Females with a Disability and Participation in Sport

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Abstract

It is well proven that a physically active lifestyle has associated health and social benefits and is linked to a sense of wellbeing. It is also acknowledged that not all groups in society have the same opportunities to engage in sport and physical activity, and that participation can be gendered. This paper presents a study of the sport participation of females with a disability within Australia to better understand some of the key drivers to enhance levels of involvement in sport and thus facilitate a healthier lifestyle. The research design employed an online questionnaire available for completion in nine formats depending on the disability type and the support needs of individuals responding. Questions sought both quantitative responses about levels of participation and qualitative responses about the constraints experienced and benefits received from participation. Some 266 women with disability responded, of which 86% indicated that they were active sport and recreation participants. The results show higher levels of participation by women who were independent or had lower to moderate support needs compared with women with high to very high support needs who had substantially lower levels of participation. Yet, when examining the constraints that these groups faced, rather than being intrapersonal in nature (e.g. the individual's impairment) there were a series of interpersonal (e.g. no one to participate with) and structural (e.g. government support) issues that constrain participation. The constraints were then examined from the perspective of those outside of sporting context those within the sporting context. For those who did participate, the benefits were identified as a sense of achievement together with improving health. The other key benefits were overwhelmingly social in nature, including belonging, companionship and having time with friends. The implications for sport and active recreation involvement generally and for sport participation in particular are discussed.

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Escalating levels of childhood obesity, dramatic increases in sedentary behaviour across all age groups and alarmingly decreasing physical activity levels of young people, have generated much recent discussion about the associated community 'costs' of such lifestyles. Hence, there is a growing public awareness of the importance of providing better opportunities for people to lead more active and healthier lives. However, some population groups, such as people with disability, face greater challenges than others when it comes to maintaining good health and engaging in physical activity. For many people with disability, secondary health conditions include osteoporosis, reduced muscle strength and endurance, reduced aerobic fitness, increased spasticity, being overweight, hypertension and depression (Buffart et al., 2009). Participation in physical activity and sport can have positive effects on secondary conditions, and on functional independence, social integration, citizenship and quality of life (Durstine et al., 2000; Heath & Fentem, 1997). Involvement in physical activity and sport is a way to afford individuals with disability an opportunity to develop and maintain physical and mental health and general well-being.

In reporting on research that indicates that people with disabilities who are physically active accrue a range of benefits from their participation, Groff et al. (2009, p.319) note that such individuals have been found to: (i) be better adjusted and more satisfied with life, (ii) report having fewer days of pain, depression, anxiety, sleeplessness, and improved vitality, (iii) substantially increase their life expectancy, (iv) be stronger and have more stamina, (v) have improved cardiovascular health and fitness, (vi) experience fewer and less severe secondary health conditions, and (vii) develop a positive athletic identity. With the evidence overwhelmingly supporting the improved health, psychosocial and citizenship benefits of participation why are people with disability participating less than the general population? As stated in the introduction, people with disability, and women with disability in particular, identified a series of barriers to participation that deny them the benefits that they could be receiving.

The aim of the research presented in this paper is to explore the main barriers to and facilitators of physical activity for women with disabilities. The paper presents the results from a study on females and sport participation, as commissioned by the Australian Paralympic Committee. The data are a sub-set of a broader study of disability and participation in sport commissioned by the Australian Sports Commission (Darcy, Taylor, Murphy, & Lock, 2011).

People with a Disability and Participation

Current sport and active recreation provision for people with disability reflect the many historical and cultural contexts and issues faced by disabled populations. It has been argued that participation is a complex interaction between numerous factors and obviously some population groups have greater challenges and less opportunity than others. Within most countries, people with disability participate at a significantly lower rate in sport and active recreation than the rest of the population (Garber, Allsworth, Marcus, Hesser, & Lapane, 2008; Murphy & Carbone, 2008; Vanner, Block, Christodoulou, Horowitz, & Krupp, 2008).

Crawford and Godbey (1987) identified three categories of potential constraints with respect to leisure, and we suggest these could also apply to sport and physical activity. These are:

1. Intrapersonal — lack of self-confidence, lack of encouragement or lack of information about opportunities for leisure that affect preference or lead to a lack of interest in a particular type of leisure activity.
2. Interpersonal — associated with other individuals, including lack of leisure partners or lack of social interaction skills. Our
3. Structural — those that exist between individual preferences and participation in a leisure activity, including lack of finances, lack of transportation, limited abilities, lack of time or architectural barriers.

The leisure constraints experienced by people with disability vary for individuals depending on their impairment, level of independence, race and gender (Bedini, 2000; Bedini & Henderson, 1994; Dattilo, Caldwell, Lee, & Kleiber, 1998; Fitzgerald, Jobling, & Kirk, 2003; Henderson & Bedini, 1997; Henderson, Bedini, Hecht, & Schuler, 1995; Hunter, 1984; Oliva & Simonsen, 2000; Perry, 1994; Rimmer, Rubin, & Braddock, 2000; Smears, 1996; Wade & Hoover, 1984). The combination of these "double whammies" (Henderson & Bedini, 1997), increase the complexity of understanding the social phenomena and how to provide the appropriate/best social responses to facilitate sport and active recreation participation. Yet, surprisingly few studies have examined the leisure constraints of women with disability participation in sport and active recreation. Table 1 provides a useful categorisation barriers and constraints.

Table 1: Barriers to sport, recreation and leisure participation for people with disability

Category	Barrier and description
Intrinsic (intrapersonal)	Lack of knowledge — about leisure programs, facilities, resources and other information required in order to make informed choices. Social ineffectiveness — some people with disability may have ineffective social skills. Health-related issues — people with disability, like the rest of the community, may have health-related issues that have an impact on their participation. Physical and psychological dependency — some people with disability have physical dependency due to their impairments, while others may have a ‘learned’ psychological dependency (for example, attendant assistance). Skill/challenge gaps — as conceptualised in ‘flow’ theory, skill/challenge gaps are a major consideration in choice of leisure activity.
Environmental (structural)	Attitudinal barriers — a variety of attitudinal barriers may be faced by people with disability. These include negative behaviour towards individuals (for example, exclusion, verbal abuse, violence), paternalism (for example, treated as childlike, assumed decision-making roles) and apathy (for example, ignoring existence and, hence, exclusion). Architectural barriers — to the built environment. Effective legislation, design, planning and construction can help to overcome these barriers and is discussed in greater detail later. Rules and regulations barriers — in some situations, rules and legislation have been enacted that deliberately discriminate against people with disability (for example, international air carrying regulations). Transport barriers — for people with higher support needs, there is a lack of suitable and affordable accessible transport. Economic barriers — people with disability experience far higher rates of unemployment (from the average to 99%, depending on a range of factors) and, therefore, are economically disadvantaged. Further, many impairments

	have additional costs that must be met by the individual (for example, equipment, wheelchairs, personal care consumables). Barriers of omission — this includes all those facilities, programs, policies and procedures that do not incorporate inclusive practices for people with disability (for example, modified rules).
Communication (interpersonal) barriers	Communication — cannot be thought of as primarily intrinsic or extrinsic, as communication involves reciprocal interaction between the individual and her/his social environments. Therefore, barriers arising can occur through the sender, the receiver or both. Further, people with disability may have multiple disabilities that affect communication (for example, speech, hearing, sight, cognitive, brain damage).

Source: Smith et al. (Smith, Austin, Kennedy, Lee, & Hutchison, 2005)

Yet, as Smears (1996) noted in response to Henderson et al. (1995), much of this body of work has not been based on a disability perspective but a medical approach or on the researcher's theoretical position. This work has made assumptions about disability that focused on the individual's loss, although the findings of much of the above research consistently identified structural constraints as the major constraints identified by people with disabilities. However, critiques of constraint models suggest that grounded analysis should be considered to examine emergent themes from people's experiences rather than be defined by the researcher (Samdahl & Jekubovich 1997a; 1997b). Similarly, leisure constraints research has been criticised for its reliance on quantitative, survey based methodologies that focus on social psychological paradigms. The results of leisure constraints research could be regarded as the product of a particular kind of social science rather than as objective social science research (Jackson & Scott 1999).

With respect to the participation of women with disability in sport and active recreation, there have been two broad bodies of literature that need to be acknowledged. The first, developed from the medical and sport science literature that focuses very much on understanding the biological and medical responses of women with disability's sport performance. This body of work has developed in response to understanding the biomechanical and physiological implications of women with disability's participation (e.g. Guthrie & Castelnuovo, 2001; Harrison, Umberson, Lin, & Cheng, 2010; Rantanen et al., 1999; Van Der Ploeg, Van Der Beek, van der Woude, & van Mechelen, 2004). This literature has focused on understanding and improving the physical and psychological ability of women to perform in sport. A second body of work can be framed from a social constructionist perspective that seeks to understand the broader social phenomena of women with disability's sport and active recreation engagement. It interrogates the social, cultural, political and economic implications (e.g. Ashton-Shaeffer, Gibson, Holt, & Willming, 2001; DePauw & Gavron, 2005; Jordan, 2010) and includes the research on leisure constraints as they relate to women's participation identified previously. More recently, contemporary approaches to disability that can be conceptualised around the social model of disability have been introduced (Oliver, 1996) to focus attention on the disabling barriers facing people with disability and seek transformative enabling solutions to improve disability citizenship (Barnes & Mercer, 2010; Swain, Finkelstein, French, & Oliver, 2004). Contemporary manifestations of the social model have been influenced by feminist studies (Thomas, 1999) and clearly identify that being a person with disability has gendered nuances within sport and recreational settings. Gender has increasingly been included as part of studies examining sport and recreation participation and settings (Aitchison, 2003; Devine, 2004; French & Hainsworth, 2001; Liu, 2009; Lord & Patterson, 2008; Macbeth, 2010; Patterson & Pegg, 2009). Yet, most of this research has specifically looked at the participation and

nonparticipation of women with disability, the constraints they face and the benefits they receive if they participate.

Method

A questionnaire survey was developed using relevant literature and items from previous research and comprised four sections: benefits; constraints; patterns of participation and non-participation; and demographic and psychographic profile. The online questionnaire also incorporated leisure/sport constraints theory, benefits research and individual and social attitudes towards disability experienced by the respondents. Aspects of the national participation survey data (ERASS) was used to compare people with disability participation trends with the general population (Australian Sports Commission & State and territory government agencies, 2001-2009).

The online questionnaire used an electronic snowballing technique in conjunction with a database of 300 disability organisation contacts. The survey was self-report (or completed on behalf of the respondent by a family member or carer). The online questionnaire generated a significant sample of fully completed responses (n=1100). One of the defining elements that set this questionnaire apart from previous research was that it involved cross disability research where the survey was available in nine separate formats. These included: Survey monkey online questionnaire compliant to section 508 of the Americans with Disabilities Act; hard copy of the survey for those without access to the Internet; large print; easy text for blind people who use screen readers; braille for blind people who only use braille; easy English for people with intellectual disability who required the support of an attendant to complete the questionnaire; online version of the questionnaire with embedded Auslan video clips for the Deaf and hearing impaired community ; phone assisted completion for those who would prefer to answer via a person assisting; and online questioning specifically set up for people with mental health considerations.

The subset of female respondents is presented here and analysed for gender dimensions in participation rates and the constraints faced and the benefits received from sport and recreation involvement. Compared with Australian census data (eg. ABS 2006), the response profile indicates a self selection bias, which means that females that participate in sport were more likely to complete the survey. This is not surprising given that people who do not participate in sport and active recreation may not have had the predisposition to complete the questionnaire. The results should be read with this consideration in mind.

While the sampling method of electronic snowballing is an efficient means of contacting people with disability and those with access needs, limitations with respect to those who have access to the internet and those members who regularly check their organisational website or their electronic or print publications are noted.

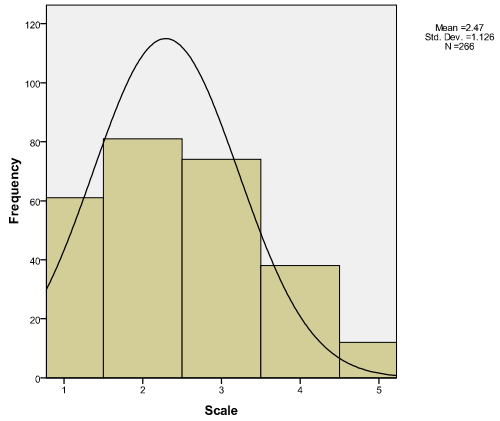
Respondent Profile

The following results are based on a sample of 266 fully completed questionnaires. Respondents were females with a disability (average age of 31.9 years of age), 88.7% of these were born in Australia. As a quarter of the country's population are born overseas (ABS, 2006) this sample is over representative of Australian born females. The largest group of respondents characterised themselves as a person with an intellectual/cognitive disability at 32.3% (Table 2) with very low levels of support needs.

Table 2: Main disability

Main disability	Percent
Intellectual/ cognitive/ learning	32.3
Blind or vision	15.0
Mobility - Manual wheelchair	13.2
Mobility - No aid required	10.9
Physical - not affecting mobility	10.9
Mobility - Other mobility aids	10.2
Mobility - Power wheelchair	7.5
Total	100.0

Figure 1: Level of support needs



NB: Scale is 1=None, 5=Very high

The respondents were highly educated with 32.3% having completed at least an undergraduate diploma. Of the respondents 36.8% were engaged in paid employment. Those with an intellectual disability worked the least hours per week (M=14.13) while those with limited mobility using other aids work the most (M=23.91). There is a statistically significant difference between groups (p=0.000) indicating that those who have higher support needs work less hours per week.

Table 3 shows the correlation between disability type and level of support needs. It clearly indicates that people in a power wheelchair report require far higher levels of support than other disability groups and participated in the list of any group. This result is statistically significantly against all groups except those with an intellectual/cognitive disability.

Table 3: Average response for level of support needs by disability type

Main disability	Mean*	Std. Deviation
Mobility - Power wheelchair	3.50	1.235
Intellectual/ cognitive/ learning	3.03	.939
Mobility - Manual wheelchair	2.37	1.140
Mobility - No aid required	2.10	.860
Mobility - Other mobility aids	2.04	.980
Blind or vision	1.95	.959
Physical - not affecting mobility	1.69	.850
Total	2.47	1.126

* Support needs scale: 1=none, 5=very high

Activity Characteristics

A sizeable proportion (85.7%) of the respondents participated in sport and recreation activities in the 12 months preceding the survey. These are extremely active participants, the majority of which participate more than twice per week (20%) and over half of the sample (56%) participated in at least two activities. The most common activities for females were recreational swimming (46.5%), going to the gym (18%) and ten pin bowling (8.8%). The main activity that they engaged with is participated on average 266 minutes per week, 6 times per week and 22 times per month.

The largest group of active participants were people with an intellectual/cognitive disability (35.1%) while the two largest groups of non-participants were those using a power wheelchair and those with a mobility problem without aid required (21.1% each) (Figure 3). All groups were very likely to participate in sport and recreation however, blind/vision impaired people were much more likely to participate in sport (95% participation) while power wheelchair users were less likely to participate (60% participation) (Figure 3).

Figure 2: Participation rate of disability groups

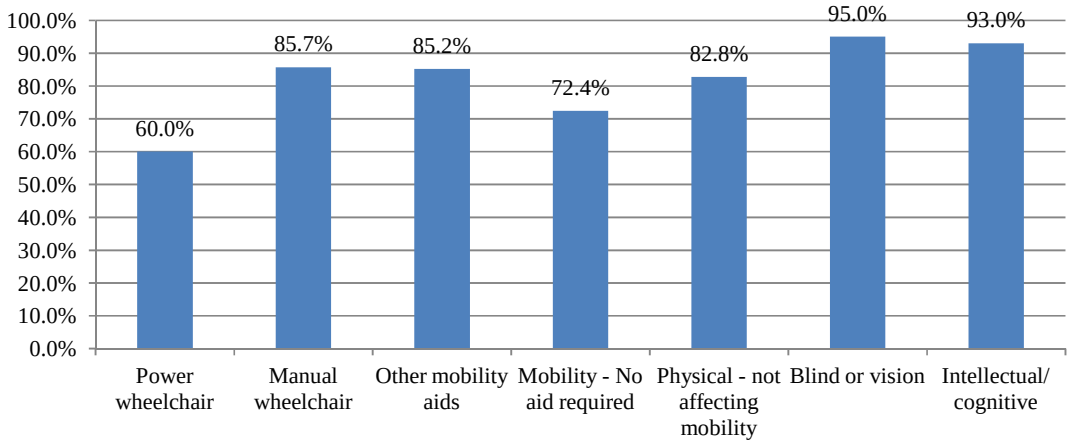
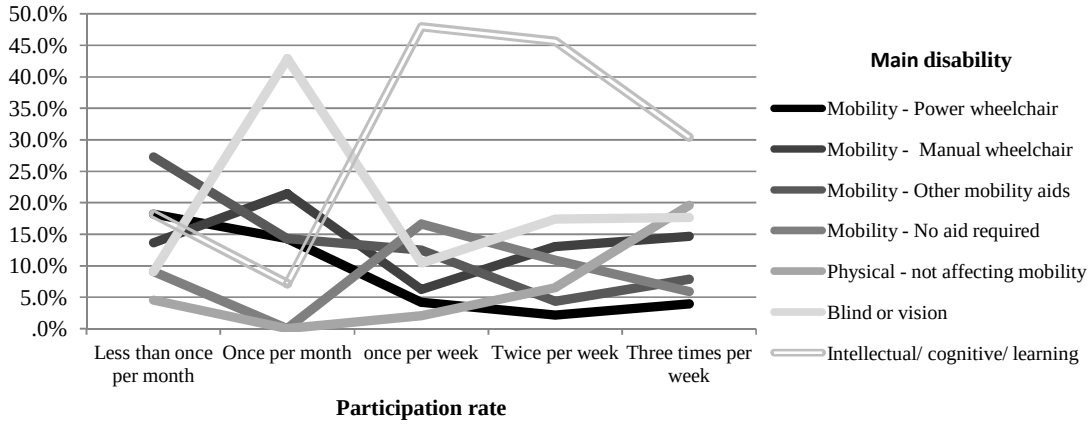


Figure 3: Disability and the frequency of participation



People who require greater amounts of support participated less in sport and this correlation is statistically significant (p=0.038). As a group, people with a physical disability (not affecting mobility) participate in sport and recreation at a greater rate than other groups (Figure 3). They also have a statistically significantly higher rate of participation than those in power wheelchairs (p=0.002), those requiring other mobility aids (p=0.000) and those with a cognitive/intellectual disability (p=0.039).

Respondents were asked to rate their health, fitness and participation in sport and recreation out of 5 (Excellent). Non-participants rated their health, fitness and participation in sport and recreation more poorly than participants and this result was statistically significant (3.11 vrs 2.09).

Women that identified they had a physical disability that does not affect their mobility, on average, reported better health, fitness and participation. On individual items

they believed that they were the most fit and participate in the most sport and recreation, however, blind /vision impaired respondents felt that they were healthier compared to other groups. Females rated themselves more poorly on each item than males, however, this result is only statistically significant for level of fitness (p=0.006) and sport participation (p=0.032) ie not fitness. These ratings were also compared by level of support needs. Not surprisingly, there was a strong negative correlation - the higher the level of support required, the lower respondents rated their levels of health, fitness and sports participation.

Benefits and constraints

Women with a physical disability were the most satisfied with their level of participation, followed by women with Intellectual/ cognitive/ learning. On the other hand, power wheelchair users and those with no mobility aids indicated a desire for participating in a greater amount of sport (86% and 85% respectively). The top 10 benefits of sport participation are listed in table 4. A comparison with the results for males found that there were two statistically significantly more important benefits for women in sports participation. These were 'to lose weight' (t=-2.507, p=0.012) and 'Improve health or reduce the risk of disease' (t=-2.765, p=0.006).

Table 4: Top 10 Benefits of sports participation

Benefit	Mean*
1. Achievement	4.21
2. Improve health or reduce the risk of disease	4.21
3. Improve muscle tone	4.13
4. Improve heart and lung fitness	4.11
5. Opportunities to socialise with others	4.10
6. Do something stimulating	4.09
7. Improve self esteem	4.08
8. Build up muscle strength	4.08
9. Enjoy company of friends	4.05
10. Spend time with friends	4.04

* 1=Not at all important, 5=very important

There are several items that are statistically less important to women than men. These included: meet new people; have an adventure; encounter exciting things; and to be valued for my contribution. Some any other benefits identified through the open ended comments of respondents were:

- A sense of purpose – 'I am a member of the Australian wheelchair
- women's tennis squad; so am constantly aiming to improve my ability to be competitive at an elite level' (Participant)
- Very important for my mental health. 'In the past I've suffered from depression and sport and active recreation has helped me off ant-depressants which I have been taking for 14 years. Health has been so good during the last 3 years' (Participant)
- Time away from home being independent. 'Being able to do my 'own thing'. Enjoying the company of other participants in the classes' (Participant)
- Increase in mobility function. 'Also losing weight will not only aid my disability but will also recover my heart and respiratory issues which are largely due to obesity and a sedimentary lifestyle' (Non-participant).

The top 10 constraints to sports participation are listed in table 5. A comparison with male responses did not find any statistically significantly greater constraints however there were several items that were more constraining for women but not significant. The most statistically significant include of these were: too many domestic duties; too many responsibilities; feelings of guilt; and poor health.

Table 5: Top 10 Constraints to sports participation

Constraint	Mean*
1. Lack of government support	3.16
2. No integrated sport and recreation programs available	2.97
3. Pricing	2.96
4. Lack of money	2.95
5. Lack of trained staff to support my participation	2.83
6. No access to facilities close to home/ work	2.82
7. Lack of personal income	2.82
8. No assessment of pwd's needs	2.78
9. No friends to participate with	2.77
10. Scarcity of places	2.74

* 1=Not at all important, 5=very important

The constraints were compared for participants and non-participants. All of the 50 items were rated as more constraining by non-participants and 31 of these are statistically significantly more constraining. The highest rated aspects included: no friends to participate with; no support to participate; lack of awareness of the benefits of sport and recreation; too many domestic duties; lack of accessible public transport; lack of accessible toilets and changerooms; sport and recreation not important; and, sport and recreation is 'only for men'.

These results are reflected in the open-ended responses. Some of the responses from active participants were:

- lack of public transport most times, particularly weekends and after hours, no on site facilities in the workplace.

- I have a gym nearby but do not feel safe walking there and back I work full time and already have to pay out for taxi's for that so cannot afford to pay out to attend gym as well The friends I do have live too far away to take me and are not interested in attending with me That is why I bought a treadmill myself, but this can be boring and isolating.

- I can only go swimming with a female carer and one who is confident in the water. I can only go to the gym with a carer who knows gym work and is able to stop me from hurting myself.

- Embarrassment due to disability and fear of not being able to participate well. Lack of confidence Fear of failing at the chosen activity.

Non-participants stated the following:

- Live in small country town which does not really have any disabled friendly facilities.

- Cannot participate as people think you might get hurt and you would not be an asset to the team.

The respondents were given the chance to suggest some strategies that would support them in sport participation. Most of these were around provision of subsidies, better access to information about the benefits of sport participation; better education of the community about inclusive practices, and provision of 'accessible' equipment and transport. There were several comments about the need to ensure sport providers offered encouragement and support for women with disabilities, and the lack of opportunities for older women and the suggestion of a Seniors Para Games.

Conclusion

This research provides a foundation from which to gain an improved understanding of the participation of women with physical disabilities in recreational and sport activities. Such information can assist families and service providers in planning activities that fit with their family member with disability preferences and ensure active participation. The constraints framework suggests that while people have a disability that may impact on their access to participation, it is not the disability that constraints the participation in sport and active recreation but rather it is a complex interplay of structural constraints. From a policy perspective, this suggests that there are a series of strategies that could be put in place by government agencies charged with disability services broadly, government sport agencies, sport organisations and sport businesses that could act to improve participation by women with disability. Given the opportunity to participate, these active women reported experiencing a combination of social and personal benefits that are important for an individual's identity and citizenship. Governments and organisations should be encouraged to develop strategies for sporting engagement as improved sporting engagement can be a precursor to women with disability becoming engaged in all areas of life.

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