LEISURE CONSTRAINTS AND LEISURE SATISFACTION IN THE RECREATIONAL ACTIVITIES OF EMPLOYEES WITH DISABILITIES

Gulsun CELİK¹, Evren TERCAN² & Tennur YERLISU-LAPA²

¹School of Physical Education and Sports, Akdeniz University, Antalya, Turkey

²Sport Management Department, School of Physical Education and Sports,

Akdeniz University, Antalya, Turkey

ABSTRACT

This study analysed leisure constraints and leisure satisfaction in the recreational activities of employees with disabilities. The sample (N=123) consisted of 91 men and 32 women with disabilities working in public institutions in Antalya, Turkey. Leisure constraints were measured using the Leisure Constraints Questionnaire developed by Alexandris and Carroll, and leisure satisfaction was measured using the Leisure Satisfaction Scale developed by Beard and Ragheb. The leisure constraints and leisure satisfaction of the respondents were compared according to gender, age and frequency of leisure participation, using the Mann-Whitney U-test. The results indicated no significant differences in mean scores for leisure constraints for either gender or age, although scores on the subscale for 'individual/ psychological factors' revealed significant differences in the frequency of leisure participation. The Leisure Satisfaction Scale revealed significant gender differences on the social subscale, as well as age-related differences on the psychological subscale. The mean scores for individual/psychological constraints were higher for respondents who participated in leisure activities one day a week than for those who participated more days per week. To increase the participation in leisure activities and to enhance the satisfaction derived from participation, the planning and arrangement of recreational services should be designed specifically for employees with disabilities.

Key words: Leisure; Recreation; Constraints; Satisfaction; Employees with disabilities.

INTRODUCTION

According to the World Report on Disability of the World Health Organization, more than one billion people (15% of the world population) are living with some form of disability (World Health Organization, 2011). The number of people affected increases considerably when the families of individuals with disabilities are included in the calculation. Studies concerning people with disabilities have attracted the interest of both academics and public policy makers. This interest tends to focus on topics concerning education, health, housing, social services, legislation or other service-related issues and not on leisure (Aitchison, 2000). Many theorists have tended to underestimate the potential positive effects of leisure, concentrating instead on the access of people with disabilities to employment or education (Tregaskis, 2003). Although these efforts are very valuable, there is a lack of research within the sphere of leisure, which has been identified as an important life domain, alongside

marriage, work, standard of living, friendship and health (Headey *et al.*, 1991). As such, leisure contributes physiologically and psychologically to the well-being of all individuals, regardless of whether they have any disabilities. Leisure has been shown to increase self-esteem and psychological well-being, to enhance physical health and fitness and to decrease the risk of various illnesses (Aitchison, 2003).

Although the amount and patterns of leisure participation by people with disabilities are likely to differ from those of people without disabilities, both groups are subject to leisure constraints that prevent them from participating in leisure activities or from achieving the desired level of satisfaction from these activities. Given the importance of leisure activities, leisure constraints constitute a predominant subject in leisure literature (Alexandris & Carroll, 1999). As defined by Jackson (2000:62), leisure constraints are "the factors that are assumed by researchers and perceived by individuals to inhibit or prohibit participation and enjoyment in leisure". It is nevertheless possible for people to participate in leisure despite the presence of constraints.

Particularly since the 1980s, this subject has been examined more systematically and has proven useful in drawing conceptual connections among the various aspects of leisure behaviour (Jackson, 1988). In an important contribution to literature, Crawford and Godbey (1987) state that, in addition to affecting participation and non-participation, leisure constraints influence the level of desire for and awareness of leisure activities.

Leisure constraints have also been shown to affect leisure behaviour (Hinch et al., 2005). Crawford et al. (1991) use a hierarchical model to explain leisure constraints, classifying them into three dimensions: intrapersonal, interpersonal and structural. In addition to these concepts, Jackson et al. (1993) highlight the notion of negotiation, arguing that individuals seek ways to participate in leisure, despite being confronted with constraints. Leisure participation thus does not depend upon a lack of constraints, but rather on how these constraints are negotiated. In a study of 363 high school students, Raymore et al. (1993) conclude that intrapersonal, interpersonal and structural constraints play a decisive role in determining the decision-making processes of individuals with regard to leisure participation. Alexandris and Carroll (1997a) developed a scale with seven dimensions (individual psychological, lack of knowledge, facilities/services, accessibility/financial factors, lack of partners, time, lack of interest), although they acknowledge the lack of empirical verification for their model. Upon publication of the scale, the constraints had yet to be investigated in relation to actual participation, having been tested within a sample drawn from a population of students, whose perceptions regarding leisure constraints might not reflect those of the general population. In a comparison of three baseline models of leisure constraints, Casper et al. (2011) identified the scale with seven dimensions as the most appropriate measurement model according to the goodness-of-fit indices.

Research concerning leisure constraints is not restricted to the studies mentioned here. In an effort to represent the operation of constraints in the lives of individuals, Hubbard and Mannell (2001) used structural equation modelling to chart the leisure-constraint negotiation process. Since 2007, models developed by Hubbard and Mannell (2001) have been tested by various authors (Loucks-Atkinson & Mannell, 2007; Son *et al.*, 2008; Stanis *et al.*, 2009). Loucks-Atkinson and Mannell (2007) indicate that individuals who are more motivated to

participate are likely to exert greater effort to negotiate constraints. As reported in a study by Son *et al.* (2008), the negative effects of constraints on participation are almost completely compensated for by the positive effects of negotiation strategies, and the effect of motivation on participation is fully mediated by leisure negotiation. Stanis *et al.* (2009) conclude that negotiation partly mediates the constraint-participation and motivation-participation relationships that support the model developed by Hubbard and Mannell (2001).

Despite a considerable body of research pertaining to leisure constraints, few studies have focused on the leisure constraints of people with disabilities. This gap might be due to a lack of research collaboration between the academic field of leisure and that of disabilities (Aitchison, 2000). Very few studies refer to the barriers faced by people with disabilities or provide recommendations for promoting leisure participation within this population (Tregaskis, 2003; Burns *et al.*, 2009).

Leisure satisfaction is another important aspect in leisure literature. The significance of leisure participation has been well documented. In addition, the ways in which individuals evaluate their own leisure experiences play an important role in their ability to realise the desired physical and psychological effects of these experiences and in their decisions regarding further participation in leisure activities. Leisure satisfaction is one criterion for evaluating leisure experiences that has been extensively examined in leisure literature. Beard and Ragheb (1980) define leisure satisfaction as the positive sensations and feelings that are expressed, achieved and realised by individuals during participation in leisure activities. Leisure satisfaction has been identified as an important domain of human life and has been shown to have a positive impact on life satisfaction (Brown & Frankel, 1993; Nimrod, 2007; Wang et al., 2008). Other concepts that are positively associated with leisure satisfaction include quality of life (Ngai, 2005; Spiers & Walker, 2009), well-being (Broughton & Beggs, 2007), and perceived freedom in leisure (Siegenthaler & O'Dell, 2000; Munchua et al., 2003). In a study involving employed women, leisure satisfaction contributed positively to psychological health (Pearson, 2008). The psychological benefits of participating in recreational activities, especially sport, have also been documented in the literature, albeit without addressing the relationship between leisure and leisure satisfaction (Edwards et al., 2005). Other scholars have examined leisure satisfaction in relation to psychiatric morbidity (Raj et al., 2006), and some studies refer to its positive affect on partner relationships (Berg et al., 2001), and its contribution to marriage satisfaction (Johnson et al., 2006).

One of the most widely used instruments for measuring leisure satisfaction is the Leisure Satisfaction Scale developed by Beard and Ragheb (1980). The instrument consists of subscales for psychological, educational, social, relaxation, physiological and aesthetic factors. The psychological subscale covers the psychological benefits of leisure, addressing such feelings as freedom of choice, self-accomplishment and self-actualisation. The educational subscale examines the extent to which individuals learn about themselves, others and the environment, in addition to their likelihood to try new things. The social subscale covers social interaction, social communication and a sense of belonging, and the relaxation subscale concerns relief from the stress generated from work and everyday life. Issues addressed by the physiological subscale include physical fitness, general health, weight control and increasing energy, and the aesthetic dimension covers aspects relating to the attractiveness and design of environments for leisure activities.

The Leisure Satisfaction Scale (Beard & Ragheb, 1980) has been applied to a variety of populations in various environments. For example, it has been used in a study examining the leisure satisfaction of elderly people, considering variables such as gender, age, marital status, perceived health, ability to drive, type of accommodation and living arrangements (Broughton & Beggs, 2007). Leisure satisfaction and life satisfaction have also been studied with regard to people in the transition period to retirement (Pinquart & Schindler, 2009). In another study on the elderly, the Leisure Satisfaction Scale was used to measure the impact of Internet usage on leisure perceptions (Heo et al., 2011). In a study involving adults with physical disabilities, Kinney and Coyle (1992) identify leisure satisfaction as the most significant predictor of life satisfaction, explaining 42% of the variance in the mean scores for life satisfaction within their sample. Although the Leisure Satisfaction Scale was originally applied to groups other than the population of people with disabilities, it was later applied in a study involving a group of 100 adults with mental illness in an Australian community mental health rehabilitation centre (Lloyd et al., 2001). As recommended by Beard and Ragheb (1980), further tests on the validity of the scale were conducted, finding that participants reported receiving more satisfaction from their leisure activities than was the case with the normative population (Lloyd et al., 2001).

PURPOSE OF THE STUDY

In the past two decades, disability studies have attracted increasing interest in the literature, although few scholars conducting research on people with disabilities have examined leisure experiences within this population (Aitchison, 2000). The investigation of leisure experiences in disadvantaged groups could enhance effectiveness in the planning, provision and management of recreational services (Jackson, 1988). The present study, therefore, examines the leisure constraints and leisure satisfaction experienced by employees with disabilities working in public institutions.

The definition of leisure for people with disabilities differs in some respects from its definition in the context of those without disabilities. First, individuals with disabilities might not have as much freedom as their counterparts without disabilities, given that they sometimes need assistance and care from others during leisure participation. Second, individuals with disabilities are less likely to be employed on a full-time basis than members of the general population, and this obviously has implications for several aspects of the leisure experience. To minimise the differences between people with and without disabilities, the present study concerns people with disabilities who were employed full-time at the time of the research.

METHODOLOGY

Participants

The research population of the study comprised of employees (N=176) with disabilities working full-time in 12 public institutions in the inner city of Antalya, Turkey. With regard to the nature of disability, the composition of the population was as follows: amputated leg (n=22), polio (n=19), multiple sclerosis (n=6), hearing impairments (n=15) and other disabilities (n=38). The entire population was included in the study, and the response rate was

70%. The final sample of respondents (N=123) consisted of 91 men (age: 38.66 ± 8.56) and 32 women (age: 32.84 ± 6.72).

Ethical clearance

The required applications were submitted to the public institutions in which the members of the study population were working, and the necessary permission was obtained. Before the study was conducted, a brief explanation was provided to the entire population of 176 employees with disabilities.

Measures

The questionnaire used in this study comprised 4 parts. The first part was used to collect demographic data on the participants. The second part of the questionnaire concerned the leisure participation of the employees with disabilities. Leisure participation was measured as the frequency of participation in leisure activities per week. The third part of the questionnaire measured leisure constraints according to the Leisure Constraints Questionnaire, developed by Alexandris and Carroll (1997a), and adapted to the Turkish context through back-to-back translation (Karaküçük & Gürbüz, 2006). The adapted tool was further validated by Gürbüz et al. (2010). Items were measured along a 4-point Likert scale ranging from 1 (not important) to 4 (very important). The original 29-item scale contained the following subscales: (1) individual psychological factors; (2) lack of knowledge; (3) facilities/services; (4) accessibility/financial factors; (5) lack of partners; (6) time; and (7) lack of interest. The Turkish version of the scale was analysed for reliability and validity. Principal component analysis with varimax rotation revealed 27 items loaded with weights exceeding 0.40. Two items were deleted due to low factor loadings. The final Turkish version of the scale thus consisted of 27 items, distributed across the following 6 subscales: (a) facilities/services and accessibility [8 items]; (b) social environment and lack of knowledge [5 items]; (c) individual psychological factors [4 items]; (d) lack of partners [3 items]; (e) time [4 items]; and (f) lack of interest [3 items]. Taken together, the items in this scale explained 55% of the variance. The internal consistency (Cronbach's alpha scores) of the subscales ranged from 0.67 (time) to 0.82 (lack of knowledge), and an internal consistency score of 0.84 was achieved for the entire Leisure Constraints Ouestionnaire (Karakücük & Gürbüz. 2006). In this study of employees with disabilities, the internal consistency values of the subscales were 0.73, 0.77, 0.80, 0.81, 0.50 and 0.80 respectively, with an internal consistency score of 0.87 for the entire questionnaire. To determine the suitability of factor analysis for the dataset, the sample was first checked by computing the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests of sphericity. According to the explanatory factor analysis with principal components procedure, the items were distributed around 6 factors, with an explained variance of 60.32%.

In the fourth part of the questionnaire, the leisure satisfaction of the participants was measured using the Leisure Satisfaction Scale, which was developed by Beard and Ragheb (1980) and adapted to Turkish by Karlı *et al.* (2008). The original scale consisted of 51 items, distributed across the following 6 subscales: psychological; educational; social; relaxation; physiological; and aesthetic factors. The items were measured along a 5-point Likert scale: 1 (almost never true for me); 2 (seldom true for me); 3 (sometimes true for me); 4 (often true for me); and 5 (almost always true for me). After factor analyses, the Turkish version of the

scale consisted of 6 factors and 39 items, explaining 45.27% of the variance. The subscales were as follows: (a) psychological factors [8 items]; (b) educational factors [9 items]; (c) social factors [8 items]; (d) relaxation factors [4 items]; (e) physiological factors [6 items]; and (f) aesthetic factors [4 items] (Karlı *et al.*, 2008). The internal consistency (Cronbach's alpha) scores for the subscales of the Turkish version were 0.86, 0.84, 0.82, 0.79, 0.82 and 0.79 respectively; with an internal consistency score of 0.92 for the entire satisfaction scale (Karlı *et al.*, 2008). In this study of employees with disabilities, the internal consistency (Cronbach's alpha) values of the subscales were 0.87, 0.89, 0.85, 0.88, 0.87 and 0.81 respectively, with an internal consistency score of 0.96 for the entire scale. According to the explanatory factor analysis with principal component procedure, the items were distributed around 6 factors, with an explained variance of 66.59%.

Statistical analysis

Descriptive data analysis was conducted using means (M) and standard deviations (SD). Before comparing the leisure constraints and leisure satisfaction levels of participants according to gender, age and leisure-participation frequency, the assumptions of normal distribution and homogeneity were tested. Because these assumptions were not met, the non-parametric Mann-Whitney U-test was used. The results were evaluated based on a significance level of p < 0.05.

RESULTS

TABLE 1: GENDER: MEANS AND STANDARD DEVIATIONS OF VARIABLES

Variables	Women M±SD	Men M±SD	Total Group M±SD	z	р
Leisure constraints					
Individual/Psychological	2.80 ± 0.53	2.77 ± 0.70	2.78 ± 0.66	-0.57	0.57
Social environm. & lack of knowl.	3.13±0.55	3.05 ± 0.57	3.07 ± 0.56	-0.79	0.42
Facilities/Services & accessibility	3.08±0.36	3.03 ± 0.45	3.04 ± 0.43	-0.05	0.96
Lack of partners	2.82±0.65	2.74 ± 0.71	2.76 ± 0.69	-0.67	0.50
Time	2.93±0.24	2.99 ± 0.41	2.97 ± 0.37	-1.20	0.23
Lack of interest	2.67±0.53	2.62 ± 0.71	2.63 ± 0.66	-0.74	0.46
Leisure satisfaction					
Psychological	2.24 ± 0.74	2.51 ± 0.92	2.44 ± 0.89	-1.31	0.19
Educational	2.22±1.00	2.52 ± 0.88	2.44 ± 0.92	-1.62	0.11
Social	2.38±0.95	2.84 ± 1.00	2.72 ± 1.01	-2.18	0.03*
Relaxation	2.17±1.03	2.53 ± 1.10	2.43 ± 1.09	-1.55	0.12
Physiological	2.56±0.96	2.76 ± 1.06	2.71 ± 1.04	-0.79	0.43
Aesthetic	2.43±0.98	2.73±0.99	2.65±0.99	-1.32	0.19

^{*}p<0.05

The highest mean scores for leisure constraints were obtained for the subscales 'social environment and lack of knowledge' and 'facilities and accessibility' (Table 1). The lowest mean scores were obtained for the 'lack of interest' subscale of the leisure constraints scale.

The highest mean scores for leisure satisfaction were obtained on the 'social' subscale, and the lowest mean scores were obtained on the subscales for 'psychological factors' and 'educational factors'. The Mann-Whitney U-test was applied to compare the mean scores of the leisure constraints and leisure satisfaction scales according to gender. No significant differences were noted (p>0.05). When the leisure satisfaction subscales were compared according to gender, men were found to have higher mean scores on the 'social factors' subdimension (U=1065, p=0.029, z=-2.183, r=-0.19), where r=z/square root of N, N=total number of cases.

The subscales of leisure-constraints and leisure-satisfaction scales were compared according to age (Table 2). No significant differences were noted in the subscales of leisure constraints (p>0.05). With regard to leisure satisfaction, the mean scores of employees aged 36 years and older were significantly higher than were those of employees younger than 36 on the subscale for 'psychological factors' (U=1456, p=0.040, z=-2.054, z=-0.18).

TABLE 2: AGE: MEANS AND STANDARD DEVIATIONS OF VARIABLES

	Below 36	36 yrs. +		
Variables	yrs. M±SD	M±SD	z	р
Leisure constraints				
Individual/Psychological	2.75±0.61	2.81 ± 0.71	-0.47	0.64
Social environm. & lack of knowl.	3.03±0.64	3.10 ± 0.47	-0.04	0.96
Facilities/Services & accessibility	3.05 ± 0.45	3.04 ± 0.41	-0.51	0.61
Lack of partners	2.80±0.65	2.72 ± 0.73	-0.44	0.66
Time	2.93±0.39	3.01 ± 0.35	-1.55	0.12
Lack of interest	2.59±0.64	2.68 ± 0.69	-0.49	0.78
Leisure satisfaction				
Psychological	2.26±0.75	2.60 ± 0.97	-2.05	0.40*
Educational	2.29 ± 0.88	2.59 ± 0.93	-1.77	0.77
Social	2.59 ± 0.94	2.83 ± 1.05	-1.20	0.22
Relaxation	2.26±1.05	2.59 ± 1.11	-1.58	0.11
Physiological	2.65±0.88	2.76±1.17	-0.24	0.81
Aesthetic	2.60±0.92	2.70 ± 1.05	-0.50	0.62

^{*}p<0.05

The Mann-Whitney U-test was applied to compare the mean scores of the leisure-constraints and leisure-satisfaction subscales according to the frequency of leisure participation per week. Respondents who participated in leisure activities 1 day a week had higher mean scores on the 'individual psychological factors' subscale than those who participated in such activities 2 or more days per week (U=1372, p=0.009, z=-2.624, r=-0.23) (Table 3). The subscales of leisure satisfaction yielded no significant differences with regard to participation frequency (p>0.05).

TABLE 3: WEEKLY LEISURE PARTICIPATION: MEANS AND STANDARD DEVIATIONS OF VARIABLES

Variables	1 Day pw. M±SD	2 Days + pw. M±SD	z	р
Leisure constraints				
Individual/Psychological	2.93±0.60	2.62 ± 0.69	-1.15	0.25
Social environm. & lack of knowl.	3.12±0.52	3.02 ± 0.60	-0.93	0.32
Facilities/Services & accessibility	3.09±0.43	2.99 ± 0.43	-2.62	0.01*
Lack of partners	2.81±0.68	2.71 ± 0.71	-0.68	0.50
Time	3.01±0.37	2.93 ± 0.37	-1.35	0.18
Lack of interest	2.73±0.62	2.52 ± 0.70	-1.23	0.22
Leisure satisfaction				
Psychological	2.51±0.93	2.36±0.83	-0.91	0.36
Educational	2.48±0.95	2.40 ± 0.88	-0.45	0.65
Social	2.66±1.07	2.78 ± 0.93	-0.55	0.58
Relaxation	2.46±1.03	2.40 ± 1.15	-0.52	0.60
Physiological	2.75±1.04	2.66 ± 1.04	-0.35	0.72
Aesthetic	2.72±0.91	2.58±1.07	-1.24	0.21

^{*}p<0.05

DISCUSSION AND CONCLUSION

Based on the results presented above, factors related to the 'social environment and lack of knowledge' and to 'facilities/services and accessibility' pose the strongest constraints to the participation of employees with disabilities in leisure activities. Of the factors investigated, 'lack of interest' appears to play the least important role. These results are similar to those reported by Gürbüz *et al.* (2010), in which volunteer participants aged between 18 and 54 years were most constrained by issues related to 'facilities/services and accessibility'. Similarly, in a study involving individuals with learning disabilities (Reynolds, 2008), the primary barriers to leisure participation were related to expenses, the inability of staff to accommodate personal interests, transport problems and unwelcoming community resources/attitudes. The results of the current study also correspond to those of Alexandris and Carroll (1997b) on a sample from the Greek population, in which 'lack of interest' appeared relatively unimportant, with factors relating to 'time' as the strongest constraint.

The fact that expenses did not pose a strong restraint to leisure participation in the current study is likely to be related to the fact that the participants were employed full-time, and thus more likely to be able to afford the expenses associated with such activities than would be the case for unemployed individuals. For this sample, the strongest constraints were related to the 'social environment and lack of knowledge', the operationalization of which included such items as 'not feeling himself safe', 'not being happy in social environments', 'not knowing where to learn', 'not knowing where to participate' and 'lack of teaching staff'. This result

underscores the necessity of expert staff and a social environment in which people with disabilities can feel safe and welcomed by participants without disabilities.

With regard to leisure satisfaction, 'social' factors played the most important role, while 'relaxation', 'psychological' and 'educational' factors had the least pronounced effects. The results derived from the 'relaxation' subscale are not consistent with those of other studies involving different populations. For example, Yang *et al.* (2008) observed the highest mean scores with regard to the 'relaxation' subscale. In addition, Ardahan and Yerlisu-Lapa (2010) reported that among university students, the 'physiological' subscale yielded the highest mean, with the lowest mean obtained from the 'social' subscale. The differences between the results of this study and those of studies conducted on individuals without disabilities might reflect a situation in which leisure activities offer an important means through which people with disabilities can seek inclusion in society. Hence, they might place more emphasis on the social aspects of leisure activities, as reflected in the following subscale items: 'During leisure activities, I can have social interaction with other people'; 'The people I meet during leisure activities are friendly'.

Another aspect in which the results of the current study differ from those of other studies is gender. The current analysis revealed few gender influences with regard to the leisure participation of employees with disabilities. In contrast, Brown et al. (2001) reported that the majority of women with children expressed a desire to be more active, but were restricted by a combination of structural barriers (lack of time, money, energy) and ideological obstacles (sense of commitment to others). In the same study, women who received social support were better able to negotiate their constraints, as compared to their counterparts who lacked such support (Brown et al., 2001). Other research has indicated that the participation of women in recreational activities is constrained by rigid scheduling, guilt and narrow programming, while social support and the ability to cope with rigid scheduling facilitate the negotiation of such constraints (Dixon, 2009). Henderson (1993) has studied several leisure constraints that are apparently more specific to women, including 'perceived lack of entitlement', 'ethic of care' and 'health and safety constraints'. The ethic of care becomes a constraint as women focus on responsibility and commitment to others. Issues of health and safety might pose a greater constraint on the leisure activities of women than those of men, particularly in light of such issues as sexual assault, crime and violence. In the leisure literature, the importance of negotiating constraints has been highlighted frequently, with many scholars claiming that in some cases, responsibilities associated with children might encourage leisure participation rather than restricting it (Irving & Giles, 2011).

The lack of gender effects in the current results calls for further investigation. Alexandris and Carroll (1997b) reported that for an urban population, the mean scores of women exceeded those of men for the subscales addressing 'individual/psychological factors', 'accessibility/financial factors' and 'lack of knowledge'. In Malaysia, the mean scores of female university students exceeded those of their male counterparts with regard to 'structural' constraints and 'individual psychological' constraints to participation in recreational sport activities (Yusof & Shah, 2007).

The contrast between the current results and those reported in literature might be related to several characteristics specific to the context of Turkey. In Turkish society, the primary duty

of women whether traditional and unliberated or those with open, western ideals, is to be a good wife and a good mother (Koca *et al.*, 2009). Because of these norms, Turkish women (particularly married women) are likely to assign priority to their families, possibly neglecting their own needs, including with regard to leisure activities. More than half of the women employees in our sample were single. This might have decreased constraints that might otherwise be associated with being a woman. For the employees in this sample, disabilities are likely to have been a more important source of constraints than gender. When controlling for gender, the only significant difference in leisure satisfaction was that men had higher mean scores than women on the 'social' subscale. The men in this sample might have placed more emphasis on social inclusion through the support of leisure activities. The literature also contains other studies that report no significant gender differences in leisure satisfaction (Broughton & Beggs, 2007; Ateca-Amestoy *et al.*, 2008; Ardahan & Yerlisu-Lapa, 2010).

The results of the current study also yield no age-related differences in leisure constraints. In contrast, Alexandris and Carroll (1997b) report differences between age groups with regard to the 'time', 'individual psychological' and 'lack of knowledge' subscales, with the highest mean scores observed among the oldest age group (46 to 65 years). In another study, Kleiber and McGuire (2008) conclude that, as individual's age, they might need to restrict their activities to those that are more meaningful. Rather than negotiating constraints, therefore, elderly people can accept the limitations emerging from their constraints and obtain more leisure satisfaction than other people by devoting more effort to leisure participation.

The current results suggest age-related differences with regard to leisure satisfaction, with respondents aged 36 years and older having significantly higher levels of psychological satisfaction. In a study on factors determining leisure satisfaction, Ateca-Amestoy *et al.* (2008) report a U-shaped relationship between age and satisfaction. Instead of a linear relationship between age and leisure satisfaction, a non-linear relationship between these variables were obtained, with leisure satisfaction reaching a minimum mean score at the age of 45. In a study on the elderly, Broughton and Beggs (2007) report no differences in leisure satisfaction when making overall comparisons between age groups, although significant differences were observed between the scores of participants aged 70 to74 years and those aged 80 years and above with regard to the 'physiological' subscale.

In the comparison of leisure constraints according to the frequency of leisure participation per week, mean scores for 'individual/psychological' factors were lower for the group with less frequent participation (one day per week) than they were for the group with more frequent participation (two or more days per week). The mean scores for leisure satisfaction revealed no significant differences according to the frequency of leisure participation. These results are in contrast to those reported in a study involving university students, in which there was a significant positive relationship between leisure participation and leisure satisfaction (Huang & Carleton, 2003). Similarly, in an examination of the leisure behaviour model, including leisure participation and leisure satisfaction, Ragheb and Tate (1993) reported that leisure participation had a positive effect on leisure satisfaction, thus indicating that greater participation in leisure activities increases leisure satisfaction.

In a study on people with lower-limb amputations, Couture *et al.* (2010) report that leisure participation decreased during the post-operative period, although leisure satisfaction remained at a high level. In another study involving people with physical disabilities, leisure satisfaction was identified as having the greatest effect (of all variables investigated) on life satisfaction (Kinney & Coyle, 1992). In the current study, the level of leisure satisfaction was relatively low. Given that leisure satisfaction is presumed to be an important aspect of human life due to its positive relationship with life satisfaction (Brown & Frankel, 1993; Nimrod, 2007; Wang *et al.*, 2008), efforts should be made to increase the leisure satisfaction of people with disabilities.

Increased leisure satisfaction is presumed to encourage people with disabilities to participate more in leisure activities, which are subsequently expected to have a positive effect on leisure satisfaction and, ultimately, life satisfaction. The planning and arrangement of recreational services specifically for people with disabilities and other groups that are at a disadvantage in terms of leisure participation is likely to encourage their ability to cope with leisure constraints and increase their leisure satisfaction. Policymakers and practitioners in this area should not see the impairments of these individuals as constraining their participation in leisure activities. Instead, they should focus on constraints resulting from the inappropriate designation of leisure environments and services for people with disabilities. Ideally, people with disabilities should receive leisure services in a safe and relaxing environment. To maximise social inclusion, services for people with disabilities should be provided in contexts that also include people without disabilities, whenever possible. Improvements should be made to ensure physical access, and staff members working in the leisure services should be educated with regard to the needs of people with disabilities.

Future research should devote greater attention to evaluating the leisure experiences of people with disabilities, and scales should be developed specifically to measure their evaluations of leisure experiences. Finally, the definition of leisure as 'free time' might be less applicable for people with disabilities, as the 'freedom' of their time is likely to be limited by the fact that they sometimes need help and care from others. The integration of leisure studies and disability studies could, therefore, help to develop a more accurate representation of the actual leisure participation of people with disabilities.

As a last remark, it is important to note that the results reported here refer to people with disabilities who were working full-time. It is possible that their experiences could differ from those of people with disabilities who are either unemployed or working only part-time. For this reason, and because of other context-specific factors, caution is advised when generalising these results to other populations.

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Dr Evren TERCAN: Sport Management Department, School of Physical Education and Sports, Akdeniz University, Dumlupinar Bulvari 07058 Campus/Antalya Turkey. Tel.: +90 242 3106807 (W), +90 242 3218795 (H), Fax.: +90 242 2271116, E-mail: evrentercan@akdeniz.edu.tr