or sensory disability.

- Ø Only 20% of fitness instructors stated they had received training in adapted physical activity or physical activities training for people with disabilities.
- Ø Provisions were made in 60% of leisure centres for making exercising easier for people with disabilities, with 40% making no such provisions.
- Ø Only 14% of leisure centres had done something to encourage physical activity participation.
- Ø A small proportion (20%) of leisure centres had developed a partnership with a disability organisation.

A number of recommendations were made as a result of the study, to encourage and enhance further participation in physical activities for people with physical and sensory disabilities:

1. There is a need to provide more opportunities for individuals to participate in sports and activities, to increase the number of individuals who participate in physical activity.
2. All leisure centres should have an employee who is qualified to work with individuals with a physical or sensory disability in relation to exercise activities.
3. Access should be considered in the location and design of all new buildings and facilities open to the public.
4. The barriers, which were acknowledged in this study that affect people with disabilities should be addressed, and the effect that they have on participation should be lessened for people with physical and sensory disabilities.
5. Individuals must be made understand that they have to exercise regularly and at a specific intensity so they can experience the health benefits which can be achieved from the exercise they participate in.
6. There is a need for young people with disabilities, to be educated, encouraged and supported in becoming physically active.
7. There is a need to increase each individual's knowledge of exercise benefits so to help promote physical activity amongst participants.
8. Physical activity should be promoted through all national sporting bodies and national voluntary disability groups who can explain the benefits and improvements that can be achieved from physical activity participation.
9. Leisure centres should develop partnerships with local voluntary disability groups so that they can encourage physical activity participation and provide an integrated setting, which would allow for people with disabilities to enter into an integrated community.

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1. Introduction

1.1 Population

A 1996 report estimated that there are 360,000 Irish people or 10% of the Irish population with a disability. This estimate is below that of most other populations across the European union, which are estimated to be 12.5% (Commission on the Status of People with Disabilities 1996) and across other nations of the world.

It is suggested that half of all people with disabilities in the Republic of Ireland are aged sixty and over (Commission on the Status of People with Disabilities 1996). There is no population figure for people with physical and sensory disabilities at the moment available for the Western Health Board as they are presently developing the National Physical and Sensory Disability Database. The total population of the Western Health Board region at the moment is of more than 352,000 people (Western Health Board 1999) and of this Galway's population is 188,854 (Western Health Board 1999). So by taking the estimate that is generally used (10%) the population of people with physical and sensory disabilities is approximately 35,000 people.

1.2 Physical Activity Definition

Physical activity can be defined as -

" Physical activity is a spectrum extending from occupational physical activity to high performance sport" (The Physical Activity Group 2000).

This definition was used in this study to decide on what areas of physical activity were accepted.

1.3 Benefits of Participating in Physical Activity

The National Centre on Physical Activity and Disability believes that exercise is for everybody. Having a disabling condition does not mean that you cannot be physically active.

The social and psychological benefits of exercise and sport participation are not exclusive to the able bodied and there can be major improvements in self-esteem and social integration through an active lifestyle (Webborn 2000). The benefits of being active are enormous for individuals with a disability, and society as a whole, while prolonged physical inactivity is associated with long term risks of disease in people with or without a disability.

Physical activity has been shown to extend life by up to two and a half years, compared with a sedentary lifestyle (Director of Public Health, Southern Health Board, 1996).

For people with a disability it is important to keep physically active as it can lead to positive effects for a person with a disability. Physical activity can help reduce declines in muscle strength, power, endurance and flexibility that people with physical and sensory disabilities may suffer from (Health Education Authority 1998).

A number of groups and reports over the years have stressed the importance of physical activity. The Cardiovascular Health Strategy Group for example (Department of Health and Children 1999) emphasised the importance of regular physical activity in the prevention of cardiovascular disease. The recommendation from the Surgeon General is that everyone should be moderately active for 30 minutes a day preferably every day of the week, this is all that is needed to achieve the benefits of physical activity (Centres for Disease Control and Prevention, 1996).

Comprehensive research has shown there to be many health benefits from regular physical activity, including:

- Better health.
- Puts you in a positive mood,
- Helps control weight,
- Gives you more energy,
- Helps you relax and sleep better,
- Helps keep your blood pressure levels healthy,
- Helps reduce stress, depression and anxiety,
- Enhances your self-esteem and self-confidence,
- Helps keep your cholesterol levels healthy,
- Builds stronger muscles and bones,
- Better posture and balance.

(Health Promotion Unit, 2001)

1.4 Participation and Inclusion

It is important for a person with a disability to become involved in physical activity, as they generally lead a more sedentary life (Irish Sports Council, 1999) compared to the general public.

In the European Charter for Sport for All: Disabled People it recommended that "sport for all" should include individuals with disabilities because, (1) they have the same rights to sport as non-disabled persons, (2) sport adds to the quality of life, (3) athletes with disabilities can compete on the elite level, and (4) persons with disabilities receive both physiological and social benefits from participation (Council of Europe, 1986).

Participation in sport is not essential, but it is important that people with disabilities are encouraged to remain physically active (Webborn, 2000). It has been found that the more active a person was in early life the more frequently they continued with or returned to sport and recreation later (Health Education Authority, 1997).

The commission on the status of people with disabilities 1996 indicated that 20,800 individuals with a disability were participating in organised sporting clubs/events. This figure represents 6% of the total population of people with a disability, while 53% of the able bodied population participate in physical activity and in the summer months this figure rises to 60% participation (Department of Health and Children 1996).

Participation in exercise has also a role to play in rehabilitation and supporting social contacts, and this can provide people with disabilities with an outlet to enjoy themselves.

People with a disability traditionally participate in sport and active leisure within a disability environment i.e. Special Olympics organisation or Paralympics group and not in an everyday integrated situation. This situation is being tackled in Ireland through the Department of Equality and Law reform "equal participation". This programme commits the government to take specific action to end discrimination and to ensure equal opportunity for participation by all people in Irish life.

A key challenge identified by the Irish Sports Council is the need to promote social inclusion and equity and widening the accessibility of sport to all (Irish Sports Council 1999).

1.5 Barriers Faced in Physical Activity Participation

There are many barriers both intrinsic and environmental, faced by people with disabilities when participating in physical activity. The Allied Dunbar Study 1992 identified a number of barriers that faced adults in the general population who participated in physical activities and these included motivation, availability and time, these are barriers that are also faced by people with physical and sensory disabilities.

Intrinsic barriers include not having knowledge about the benefits of physical activity. There is very little information available to people with disabilities about the benefits of activity for their main condition or its potential in preventing secondary complications occurring. This lack of knowledge can lead to uncertainty occurring for people with disabilities as to whether physical activity is beneficial or harmful to the persons condition (Health Education Authority 1998).

People with disabilities also face the barrier of their own attitude where they may feel frustrated about lost abilities together with embarrassment and loss of dignity in front of others participating in the activity (Health Education Authority 1998).

According to the Department of Education (1997) the main barriers faced by people with disabilities were the attitudes of others, inaccessibility, transport, communication and finance. Additional barriers included the lack of coaches/trainers and family. In relation to participation in exercise and physical activity, the attitudes of service providers was also identified as a problem, in that it was perceived that they were often ignorant of the requirements of people with physical and sensory disabilities.

Inaccessibility to facilities is an obstacle that hinders participation of people with a physical or sensory disability, as often buildings are not designed to accommodate people with physical and sensory disabilities, i.e. ramps, doors, changing facilities etc. The Building Regulation law that came into effect on June 1st 1992 now covers this barrier and all buildings are supposed to comply with these regulations.

Transport is another major barrier as many people with disabilities do not have their own transport and as a result have to rely on public transport or someone else to bring them to the facility. This can be an inconvenience to both the person with the disability and those providing the transport.

Disabled adults are four times more likely to be officially unemployed (21%) as opposed to non-disabled people (5%) (Health Education Authority 1998), thus finance is a limiting factor in what individuals can spend on physical activities and leisure pursuits.

Other barriers identified include lack of qualified coaches and trainers who can train individuals or teams, due to the lack of training and experience with people with disabilities. This problem is being slowly rectified through the introduction of modules in relation to people with disabilities in coaching courses.

Families can also act as a barrier to participation, as they may not understand the benefits that physical activity can bring to people with disabilities, while also fearing that injury or accidents may occur while participating in sport.

1.6 Rationale of Study

People with physical and sensory disabilities can help establish healthier lifestyles if they include physical activity in their daily routines. Participation in physical activity includes numerous health benefits such as reducing or preventing cardiovascular diseases, reducing stress and general and physical and emotional well being (Centre for Disease Control and Prevention, 1996).

To date very little research has been conducted people with physical and sensory disabilities and physical activity. There is a need to examine the type of physical activity that are participated in, the level of access to facilities, the barriers they face to participation and their level of knowledge concerning the benefits of physical activity, and the reasons that prevent people with physical and sensory disabilities participating in physical activity.

It is hoped that this research can be used to provide baseline information on levels of physical activity and barriers to participation faced by people with disabilities. This can then be used in the future for developing intervention programmes that impact positively on participation of people with physical and sensory disabilities in physical activities.

1.7 Aim and Objectives of Study

1.7.1 Aim of Study

To discover the factors, which influence people with physical and sensory disabilities to participation in physical activities, and also to discover what is provided for them in leisure centres.

1.7.2 Objectives

The objectives of the study are to:

- š Discover which physical activities people with physical and sensory disabilities currently participate in.
- š Establish the average level of physical activity taken by people with disabilities.
- š Understand the reasons why people with disabilities participate or do not participate in physical activities.
- š Examine the knowledge regarding the benefits of participating in physical activity.
- š Identify barriers that stop people with disabilities from participating in physical activities.
- š Discover how people with disabilities feel physical activity service providers treat them.
- š Discover what leisure centres provide for people with disabilities.

2. Methodology

2.1 Introduction

The research methodology for the study comprised of the use of two questionnaires. The first questionnaire was for people with a physical or a sensory disability and was given out to the participants through voluntary disability organisations in Galway. The second questionnaire was given to qualified fitness instructors of leisure centres in Galway.

For both questionnaire participants were assured that all answers would be kept strictly confidential and reminded of the importance to answer all questions applicable to them.

The questionnaires were distributed to the voluntary disability organisations and leisure centres in April 2002.

2.2 Sample

2.2.1 Physical and Sensory Disability Sample

A total of five hundred and seventy three participants were sent questionnaires to answer and a total of 105 questionnaires were returned for analysis. This gave a response rate of 18%. The participants for the survey were accessed through the databases of Galway's voluntary disability organisations. These organisations work for the rights of people with physical and sensory disabilities.

Eleven voluntary organisations were contacted by telephone to request their approval for participation, nine organisations agreed to be involved in the study. The following organisations were involved;

- š Centre for Independent Living
- š Cheshire Foundation of Ireland
- š Enable Ireland
- š Irish Wheelchair Association
- š Multiple Sclerosis Society of Ireland
- š Muscular Dystrophy Ireland
- š National Association for Deaf People
- š National Council for the Blind of Ireland
- š National University of Ireland, Galway

When the organisations agreed to participate in the study they received a letter (appendix 1) explaining the study and what was involved including the aims and objectives of the study. A copy of the questionnaire (appendix 2) was also sent to allow them review the questionnaire. A follow up call was made to the organisations to arrange for the delivery of the questionnaires.

The questionnaire was delivered to the voluntary disability organisations, which then distributed them to their members. The members received a letter (appendix 3) explaining the study and were asked to answer the questionnaire and return them in the self addressed freepost envelope to the Department of Public Health.

2.2.2 Leisure Centre Sample

The managers for six Galway leisure centres were contacted by telephone to request approval for their fitness instructors to take part in this study. All of the managers gave their approval for the fitness instructors to participate. A total of thirty-one questionnaires were sent out to the fitness instructors to complete.

The following leisure centres were involved in the survey;

- š Crunch Fitness
- š Kingfisher Leisure Club
- š Oranmore Lodge and Leisure Club
- š Peak Physique
- š Quality Hotel and Leisure Centre
- š Shannon Oaks Hotel and Country Club

Each of the leisure centres received a letter (appendix 4) explaining the study. The questionnaires (appendix 5) were delivered to the leisure centres and given to the staff to complete.

The questionnaires were used to discover whether leisure centres had members who had a physical or sensory disability, if there were integrated exercise classes available for members to participate in. Also had fitness instructors received any training in relation to physical activity and exercise for people with physical and sensory disabilities and had any partnerships been developed between leisure centres and voluntary disability organisations. The participants were asked to return the questionnaires in the self addressed freepost envelope to the Department of Public Health. A total of fifteen questionnaires were returned for analysis giving an overall response rate of 48%.

2.3 Questionnaire

The questionnaires consisted of a mixture of multiple choice and open-ended questions. The questionnaires were designed to elicit various types of information as documented in the following sections:

2.3.1 Survey of People with a Physical and Sensory Disability

- š Age and gender differences
- š Disability type
- š Participation in physical activity
- š Activities participated in
- š Reasons for participation and non-participation in physical activity
- š Knowledge of the benefits of physical activity
- š Barriers faced in attempting to participate in physical activities

2.3.2 Survey of Leisure Centre Fitness Instructors

- š Membership of people with disabilities in leisure centres
- š Degree of integration of disabled persons and able bodied persons in physical activities
- š Degree to which the benefits of exercise are explained to people with disabilities
- š Availability of experienced fitness instructors in adapted physical activity.
- š Partnership development with local organisations

2.4 Statistical Methods Used

A number of statistical tests were used to analyse the questionnaires. For normally distributed numerical data Independent T tests were used. Chi squared tests were used to analyse non-parametric data. Statistical differences were tested at the 0.05 and 0.01 levels of significance.

3. Survey of People with Physical and Sensory Disabilities

3.1 Introduction

The voluntary disability organisations distributed the questionnaires to people on their databases who lived in County Galway. The participants were asked about themselves, their participation in physical activity, what activities did they participate in and why they participated. Further questions related to the benefits from and barriers to physical activity. There was a response rate of 18% for this questionnaire, with 105 out of 573 questionnaires being returned.

3.2 Socio-Demographic Profile

From the returned questionnaires the gender breakdown was 40% male and 60% female. A total of 71% of respondents lived in rural Galway compared to 29% living in the urban districts of Galway.

Of the respondents 70% had a physical disability, 7% had a sensory disability and 20% had both a physical and a sensory disability.

The questionnaire was administered to people ranging from 18-65 years of age. **Table 3.1** gives the overall breakdown of the participant's ages in the study. Most participants (32%) were aged between 45-54 and the average age of participants was 43 years.

Table 3.1 Age profile

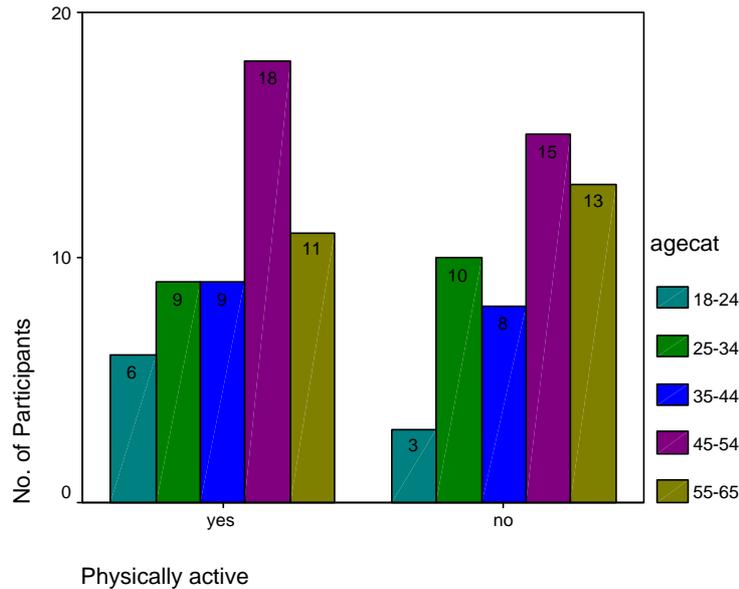
Age	%
18-24	9
25-34	19
35-44	17
45-54	32
55-65	23

3.3 Active or Inactive

When asked if respondents participated in physical activity, 54% of respondents stated that they did take part in some form of physical activity. When analysed it was shown that 50% of males and 57% of females were physically active. (This was proven to be not statistically significant (Pearsons Chi-Square $p > 0.05$)).

Figure 3.1 shows the overall breakdown into age groups of those who do and do not participate in physical activity. It shows that respondents between the ages of 18-24 years are the most physically active (67%) although this age group also has the smallest number of respondents in the survey. The group with the highest number of respondents is the 45-54 year age group 55% participating in physical activity. The highest percentage of non-participants was found in the 55-65 year age group (54%).

Figure 3.1 *Participants who are Physically Active or Inactive*

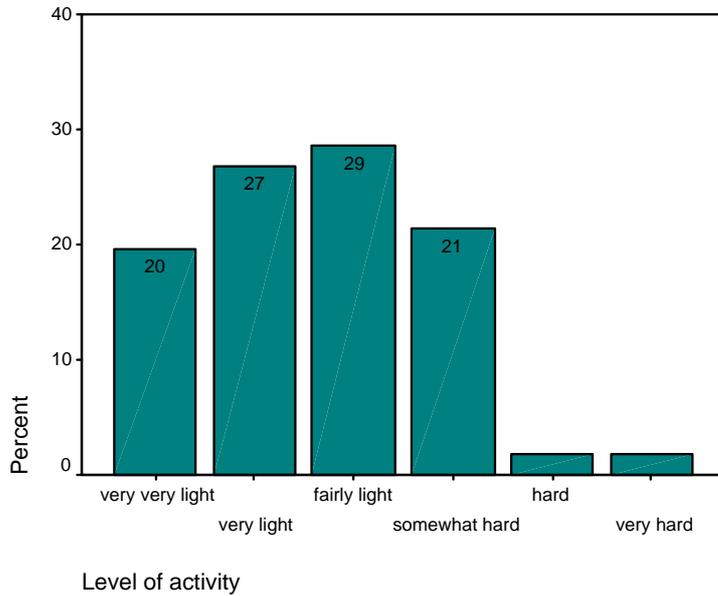


3.4 Intensity Levels for Participation in Physical Activities

The participants were asked at what level of intensity/effort they participated in their chosen activity/activities. This was measured using the Borg scale of reference, which is a popular and tested method of measuring intensity levels and it facilitates reliability and comparison. Participants were given a scale of seven levels to identify at which level they participated in physical activity. The scale levels incorporated all intensity levels ranging from very very light to somewhat hard to very very hard.

Figure 3.2 shows the percentage breakdown of each intensity levels worked at when respondents participated in physical activity. Overall most individuals worked at a fairly light level (29%), which is considered to be the average level of intensity. The next most popular level to work at was very light (27%). No respondent stated that they worked at the highest level of very very hard. There was no significant difference in Borg scale scores/intensity levels for males and females (Independent T test, $p > 0.05$).

Figure 3.2 Intensity levels when participating in physical activities



3.5 Time Spent Being Active

Table 3.2 shows the percentage of days per week spent being active by individuals. Of those who participated in sport and physical activity 11% were active once a week while 10% stated they were active daily. On average respondents who were physically active were active for 3.67 days per week. There was no significant difference between males and females and the number of days per week spent being physically active (Independent T test, $p > 0.05$). The average time spent by individuals participating in physical activities was found to be 89 minutes a week.

Table 3.2 Number of days active per week

No. Days	%	No. of People
1	21	11
2	17	9
3	11.5	6
4	13.5	7
5	15	8
6	2	1
7	19	10

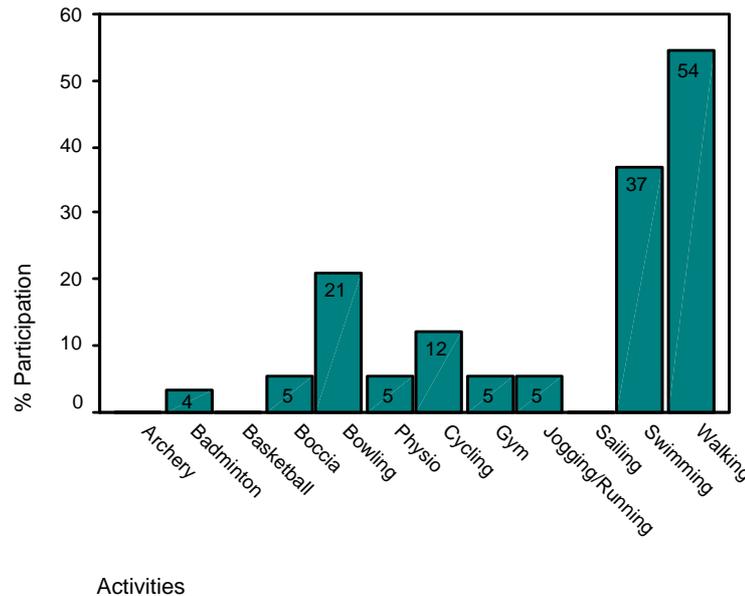
3.6 Activities Participated in

Figure 3.3 shows the overall participation numbers that took part in each physical activity. Overall walking was the most popular activity with 54% of respondents citing this as the form of activity they took. There was a considerable difference

between walking and the next most popular activity swimming (36%) and then bowling (21%).

The most popular activities that were participated in by physically active males were walking (43%), swimming (33%) and bowling (19%) and similarly for females the top three were, walking (64%), swimming (39%) and bowling (22%). However as can be seen higher percentages of females participated in these activities

Figure 3.3 *Most participated in activities*



*Multiple responses, therefore percentages may not add up to 100%

3.7 *Reasons for Participation and Non-Participation in Physical Activity*

The participants were given a list of common reasons why people participate in physical activity and were asked to rank the three most important reasons for them, as to why they participated in physical activity. They were also allowed to state if there was any other particular reason for them to participate in physical activity. Participants who did not take part in physical activity were also asked to rank their three most important reasons to them, why they did not participate in physical activity.

Table 4.3 shows the most popular reasons for participating in physical activity as ranked by the respondents. The main reasons for participation were "To reduce the effects of my disability" (30.6%), "To keep fit"(22.9) and "I enjoy physical activity" (20.9%).

Table 3.3 *Reasons for participation in physical activity*

Reason	Rank 1		Rank 2		Rank 3		Total	
	No	%	No	%	No	%	No	%
To keep fit	18	17.1	3	2.9	3	2.9	24	22.9
To lose weight	12	11.4	3	2.9	3	2.9	18	17.2
I enjoy physical activity	12	11.4	2	1.9	8	7.6	22	20.9
Because my friends do	2	1.9	3	2.9			5	4.8
To meet new people	4	3.8	6	5.7	1	1.0	11	10.5
To occupy my time	8	7.6			3	2.9	11	10.5
To help relax myself	5	4.8	5	4.8	1	1.0	11	10.6
To get outdoors	12	11.4	1	1.0	7	6.7	20	19.1
To reduce the effects of my disability	24	22.9	5	4.8	3	2.9	32	30.6

* Multiple responses, therefore percentages may not add up to 100%

Table 3.4 shows the breakdown of the rankings given for each reason associated with non-participation in physical activity. The main reasons why participants did not take part in physical activities was "Due to my disability" (31.4%) and followed by "No access to facilities" (21%) and "I don't have a personal assistant" (15.3%).

Table 3.4 *Reasons for Non-Participation in Physical Activity*

Reason	Rank 1		Rank 2		Rank 3		Total	
	No	%	No	%	No	%	No	%
I don't enjoy sport	4	3.8	1	1.0	1	1.0	6	5.8
I have no time	4	3.8			2	1.9	6	5.7
None of my friends play sport	1	1.0					1	1.0
It is too expensive	5	4.8	2	1.9			7	6.7
I have no transport	5	4.8	4	3.8	5	4.8	14	13.4
I don't know where to go	6	5.7	2	1.9	3	2.9	11	10.5
I am not fit enough	10	9.5	5	4.8	1	1.0	16	15.3
Due to my disability	27	25.7	4	3.8	2	1.9	33	31.4
I am not motivated to participate	2	1.9	1	1.0	2	1.9	5	4.8
I don't have a personal assistant	5	4.8	8	7.6	3	2.9	16	15.3
No access to facilities	13	12.4	2	1.9	7	6.7	22	21

* Multiple responses, therefore percentages may not add up to 100%

3.8 Achieve Enough Physical Activity

Of the respondents who stated that they were physically active at present, 25% of participants believed that they did enough physical activity, while 63% of participants thought they did not do enough physical activity at the moment. The remaining 12% did not know.

3.9 Health Benefits of Physical Activity

Nearly 89% of participants believed that they could achieve some health benefits from participating in physical activities while 11% did not think they could achieve any health benefits from participating in physical activity at all.

3.10 Perceived Benefits to Physical Activity Participation

Table 3.5 shows how the respondents ranked the perceived benefits of physical activity that were listed for them in the questionnaire. The main benefit put forward by over half the respondents was that physical activity "maintains/improves muscle strength, endurance and flexibility". This was by far the most popular benefit seen by respondents to physical activity participation. To help reduce stress/anxiety and to meet new people were the next two most popular benefits that people with disabilities thought that they would benefit from by being involved in physical activity.

Table 3.5 Perceived Benefits of Physical Activity

Reason	Rank 1		Rank 2		Rank 3		Total	
	No	%	No	%	No	%	No	%
Meeting new people	24	22.9	3	2.9	5	4.8	32	30.6
Getting fit	19	18.1	5	4.8	7	6.7	31	29.6
Reduce risk of coronary artery disease	7	6.7	7	6.7	3	2.9	17	15.3
Reduce risk of high blood pressure	6	5.7	3	2.9	3	2.9	12	11.5
Reduce risk of secondary complaint	2	1.9	4	3.8	1	1.0	7	6.7
Maintains/improves muscle strength, endurance and flexibility	43	41	5	4.8	7	6.7	55	52.5
Helps control weight	8	7.6	10	9.5	4	3.8	22	20.9
Helps improve self esteem	10	9.5	3	2.9	7	6.7	20	19.1
To be outdoors	11	10.5	3	2.9	4	3.8	18	17.2
Gives you more energy	11	10.5	6	5.7	6	5.7	23	21.9
Helps reduce stress/anxiety	15	14.3	8	7.6	11	10.5	34	32.4

* Multiple responses, therefore percentages may not add up to 100%

3.11 Main Barriers Faced

There are several barriers to physical activity that obstruct people with disabilities from participating in physical activities in their localities. **Table 3.6** illustrates the barriers that were faced most frequently by people with disabilities when attempting to participate or participating in physical activity. The most frequently cited barrier was access (41%) followed by facilities (38.1%). No teams and communication barriers were the least confronting barriers faced by respondents to physical activity.

There was also the opportunity for respondents to describe other perceived barriers which they face. The other barriers that they identified included lack of competitions to enter, limited availability of physiotherapists and their own disability. Some people stated they had experienced no barriers when participating in activities.

Table 3.6 *Barriers to participation*

Reason	Rank 1		Rank 2		Rank 3		Total	
	No	%	No	%	No	%	No	%
Transport	21	20	6	5.7	8	7.6	35	33.3
Expense	15	14.3	7	6.7	5	4.8	27	25.8
Access	23	21.9	11	10.5	9	8.6	43	41
Facilities	21	20	10	9.5	9	8.6	40	38.1
Communication Barriers	5	4.8	4	3.8	1	1.0	10	9.6
Attitude of others	5	4.8	2	1.9	7	6.7	14	13.4
Your own attitude	10	9.5	4	3.8	6	5.7	20	19
Inappropriate equipment	7	6.7	4	3.8	2	1.9	13	12.4
No coaches/trainers	11	10.5	6	5.7	3	2.9	20	19.1
No personal assistants	26	24.8	3	2.9	6	5.7	35	33.4
No teams	5	4.8	2	1.9	3	2.9	10	9.6

*Multiple responses, therefore percentages may not add up to 100%

3.12 *Treatment of People with Disabilities by Leisure Service Providers*

Table 3.7 shows how people with disabilities perceive they are treated by leisure service providers and areas that need improvement within this sector. Of those who returned the questionnaire, comments were received by 79% of individuals. The highest percentage of cases was from respondents that found that the leisure service provided to them was good and had no complaints about their treatment (31%). The next most popular comment (28%) was from those with no experience of leisure centres and don't know about the way they are treated. Another 10% believed there was a need for more training and knowledge improvement for service providers in relation to people with physical and sensory disabilities.

Table 3.7 *How people with disabilities felt leisure service providers treated them.*

Reasons	No	%
Those who feel they are unwanted or looked upon badly.	7	8%
The service provided is good	26	31%
Need for better education and knowledge of disabilities to be provided.	8	10%
Don't know and those with no experience	23	28%
Treated as normal like any other member	4	5%
Not equipped to cater for disabled people	5	6%
Not wheelchair friendly	1	1%

≠# Multiple responses, therefore percentages may not add up to 100%

3.13 *Additional Comments*

Respondents were given the opportunity in the questionnaire to give their opinions on changes they would like to increase opportunities for people with physical and sensory disabilities to participate in physical activity. Comments were received from 75% of those who completed the questionnaire. The comments made by the

respondents are shown in **Table 3.8**. The main comment given was that people with disabilities would like more facilities available to them (27%), the need for a personal assistant or coach was the next most popular comment (17%).

Table 3.8 *What people with disabilities would like to see occur so that more opportunities would be available for them in physical activities.*

Reasons	No	%
Improve or provide better access	12	14%
Increased information and communication about physical activity	4	5%
Need for personal assistants or qualified coaches	14	17%
Improved co-ordination and work between voluntary agencies, health boards and the government in areas affecting people with disabilities.	7	12%
The availability and provision of facilities for people with disabilities to use	22	27%
Appropriate and available transport to use	13	16%
Need for more training and educating of people in relation to disabilities	6	7%
More activities	5	6%

3.14 Summary

Overall 54% of respondents participate in some form of physical activity and most take part at a fairly light (29%) or very light (27%) level. Walking (54%) is the most participated in activity followed by swimming and bowling, this was for both males and females alike. On average participants spent 89 minutes involved in a physical activity a week. The main reason for participating in physical activity was ranked as "To reduce the effects of my disability" and the main reason not to participate in physical activity was ranked as "Due to my disability".

Most respondents (89%) believed that a person could achieve health benefits from physical activity participation. The main perceived benefit as ranked by respondents was to "Maintain/Improve muscle strength, endurance and flexibility" (52.5%). The main barrier faced by people with disabilities when attempting to take part in physical activity was seen to be access to facilities (41%).

The respondents also felt the service they received from leisure service providers was good (31%) and that they were not treated any different to able-bodied people. The change respondents would like to see to happen would be that more facilities are available for them to use (27%) in their locality.

4. Survey of Leisure Centre Fitness Instructors

4.1 Introduction

All the fitness instructors who worked in the participating six leisure centres were asked to complete a questionnaire to ascertain if integration measures are adapted by leisure centres, the level of staff training in fitness instruction for people with disabilities and the methods used to increase knowledge of physical activity benefits. The response rate of this questionnaire was 48%, with 15 out of 31 questionnaires returned.

4.2 Demographic Profile

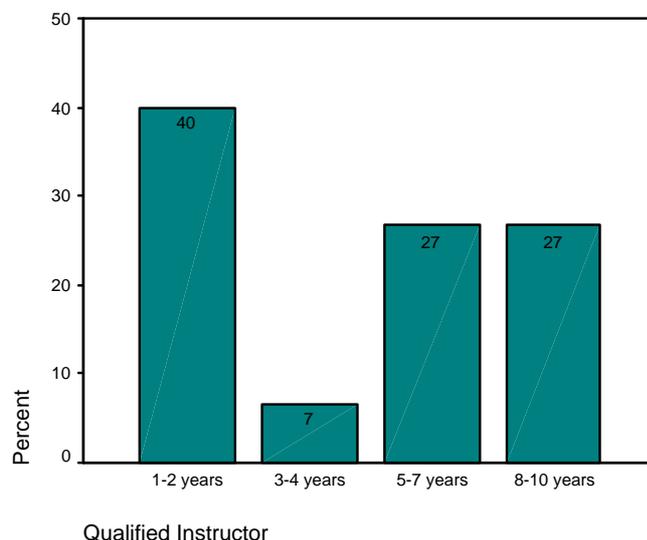
Of the returned questionnaires 7 were from males and 8 from females. Their ages ranged from the youngest at sixteen to the oldest at thirty-six. **Table 4.1** shows the age breakdown of all the fitness instructors. The average age of the instructors was 25.47 years. This demonstrates that it is mainly young adults who work as fitness instructors in the leisure industry.

Table 4.1 Age Profile

Age	No. of people	%
15-19	3	20
20-24	3	20
25-29	7	47
30-34	1	6.5
35-39	1	6.5

Figure 4.1 shows that 40% of fitness instructors have only 1-2 years of experience. On average fitness instructors had 3.4 years experience in the industry.

Figure 4.1 Years of experience



4.3 Integration and Inclusion Measures

Respondents were asked to state whether any people with disabilities were members of their leisure centre and 80% responded that they did have members who had a physical or sensory disability.

Those who had members with a disability were asked if these members participated in integrated or separate exercise classes, 58% stated that their facility provided integrated exercise classes, while the other 42% stated that they had separate classes for people with disabilities.

Table 4.2 lists the methods fitness instructors used to make exercise classes more open to participation for people with disabilities. Most instructors stated that they modified or adapted the exercises and movements they taught in their classes. Fitness instructors who did not give exercise classes stated that they made out suitable gym programmes for the client.

Table 4.2: *Methods used for adapting exercise classes*

	No	%
Providing modified or adapted versions of exercises/movements.	4	27
By planning out suitable gym programmes for the client's benefit.	3	20
Do not give classes.	2	13

4.4 Specialised Training

When asked if they had received or taken part in courses or training in adapted physical activities, only 20% of the fitness instructors stated that they had received training in relation to adapted physical activity or physical activity training for people with disabilities. This contrasts with 60% of respondents who believe that it is necessary for a fitness instructor to receive training in physical activity practices. This is to enhance the quality of instruction, gym programmes and understanding of disability conditions, which would be necessary for them to work with a person who has a disability.

Table 4.3 indicates the reasons why they believe that they should be trained to deal with people with disabilities. The main reason was to be more efficient and knowledgeable when providing exercises and programmes to the clients.

Table 4.3 *Why fitness instructors believe they need specific training*

	No	%
To increase the instructors capacity to develop suitable practices and programmes that will enhance the persons use of the leisure facility.	3	20
So that everybody who wishes to use the facility or take part in the activities or classes can.	3	20
To be able to accommodate those who may have an injury and be unable to participate to they're fullest ability.	2	13
That people with disabilities are accepted into the leisure centre environment and are treated the same as everyone else and it is made sure that they are enjoying themselves.	4	27

4.5 Encouraging Physical Activity Participation

The fitness instructors were asked if the leisure centres they worked in actively encouraged people with disabilities to attend their leisure centre. Just 14% of leisure centres stated that they do something to encourage participation amongst people with physical and sensory disabilities in physical activities.

In terms of developing partnerships 20% of respondents stated that their leisure centre had developed partnerships with local voluntary organisations and school for children with disabilities, which would then allow them access to the use of the leisure centre facility.

4.6 Methods to Increase Knowledge of Physical Activities Benefits

The respondents were asked how they would increase the knowledge in relation to the benefits that can be achieved from physical activity amongst people with a physical or sensory disabilities. **Table 4.4** shows the comments made by the fitness instructors in relation to how they dealt with this matter. The most popular method stated by fitness instructors was to introduce and increase the fun aspect of exercise to people with disabilities and allow them enjoy their activities more. Other methods put forward included providing handouts and leaflets to explain exercises and dietary requirements for individuals and explain to carers and personal assistants how involvement in physical activity can be of benefit to people with disabilities.

Table 4.4 *Methods to increase knowledge of physical activity benefits*

	No	%
Provide leaflets and picture handouts to clients for exercises and dietary requirements.	2	13
To include the teaching of health benefits from physical activity as part of the training.	2	13
To increase the fun and enjoyment aspect of exercise for people with disabilities	3	20
To provide training courses and talks for carers and assistants so they will understand the need of physical activity participation.	2	13
Provide consultation and monitoring of clients progress	1	7

4.7 Making Exercising Easier for People with Physical and Sensory Disabilities

Of the respondents, 60% stated that their leisure centre provided some method to make exercise easier for people with a disability, which would then allow them to take part in physical activity. **Table 4.5** shows the methods employed by leisure centres to make exercising easier for people with disabilities. The method put forward most often was that demonstrations were shown more clearly and carefully to participating individuals.

Table 4.5 *Comments by instructors to how exercising was made easier.*

	No	%
Provide all necessary facilities for people with disabilities and also having easy access/entrance.	2	13
Provide a discount for those who use the facility between certain times.	1	7
Providing exercise classes/programmes	2	13
Introducing clients to natural therapies to encourage participation, well-being and health benefits.	2	13
Nothing provided specially for them yet.	1	7
Demonstrations are done more clearly and carefully	3	20
Staff provides a friendly, helpful and encouraging atmosphere to exercise in.	2	13

4.8 Summary

Of the participating leisure centres 80% had people with a physical or sensory disability as a member of their facility. Integrated exercise classes were available in 58% of leisure centres and 73% of fitness instructors stated that it was important for their leisure centre to have an integrated setting between its members. It was acknowledged by 60% of fitness instructors that being appropriately trained in relation to physical activities for people with disabilities was necessary although only 20% of respondents did have training in this area. Partnerships had been developed between 20% of the participating leisure centres and local voluntary disability organisations. Fitness instructors also believed that the best way to increase the knowledge of benefits was to increase the fun aspect of exercise when instructing to people and they also believe making demonstrations more clearer and understandable as the best way to make participation easier.

5. People with Physical and Sensory Disabilities Discussion

5.1 Introduction

The aim of this section of the study was to examine the participation of people with physical and sensory disabilities in physical activity while also examining what activities they took part in and the reasons they did or did not participate in physical activity. The study also discovered what benefits they received from physical activity participation and the barriers that they faced in becoming physically active.

5.2 Physical Activity Participation

Overall 54% of respondents reported that they were regularly involved in some form of physical activity. This result, whilst similar to what was found in the National Survey of Involvement in Sport and Physical Activity (1996) suggests there is considerable room for improvement, as 46% did not do any physical activity. Of those who did participate in physical activities only 25% of them believed they participated in enough physical activity to be of benefit to them, while 63% stated they did not participate in enough physical activity at all. These findings highlight the need for people with disabilities to increase their level of physical activity.

5.3 Intensity Levels and Days Spent Active

Of the people who were physically active 29% took part at a fairly light intensity level and 27% at a Very light level. These figures are below the average level of intensity of somewhat hard found in "A National Survey of Involvement in Sport and Physical Activity" (1996). However participating in exercise at these levels participants are still able to achieve health benefits. The report of the Surgeon General (1996) indicates that the level of physical activity need not be strenuous to provide health benefits.

Of the respondents, who stated they were physically active, 10% said they were active daily while 11% of participants were active once a week. It was found that on average those who were physically active spent 89 minutes a week and 3.67 days per week participating in physical activity which is below the national recommendation for physical activity of 20-30 minutes of aerobic exercise 4-5 times a week (Department of Health, 2000). Thus, while the intensity of activities overall is sufficient, the frequency of activities needs to be increased to maximise the health benefits received.

5.4 Physical Activities Participated in

The participation rates in the different physical activities varied considerably, with there being a limited number of activities chosen by respondents compared to other studies involving physical activity participation. This may indicate that people with disabilities experience barriers to participation in physical activity (see section 5.7). The most popular activity for both men and women was walking with 55% of respondents taking part in this form of activity. This finding has been found in other Irish surveys, (Consumer Attitudes to Physical Activity, Body Weight and Health 1999). Swimming (36%) was next most popular activity for men and women with a higher percentage of women again participating in this activity.

The respondents in the youngest age group 18-24 had the lowest proportion of respondents involved in physical activities of all the age groups. This is somewhat of a contrast to the general population where those between 18-24, are the most active. This is a finding which has been found in Irish and International surveys, where it was found that over 85% of respondents between 18-24 were physically active (Health Promotion Unit, 1996). In New Zealand the Hillary Commission (1998) found that 93% of people in this same age group participated in sporting physical activities.

There is a need for young people with disabilities, to be educated, encouraged and supported in becoming physically active. Emphasis should be placed on increased opportunities made available to young people to take part in activities of their choice, so they can experience new sports and activities that they may enjoy but usually would not get the chance to. By participating in exercise, people actually build stamina that makes the demands of daily living easier thus leaving extra energy at the end of the day for additional social activities (Physical activity and Fitness research, 1999).

5.5 Reasons for Participation and Non-Participation

The main reason given why people participated in physical activity was "to reduce the effects of my disability" (31%) and "to keep fit" (23%). This suggests that people with physical and sensory disabilities realise that through physical activity participation they can achieve health benefits from being physically active and improve their quality of life. This may also increase the likelihood of their continued participation in physical activity because they understand that it can improve their health in the long term. It also provides social, educational and recreational opportunities for people with a disability.

Social reasons were also given for participation and included to "meet new people"; 11% of respondents ranked it as why they participated in physical activity. This demonstrates that sport can be an easy and relaxed method for integrating people with disabilities into our community and society.

The top reason given for non-participation in physical activity was "due to my disability" 31%. This was seen as a valid reason for non-participation although

Report by the Surgeon General (1996) indicates that physical activity need not be strenuous to provide health benefits. This shows that there is a need for individuals to receive further information so they can increase their knowledge in relation to physical activity and fitness and the benefits that can be achieved by taking part in regular exercise.

5.6 Benefits of Physical Activity

Individuals with disabilities, for the most part, can gain very similar benefits from physical activity as those accrued by able-bodied people (Physical activity and Fitness Research Digest, 1999). This was acknowledged by 89% of respondents, who believe that they can gain health benefits from participating in physical activity. Overall the most popular health benefit was that physical activity helped "maintain/improve muscle strength, endurance and flexibility", which is a considerable benefit for most people with disabilities. This was also noted in a health board strategy document in promoting increased physical activity (Physical Activity Group, 1997) as a main benefit from physical activity participation. To help "reduce stress/anxiety" was also seen as a popular benefit that people received from physical activity.

Other areas highlighted include reducing the risk of coronary artery disease (15%); high blood pressure (11.5%) and helps control weight (21%). All of these can prove to be detrimental to ones health if not looked after but the chances of them occurring can be greatly reduced by being involved in physical activities.

In addition, from the reasons given for participation in physical activity (see section 5.5), it is clear that most respondents also understand that by participating in physical activity they can reduce some of the effects of their disability. It has been shown that, keeping physically active can help to ameliorate, or even reverse, many of the effects of a disability (Health Education Authority, 1998).

5.7 Barriers to Physical Activity

There were several barriers, which seemed to affect respondents in many different ways. The main barriers that were found were access to facilities (41%) and facilities itself. Another major barrier, which affected people, was that individuals did not have a personal assistant to help them visit a leisure facility or to participate in an activity and this seemed to limit many of the respondents. Access is a basic right that should be considered in the location and design of all new buildings and facilities open to the public.

Some respondents commented that transport in general was a barrier that affected people from getting to places or facilities that would allow them to take part in physical activities.

This highlights the need to improve the level of access to facilities that is available to encourage people with disabilities to participate and join leisure facilities. Unfortunately there are so many extra barriers in the way, which stop people with disabilities from taking part in exercise and physical activity, that it becomes too much for some individuals to handle and that they don't bother participating at all.

5.8 Additional Comments

Although there are numerous leisure centres and leisure facilities throughout Galway, almost a third of respondents stated that they would like more facilities available that they could then participate in their chosen activity more often. This may be due to a lack of appropriate equipment, trained instructors, proper entrances and changing facilities.

Participants also stated that there is a need for increased training and education of fitness instructors and leisure service providers in physical activity participation and how it can affect people with physical and sensory disabilities. By having a wider knowledge of the effects of physical activity on people with physical and sensory disabilities fitness instructors and leisure service providers can provide improved classes, exercises and facilities which will be of benefit to these individuals.

6. Fitness Instructors Discussion

6.1 Introduction

The aim of this section of the study was to examine what facilities were provided and made available to people with physical and sensory disabilities in leisure centres. The questionnaire was used to determine if leisure centres have members who had a physical or sensory disability, what was done to allow for full participation of people with a disability. Additionally it sought to determine if fitness instructors received any training to work with people with disabilities.

6.2 Levels of Integration in Participating Leisure Centres

The majority (80%) of participating leisure centres reported that they had members who had a physical or sensory disability. This is a great boost to individuals with disabilities, if they know that there are members already in the leisure centre with a disability they may feel more comfortable using the facility for exercise purposes and also become more integrated into a new social setting.

For the individuals with a disability who were members in a leisure centre, it was found that 58% of leisure centres provide an integrated exercise class to take part in and this then allowed for further integration of individuals with disabilities into our society. However a high proportion (42%) didn't provide integrated exercise classes for individuals to take part in. It was also found that only 20% of leisure centres had developed a partnership with a voluntary disability group, which allowed for members of the voluntary group to come to the leisure centre and use the facility to exercise. Levels of integration could be increased further if more leisure centres provided mixed exercise classes or formed a partnership with a local voluntary group that would allow individuals come in to the leisure centre and use the facilities.

6.3 Specialised Training

Only a small proportion (20%) of fitness instructors had received training in relation to adapted physical activity or physical activities for people with physical and sensory disabilities. The lack of trained instructors was also an issue that was raised in the survey of people with physical and sensory disabilities (section 5.8). A number of college courses are now including modules in relation to physical activity and physical and sensory disabilities. It should be mandatory for all leisure centres and services to have an employee who is trained in working with individuals with a physical or sensory disability and can cater to all their exercise needs.

6.4 *Methods of Encouragement to Participate in Physical Activity*

Only 14% of participating leisure centres stated that they did something to encourage people with physical and sensory disabilities to take part in physical activity. This lack of encouragement from leisure centres could play a factor in determining whether people with physical and sensory disabilities go to or join leisure centres to exercise and whether they become more involved within their community. Without encouragement, the facility may be perceived as being "disability unfriendly" or as discriminatory against those with a disability.

6.5 *Methods used to Increase Knowledge of Physical Activity Benefits*

Fitness instructors stated that their preferred method of encouragement to increase the knowledge of a person with physical and sensory disabilities in relation to the benefits of physical activity was to emphasise the fun aspect of exercise. This would allow people to enjoy exercising more and become more accustomed to what is expected of them when exercising.

Fitness instructors believed in giving client's leaflets and handouts to explain about exercise and nutritional aspects of food, which they considered, would benefit them. They also believed it was important to educate the carers and personal assistants of people with physical and sensory disabilities about the benefits that can be achieved by participating in physical activity.

In order for an individual to increase their physical activity a behavioural change must occur which may be a lot harder for an individual to change than it seems. It can involve changing habits of a lifetime for the person. This behavioural change can be viewed through a theory called the Behaviour Modification Theory (Prochaska et al, 1994) which involves a number of stages of change that a person must go through before they have changed their behaviour. For this theory to be fully understood by the individual, the fitness instructors who work with them must understand the theory and be able to guide the individual through each stage and be able to support them when they might be struggling to continue. By the fitness instructors understanding the theory fully they will be able to identify what individuals are going through as they try to stay physically active.

The use of the above methods may help it encourage individuals to participate or to at least encourage people to contemplate changing their lifestyle which is a first step, however in order to successfully change ones lifestyle ongoing support and encouragement at an individual level is needed.

6.6 Method used to make Exercising Easier for People with Physical and Sensory Disabilities

The majority of leisure centres (60%) reported that they provided some facility to make exercising easier for participants who have a physical or sensory disability. Several methods were reported to make exercising for individuals with physical and sensory disabilities easier such as demonstrating movements or exercises more clearly and carefully for individuals. Fitness instructors also stated that their leisure centres provided all necessary facilities that individuals with disabilities may need, such as toilets and changing facilities etc. They stated that they also provided safe and effective classes and programmes for individuals to take part in.

All of these methods would enable easier participation for individuals with disabilities when they were exercising in leisure centres and it would allow individuals to enjoy their experience more than if they were left to cope on their own with nothing provided for them.

Additionally on joining the leisure centre the person should be given an induction to the gym and all the leisure centres facilities. It should be explained to the client what is available to them now that they have joined the facility. They should receive a fitness assessment soon after joining the facility so that their individual gym programmes can be made out specifically for them and that they can receive advice in relation to which classes they should take part in.

Although 60% of leisure centres provided some methods of making exercising easier for those with a physical or sensory disability, 40% did not do anything. Leisure centres should facilitate exercise for people with disabilities as they might encourage participation.

6.7 Limitations of Study

In conducting this study a number of problems arose. The first problem was trying to identify a suitable database of participants. The database that was selected was private and confidential and did not allow the researcher to have direct contact with the participants. The distribution of the questionnaires to participants was affected as they were not all sent out by the organisations at the same time and some were not sent to participants before the actual return date that was set out on the questionnaires. This had an effect on the overall return rate of questionnaires and resulted in a poor overall response rate. With these delays occurring it also slowed down the completion of sections of the study. This may have been overcome by increasing the communication with the organisations distributing the questionnaire.

With the questionnaire itself it was felt that there might have been a lack of understanding in relation to what was needed, when ranking the answers in the proper order of 1,2,3. This may have altered the final ranking results of these questions and answers. In future studies, questions such as these should have an example showing what is required in answering these types of questions. Piloting of

the questionnaire at the beginning would have helped overcome this problem and this would have been identified then.

The leisure centre results may be misleading in that some leisure centres had more than one employee return questionnaires, this giving the impression that the situation was better than it actually was. In distributing the questionnaires to the leisure centres, no identification system was used, so that returned questionnaires could be identified to determine where they were being returned from; this was unfortunate as it would have allowed for a better understanding of some of the answers received. For future studies a record, either numbering the questionnaires or colour coding them will help to identify where the questionnaires came from, while at the same time protecting the identity of individual respondents.

Another problem found in this study was that, when comparing and contrasting results of this study to other studies related to physical activity, there were very few study references or results that incorporated people with physical and sensory disabilities in them.

Even with these difficulties a lot of interesting and valuable information was obtained and will be used to promote and develop schemes which will help people with physical and sensory disabilities participate in more physical activities and integrate them into society more.

7. Conclusions and Recommendations

The findings of the study can be summarised in the following points:

- Ø Overall 54% of respondents said that they were regularly involved in some form of physical activity.
- Ø Most physically active respondents (29%) took part in physical activity at a fairly light level.
- Ø The most popular activity for men and women was walking 55%.
- Ø The main reason given for participation was "to reduce the effects of my disability" while the main reason not too participate was "due to my disability".
- Ø Only a quarter of those who were physically active believed they did enough physical activity.
- Ø 89% of respondents believed that being physically active could lead to them achieving health benefits.
- Ø The main benefit perceived by respondents was that physical activity "Maintains/improves muscle strength, endurance and flexibility".
- Ø Access was seen as the main barrier to participation for people with disabilities.
- Ø A large proportion (80%) of leisure centre fitness instructors said they had members who had a physical or sensory disability.
- Ø Only 20% of fitness instructors stated that they had received training in adapted physical activity or physical activities training for people with disabilities.
- Ø Provisions were made in 60% of leisure centres for making exercising easier for people with disabilities, with 40% making no such provisions.
- Ø Only 14% of leisure centres had done something to encourage physical activity participation.
- Ø A small proportion (20%) of leisure centres had developed a partnership with a disability organisation.

In conclusion the study has shown that the level of participation in physical activities of people with physical and sensory disabilities is relatively the same as for able-bodied people in Ireland. It did identify though that level of participation

amongst younger respondents was lower than other national figures. It was also found that the level of intensity participated at was below the average found in the study "A National Survey of Involvement in Sport and Physical Activity". It was also shown that participants did not spend enough time participating in physical activities per day or per week, which is a concern that needs to be focussed on.

A number of recommendations were made as a result of the study to encourage and enhance further participation in physical activities for all people with physical and sensory disabilities.

1. There is a need to provide more opportunities for individuals to participate in sports and activities, to increase the number of individuals who participate in physical activity.
2. All leisure centres should have an employee who is qualified to work with individuals with a physical or sensory disability in relation to exercise activities.
3. Access should be considered in the location and design of all new buildings and facilities open to the public.
4. The barriers, which were acknowledged in this study that affect people with disabilities should be addressed, and the effect that they have on participation should be lessened for people with physical and sensory disabilities.
5. Individuals must be made understand that they have to exercise regularly and at a specific intensity so they can experience the health benefits which can be achieved from the exercise they participate in.
6. There is a need for young people with disabilities, to be educated, encouraged and supported in becoming physically active.
7. There is a need to increase each individual's knowledge of exercise benefits so to help promote physical activity amongst participants.
8. Physical activity should be promoted through all national sporting bodies and national voluntary disability groups who can explain the benefits and improvements that can be achieved from physical activity participation.
9. Leisure centres should develop partnerships with local voluntary disability groups so that they can encourage physical activity participation and provide an integrated setting, which would allow for people with disabilities to enter into an integrated community.

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Appendix 1

23rd April 2002

Dear Lorraine,

The Department of Public Health in the Western Health Board is undertaking a study on the participation of people with disabilities in physical activity. We are examining the level of involvement in sport and exercise and the factors influencing participation of people with disabilities between the ages of 18-65. We would like to issue questionnaires to individuals on your organisation's database to be involved in this study.

Studies have shown that people with disabilities can achieve significant health benefits from moderate amounts of physical activity. They have lower fitness levels and are less active than able-bodied people. Results from this study would help us recognise the reasons why people with disabilities do and do not participate in physical activity, the barriers they face and the activities they participate in.

To this end I am writing to enquire about the possibility of administering the questionnaire to people with disabilities through your organisation. The questionnaire will take 5-10 minutes to complete. (See attached). The findings of the study will be made available to your organisation, if you so wish.

Any queries you may have concerning the questionnaire please do not hesitate to contact me to discuss the matter. If you believe the questionnaire to be appropriate to use please inform me of the number of questionnaires I can send to you for distribution.

Thank you in advance for your assistance

Yours sincerely

Paul Audley

Appendix 2

Survey of People with Disabilities, Participation levels and Barriers in Physical Activity

Department of Public Health, Western Health Board

1). Are you?

Male	1
Female	2

2). Please state your age _____ years

3). Do you live in?

Rural	1
Urban	2

4). Do you suffer from a physical or sensory disability?

Physical	1
Sensory	2
Both	3
Don't know	4

5). Do you participate in physical activity at the moment?

Yes	1	Continue on
No	2	Go to Q.12

6). What level of physical activity do you consider you take?

Very very light	1
Very light	2
Fairly light	3
Somewhat hard	4
Hard	5
Very hard	6
Very very hard	7

7). How many days a week do you approximately participate in physical activity?
 _____Days

8). How long approximately would you spend participating in physical activities per day?
 _____Hours _____minutes

9). What are the main physical activities that you take part in?

Activity	Yes	No
Archery	1	2
Badminton	1	2
Basketball	1	2
Boccia	1	2
Bowling	1	2
Canoeing	1	2
Cycling	1	2
Equestrian	1	2
Jogging/Running	1	2
Sailing	1	2
Swimming	1	2
Walking	1	2

Others please specify:

10). Why do you participate in these physical activities?

(Mark your top three reasons i.e. 1 as the top reason)

To keep fit	
To lose weight	
I enjoy physical activity	
Because my friends do	
To meet new people	
To occupy my time	
To help relax myself	
To get outdoors	
To reduce the effects of my disability	

Others please specify:

11). Do you believe that you currently participate in enough physical activity?

Yes	1
No	2
Don't know	3

12). Why do you **not** participate in physical activity?
(Indicate your top three reasons i.e. 1 as the top reason)

I don't enjoy sport	
I have no time	
None of my friends play sport	
It is too expensive	
I have no transport	
I don't know where to go	
I am not fit enough	
Due to my disability	
I am not motivated to participate	
I don't have a personal assistant	
No access to facilities	

13). Do you believe that you can gain health benefits from participating in physical activity?

Yes	1	Continue on
No	2	Go to Q.15

14). Which of the following benefits do you believe to be the most important reasons for participating in physical activity?
(Indicate your top three reasons i.e. 1 as the top reason)

Meeting new people	
Getting fit	
Reduce risk of coronary artery disease	
Reduce risk of high blood pressure	
Reduce risk of secondary complaint	
Maintains/Improves muscle strength, endurance and flexibility	
Helps control weight	
Helps improve self esteem	
To be outdoors	
Gives you more energy	
Helps reduce stress/anxiety	

15). What barriers have you faced when participating in physical activity?
(Mark your top three reasons i.e. 1 as top reason)

Transport	
Expense	
Access	
Facilities	
Communication barriers	
Attitude of others	
Your own attitude	
Inappropriate equipment	
No coaches/trainers	
No personal assistant	
No teams	

Others please specify:

16). How do you feel leisure service providers (leisure centre managers, fitness instructors, Pool attendants, etc) treat people with disabilities who participate in physical activities?

Comment:

What would you like to see occur so that there would be more opportunities available for people with disabilities to participate in physical activities?

**THANK YOU FOR YOUR ASSISTANCE,
PLEASE RETURN BY MAY 13TH, USE THE FREEPOST
ENVELOPE PROVIDED.**

Appendix 3

24th April 2002

**RE: SURVEY OF PEOPLE WITH DISABILITIES PARTICIPATION
LEVELS AND BARRIERS TO PHYSICAL ACTIVITY**

Dear Sir/Madam,

The Department of Public Health in the Western Health Board is conducting a study on the participation of people with disabilities in physical activity. We would like to ask you a number of questions in relation to this topic.

This survey is important and the results will help in the planning of physical activities for people with disabilities. The more people who respond to the survey the better the results will be. We would therefore appreciate it if you could spend a few minutes filling in the enclosed questionnaire. The survey is completely confidential.

Please complete the questionnaire by putting a circle around the appropriate answer number e.g. (2). The questionnaire should be returned by the 13th of May using the freepost envelope provided.

Any queries you may have concerning the questionnaire or study please do not hesitate to contact me to discuss the matter at the above number.

Thank you in advance for your assistance,

Yours sincerely

Paul Audley

Appendix 4

24th April 2002

Dear manager,

The Department of Public Health in the Western Health Board is undertaking a study on the participation of people with disabilities in physical activity. We are examining the level of involvement in sport and exercise and the factors influencing participation of people with disabilities between the ages of 18-65. We would like for staff from your leisure centre to be part of this study.

Studies have shown that people with disabilities can achieve significant health benefits from moderate amounts of physical activity. They have lower fitness levels and are less active than able-bodied people. Results from this study would help us recognise the reasons why people with disabilities do and do not participate in physical activity, the barriers they face and the activities they participate in.

To this end I am writing to enquire about the possibility of administering the questionnaire to leisure centre staff in your facility. The questionnaire should take no more than 10 minutes to complete. (See attached questionnaire). All answers will remain private and confidential and are for use only in this study.

Any queries you may have concerning the questionnaire please do not hesitate to contact me to discuss the matter. If you believe the questionnaire to be appropriate to use please inform me of the number of questionnaires I can send to you, for your staff to complete.

Thank you in advance for your assistance,

Yours sincerely

Paul Audley

Appendix 5

Survey of People with disabilities participation levels and barriers to physical activity

Department of Public Health, Western Health Board

The Department of Public Health is conducting a survey of activity levels by people with disabilities. We would like to ask you a number of questions. It will only take a few minutes to complete, and your responses will be kept strictly private and confidential. Please complete the questionnaire by circling the number, which corresponds to your answer (e.g. ②) and by stating your answers fully when the space is provided.

1). How long have you been a qualified instructor? _____ years

2). What age are you _____ years.

3). Are you?

Male	1
Female	2

4). Does your leisure centre have any members (new/old) who have a physical or sensory disability?

Yes	1	Continue
No	2	Go to Q.5
Don't Know	3	Go to Q.5

5). Do these members participate in integrated or separate exercise classes from able-bodied members?

Integrated	1
Separate	2

6). Is it important for your leisure centre to establish an integrated setting between its members?

Yes	1
No	2

7). How do you adapt your exercise class so to allow for full participation in it by people with disabilities?

8). Do you believe it is necessary for an instructor to be trained in physical activity practices for people with disabilities?

Yes	1
No	2

(If yes please state why)

9). Have you participated in any courses that incorporate a module on physical activity and people with disabilities in your training?

Yes	1
No	2

10). Has your leisure centre done anything to encourage people with physical and sensory disabilities to attend?

Yes	1
No	2
Don't know	3

(If yes, what have they done)

11). Has your leisure centre had any contact with voluntary organisations for people with physical or sensory disabilities?

Yes	1
No	2
Don't know	3

(If yes state organisation that contact is with)

12). How would you propose to increase a person with a physical or sensory disability's knowledge of the benefits of physical activity?

13). What does your leisure centre do to make exercising easier for people with physical or sensory disabilities?

**Thank you for your assistance
Please return by May 13th; use the Freepost envelope
provided.**