

**Promoting Sport Participation in Greece:
Issues and Challenges**

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Abstract

Due to the absence of national sport participation data in Greece, research and information is still limited. The present paper aimed to report on annual sport participation rates and frequency of sport participation, demographic differences, and constraints on sport participation, among young and middle-aged parents in Greece. Three hundred young and middle-aged parents participated in the study. The results indicated low annual sport participation rates and low frequency of sport participation. Females reported higher sport participation rates than males (without the difference being statistically significant), while sport participation significantly decreased among the less educated and older individuals. Finally, lack of time, facilities / services and lack of partner related constraints had the highest mean scores. The implications of these results for developing sport policy and promoting recreational sports are discussed, with reference at the same time on methodological issues.

Keywords: sport participation; demographic differences; constraints on participation

Promoting Sport Participation in Greece: Issues and Challenges

Introduction

Declining levels of sport participation has been a worrying issue internationally in recent years due to the links between physical inactivity and health-related issues, such as obesity, diabetes, and heart disease (Vail, 2007). Providing opportunities for sport and recreation participation is considered today as an important strategy for governments to promote quality of life (Dobbinson, Hayman & Livingston, 2006; Kemperman & Timmermans, 2008). Research has shown that sport and active recreation is associated with multiple physical, psychological and sociological benefits, which are important dimensions of quality of life (Garret, Brasure, Schmitz, Schultz & Huber, 2004). Furthermore, from a socioeconomic perspective, it has been shown that sport participation benefits the economy by reducing medical, rehabilitation and health care costs (Colditz, 1999; Gratton & Taylor, 2000; Vail, 2007), and improved performance in the work place (Kimiecik, Horn, & Shurin, 1996; Warburton, Nicol & Bredin, 2006). Sport participation, should, therefore be promoted in local, national and international levels. This promotion should be based on the understanding of the multiple benefits of sport participation, the study of the recreational needs of individuals, and the provision of appropriate sport and recreation programs.

Research on aspects of sport participation has been popular the last twenty years (see Cushman, Veal & Zuzanek, 2005; Downward, Dawson & Dejonghe, 2009; Van Bottenburg, Rijnen & van Sterkenburg, 2005). Sport participation has been approached by different perspectives, such as psychological (Mannell & Loucks-Atkinson, 2005), sociological (Cerin & Leslie, 2008; Vail, 2007), but also management (Alexandris & Carroll, 1999) and consumer behavior perspectives (Lera-Lopez & Raun-Garate, 2007). Most of the studies aimed to understand individual, societal and market factors that influence sport participation, and inform policy makers on the development of appropriate strategies for sport participation promotion. In the present study we adopted a general consumer decision-making model (Shiffman & Kanuk, 2000) and we tested how socio-demographic factors influence individuals' decision-making for sport participation. For the purposes of this study, sports were defined as physical activities in

which individuals take place during their leisure time. A short presentation of this decision-making model follows:

A Decision-Making Model

A typical consumer behavior model, as discussed by Shiffman and Kanuk (2000) has three major components: a) Input, b) Process and c) Output. Each of these components includes different factors that influence the decision-making process of a consumer, as follows: a) The Input component includes external factors related to the organization (e.g., the sport provider) and its marketing mix and the socio-economic environment. The socio-cultural factors are non-commercial influences related to the family, marital status, gender income, social class and culture. These factors fit also with the notions of economic capital (financial associations, goods and services), social capital (friends, peers, colleagues, religion, and ethnicity) and cultural capital (education, academic qualifications and long-lasting dispositions of

the body and mind, Dagkas & Stathi, 2007); these factors have been discussed in studies with a more social-psychological focus (e.g., Bourdieu, 1984). As will be discussed in the following section, there is empirical evidence from international sport studies that the socio-cultural environment influences both the decision to participate in sport and leisure and the choice of the specific activities (Alexandris & Carroll, 1997, 1998; Kemperman & Timmermans, 2008; Van Bottenburg et al., 2005; Downward et al., 2009); b) The Process component of the model is concerned with how consumers make decisions, and includes internal / psychological factors to consumers. Examples of these factors are motivation, perception, learning, personality and attitudes. In this stage, the consumer recognizes her / his needs (e.g. to participate in sports), makes all the pre-purchase evaluations (e.g., constraints vs. benefits) and the evaluation of alternatives (e.g., participation in other leisure activities), before she / he makes the final decision. A variety of studies in sport and leisure setting have provided support for the role of the internal / psychological factors in an individual's decision to take part in sports and recreation. Finally, the Output component of the model concerns with the actual purchase behavior and the post-purchase evaluation (e.g., satisfaction from participation). In the present study, we examined how factors of the external socio-cultural environment (Input stage) and the internal / psychological environment (individual constraints) influence purchase decisions, which in our case concern with individuals' decision to take part in recreational sports.

In this paper we will first review sport participation studies internationally, emphasizing on the role of the socio-demographic variables in individuals' choices about sport participation, and then we will present the limited sport participation studies conducted in Greece. In the empirical part of the paper, results will be presented about sport participation rates, demographic differences in sport participation, and constraints on sport participation among young and middle-aged parents in Greece. Finally, the paper will conclude with theoretical and applied implications of the results, and reference to methodological issues.

Sport Participation and Socio-economic Influences

In many European countries, such as United Kingdom, Holland, France etc, sport participation data are collected at a national level, giving the opportunity for researchers and policy makers to study trends, set objectives and decide appropriate strategies. The General Household Survey, which is conducted in England every four years, is a good example of a study that presents detailed information about sport participation (UK National Statistics, www.statistics.gov.uk).

Demographic, geographic and socio-economic variables, such as gender, age, marital status, income, occupation, type of household, and place of residence are amongst the variables that were tested against sport participation. Some trends have been revealed by different studies across the world. In the most recent cross-cultural European study, Van Tuyckoma and Scheerderb (2010) presented some interesting findings. First of all, Finland was reported to be the country with the highest participation rates, followed by the Netherlands and Austria. On the other hand, Portugal, Romania and Malta had the lowest sport participation rates. In terms of participation in individual activities, Downward et al. (2009) reported that participation rates are greatest for activities that have a stronger leisure / recreational element (e.g., walking, gardening, stretching, and cycling), and then they rapidly decline through various forms of keep fit activity to more passive activities, such as golf. It is, however, clear that culture plays an important role in the popularity of individual activities across different countries.

In terms of the influence of the socio-demographic environment on sport participation, some trends have been reported. After having made a review of the published studies, Downward et al. (2009) reported that males tend to have higher participation rates and participate more frequently than females. However, there are activities such as fitness, skating, skiing etc., in which females have higher participation

rates. These results are supported by the cross-cultural study of Van Tuyckoma and Scheerderb (2010).

In terms of the relationship between age and sport participation, a negative trend has been reported by Van Tuyckoma and Scheerderb (2010) in the total sample of the European countries. The 15- to 24-year olds are more likely to be active than respondents in all other age categories. Moreover, the odds ratios decrease with increasing age; for example, 15- to 24- year olds are 1.33 (1/0.75) times more likely to participate in sports, compared to 25- to 34-year-olds, 1.57 (1/0.64) times, compared to 35- to 44-year-olds, 1.81 (1/0.55) times, compared to 45- to 54-year-olds, and 1.89 (1/0.53) times, compared to 55- to 64-year-olds. Compared to individuals aged 65 or older, the odds ratio even increase to 2.25 (1/0.39). Similar results were reported in other countries, such as England (Gratton and Taylor, 2000), Australia (Australian Bureau of Statistics, <http://www.abs.gov.au/ausstats>), Canada (Canadian Heritage, <http://www.pch.gc.ca>) and Scotland (The Scottish Government, <http://www.scotland.gov.uk>). In Scotland, for example it was reported that participation in sport drops from around 80% for adults aged 16-24 to about 45% for people over 55 years old. In Australia, of those aged 15–24 years and 25–34 years, 73% and 75% (respectively) participated in the 12 months prior to interview. Participation rates declined with increasing age, with the lowest level (49%) being reported for those aged 65 years and over.

Marital status is one of the variables, in which mixed results have been reported.

Gratton and Taylor (2000) found no significant differences between single and married individuals in terms of sport participation and the same was reported by Van Tuyckoma and Scheerderb's (2010) in the European study. On the other hand, Downward et al. (2009) reported that married individuals tend to participate more than single ones. However, in contrast, Carroll and Alexandris (1997) reported that married individuals participate in sports less than single ones.

Sport participation was also shown to be positively correlated with education level. In Australia it was reported that one of the strongest associations with participation rates was with education level attained (Australian Bureau of Statistics, <http://www.abs.gov.au/ausstats>). Those with tertiary qualifications had a participation rate of 81%, compared with 59% for those whose highest level of attainment was Year 12 or below. Similarly, for those who participated more than twice-weekly, those with tertiary qualifications had a higher participation rate (39%) than those with qualifications

to Year 12 or below (25%, <http://www.abs.gov.au/ausstat>). Similar results have been reported by Downward et al., (2009) and Gratton and Taylor (2000) in England.

Finally, with respect to geographical status, it was reported that, compared to Europeans living in rural areas or villages, individuals living in large towns are more likely (OR = 1.23) to be physically active in their leisure time (Van Tuyckoma & Scheerderb, 2010).

Sport Participation in Greece

Greece is today among the top European countries in terms of obesity and associated diseases, as a result of high physical inactivity levels and unhealthy diet (International Association for the Study of Obesity, <http://www.iaso.org>). Considering that obesity is associated with high medical, rehabilitation and health care costs, it could be realized that the promotion of recreational sport participation in the community should be an issue of high priority in Greece.

Sports in Greece are provided by the public (central and local government), the voluntary and the private (commercial) sectors. There is a general lack of published information regarding the structure, objectives and the economic importance of each sector. Starting from the public sector, The General Secretariat of Sports is the main body that directs sports in Greece. It is under the umbrella of the Minister of Health, Nutrition and Sports, and it is responsible for developing and delivering the sport policy in Greece (Minister of Health, Nutrition and Sports_www.sportsnet.gr). The main objectives of the General Secretariat of Sports include: sport development at a national level, promotion of elite sports, promotion of mass participation, management of indoor and outdoor sport facilities, consulting sport related projects and consulting the sport federations (notional governing bodies of sport). The General Secretariat of Sports is financed by The Central Government Budget, The Greek Organization of Football Prognostics (O.P.A.P.), the Hellenic Horse Racing Organization and the National Investment Programme. Local authorities are mainly responsible for the sport for all programs, in co-operation with the General Secretariat of Sports. The limited published information and data available regarding the promotion of mass participation in Greece indicates that: a) there is a lack of a detailed policy formulation by the central government, b) there is no strategic approach to the planning and promotion of sports, and c) there is no performance review system, based on research findings, in order to evaluate the effectiveness of the strategies proposed.

The voluntary sector is represented by sport clubs, which are financed by their members' subscriptions and by the General Secretariat of Sports, through funds given by their sport federations. The amount of financial help that they take depends mainly on the success of the clubs in promoting sports for excellence (number of elite athletes). This is a limitation of the system, since it works against the promotion of mass participation. However, the last couple of years the contribution of voluntary sport clubs to the promotion of mass participation have been increased. Voluntary sport clubs are today the major providers of children sport programs, which are growing fast. Sport, leisure and health indoor and outdoor facilities are managed by the private sport sector in Greece. Although profitability is always, the major objective of the commercial sector, its contribution in the provision of sport opportunities is important. It is estimated that around 3-5% of the adult population are members of private sport, health and fitness clubs.

Greece is one of the countries that do not collect sport participation data at a national level. Subsequently, information about sport participation is limited, mainly based on local studies, conducted by individual researchers. This is a problem in any attempt to promote sport participation, by setting objectives and designing appropriate studies. It also makes any attempt to place Greece in cross-cultural studies difficult, due to the methodological differences of the data collection methods. Using the family life-cycle (Shiffman & Kanuk, 2000), the present study aimed to study recreational sport participation issues among two specific groups of the general population: young married individuals with children, and middle-aged married individuals with children. The family life-cycle is used by sociologists and consumer researchers in order to describe the progression of stages through which many families pass. It starts with bachelorhood, moving on to marriage (and the creation of the family), then to family growth (with the birth of the children), to family contraction (as grown children leave the household) and ending with dissolution of the basic unit (Shiffmand & Kanuk, 2000). The family life cycle has been used in consumer behavior studies in order to study the consumer patterns of the families belonging to different stages in the cycle, but it has been limited used for the study of sport participation. We selected the two specific groups because previous studies have shown that parents with young children have low sport participation rates in Greece (Alexandris & Carroll 1997; 1998). Furthermore, these two groups should be targeted to participate in family sport programs, which have been proposed as a good strategy for promoting recreational sport participation (Shaw & Dawson, 2001).

The issue of sport and recreation participation, as part of health promotion, has not received significant attention by the central government in Greece. As a result, there is a lack of national data on sport participation and published statistics and information. Some conclusions, however, can be drawn based on two studies, which have been conducted so far using general (adult) population: The first study was conducted by Alexandris & Carroll (1997; 1998), who collected data from an urban area in Greece, through a household survey. The second study is a commercial one, conducted by ALCO (2010), with a national sample, through a telephone survey. Some conclusions can be drawn based on these two studies: First of all, they both indicated that sport participation rates are low, compared with other European countries. Non-participation ranges from 45% (Alexandris & Carroll, 1998) to 54% (Alco, 2010). Both the studies indicated that married individuals, and especially those with young children, have lower participation rates than single individuals. It should be noted that family sport programs are still at the early stages in Greece. The provision of the family sport programs has been proposed to be a good strategy for sport participation promotion (Shaw & Dawson, 2001). Furthermore, in the study of Alexandris and Carroll (1998) it was reported that males participated more than females in sports. However, this trend seems to have been reversed the last couple of years. Both the studies also indicated that sport participation significantly decreases with advancing age. The percentage of physical inactivity of older people in Greece is amongst the highest in the European Union, since less than 9% of individuals older than 65 years old reported regular physical activity participation. This is a very much worrying finding, considering the aging of the population in Greece. Finally, the results also indicated that sport participation is associated with the level of education. More educated individuals have higher participation rates than less educated ones.

The issue of sport inactivity has been studied with the application of different theoretical models. One of the most popular theories that have been recently used in the leisure literature has been the leisure constraint theory (Jackson, 1991; Mannell & Iwasaki, 2005). Constraints have been defined as factors that limit or block participation in leisure, or preferences for participation in specific activities (Jackson, 1991). It has been proposed (Crawford, Jackson & Godbey, 1991; Jackson, 1991) and empirically supported (Alexandris, Tsorbatzoudis & Grouios, 2002) that constraints are categorized into intrapersonal, interpersonal and structural. Intrapersonal constraints are internal to an individual, related to psychological states and attributes. Interpersonal constraints are related to an individual's inability to find partners to participate with, while structural

constraints are external to an individual, and include factors related to lack of resources, facility, and financial problems. The hierarchical model of leisure constraints further proposed that intrapersonal constraints are the most powerful predictors of participation, while the structural ones are the least powerful (Alexandris et al., 2002; Alexandris & Stodolska, 2004; Jackson, 1991; Mannell & Loucks-Atkinson, 2005).

With reference to Greece, there have been some studies that applied the theory of leisure constraints (e.g., Alexandris et al., 2002; Carroll & Alexandris, 1997, Alexandris & Carroll, 1997ab). A review of these studies reveals some clear patterns. First of all, there is a demand for sport participation among non-participants. Second, the individual / psychological constraints are the most powerful predictors of sport participation. Furthermore, the individual psychological constraints were shown to be more influential for females, individuals with lower level of education and older individuals. The studies also reported that problems related to lack of time and limited sport and recreational facilities cited as important ones by individuals. Finally, increased motivation has been shown to be an important factor for the successful negotiation and overcoming of leisure constraints. These findings supported aspects of the hierarchical model of leisure constraints, proposed by Jackson (1991).

Considering the limited research on sport participation issues in Greece, and the need for sport participation promotion, the objectives of the present study were: a) to present sport participation rates among young and middle aged parents; b) to compare sport participation for different demographic groups c) to investigate the most important constraints on recreational sport participation.

Methodology

Sample

As previously noted the study population was young and middle aged married individuals with children. According to Shiffman & Kanuk (2000), these parents usually belong to the age range of 31 to 52; they tend to be better educated, more affluent and more socially aware. Furthermore, their children often become the main focus of their life and they are willing to spend money for their education. The sample of the current study consisted of three hundred (N=300) parents, aged between 31 and 55 years old (mean age 38.8 years old). The data were collected by two local authority sport centres, in which parents have registered their children to participate in sport programs. None of these local authorities have sport family programs. The parents were approached and

asked to fill the questionnaires while waiting in the cafeterias of the sport centres. In terms of the demographic data, 59% of participants were males and 41% were females. Almost 50% of the sample was individuals with high level of education (university graduates). Finally, almost 35% of the sample was employees working in the private sector and another 31% were public sector employees. The demographic information of the sample is presented in

Table 1.

Table 1. Demographic Characteristics of the Sample (%).

Gender Groups		Age Groups		Educational level		Occupation	
Males	59.3	31-35	23.3	Primary level	6.7	Private sector employee	34.3
Females	40.7	36-40	38.0	Secondary level	43.6	Public sector employee	30.7
		41-45	21.0	University level	49.7	Self employee	13.7
		46-55	8.7			Unemployed	2.3
						Housekeeper	15.0

Questionnaire

Constraints on sport participation were measured with the leisure constraints scale developed by Alexandris & Carroll (1997), this scale has been used in a series of studies in Greece (e.g. Alexandris & Carroll, 1997ab; Alexandris et al., 2002) and has shown to be reliable and valid. They were asked to evaluate the importance of 29 statements as limiting factors for their sport participation. These twenty nine items measure the following constraint dimensions: Lack of time, Lack of Interest, Individual / Psychological, Lack of Knowledge, Lack of Partners, Facilities / Service Problems. A seven point Likert-type scale ranging from very important (7) to not important (1) was used.

Process

Respondents were asked if they had participated in recreational sporting activities within the past year. The one year reference period was judged to be more appropriate than the 4 week period, in order to account for seasonal participation and infrequent participants (Matheson, 1991). Non-participants were further asked to report if they would be interested in starting taking part in sports in the future (latent demand). The term "sport" was defined as sporting activities that take place during leisure time (recreational sports). It was based on the list of sport activities developed by Alexandris

and Carroll (1997ab, 1998) and Alexandris et al. (2002). Self-reported measures of sport participation were used, which should be considered in any attempt to generalize the findings. It has been shown that self-reported methods of participation might suffer from a response error, which is the difference between actual and reported participation (Chase & Harada, 1984). However, they have been used in the vast majority of published studies in the area of sport and leisure participation (e.g., Alexandris et al., 2002, Hubbard & Mannell, 2001; Raedake & Burton, 1997).

Statistical Analysis

Descriptive statistics (frequencies) were used to present sport participation rates and frequency of sport participation. The differences in sport participation between and among the demographic variables were tested with cross tabs, since both the variables (dependent and independent) are nominal.

Results

Annual Sport Participation Rates

The results indicated that 65.3 % of the responders never participated in any sport activities during the previous year that the research was conducted. In terms of the frequency of sport participation, 9.4 percent participated at least once a year, 58.3 percent participated at least once a month, and 32.3 percent participated on a weekly basis (Table 2).

Table 2. Annual Sport Participation Rates and Frequency of Sport Participation.

Sample		Sport Participation	
Participants		34.7%	
Non-Participants		65.3%	
		Frequency	
Participation	At least once a year	At least once a month	Weekly
All participants (34.7%)	9.4%	58.3%	32.3%

Demographic Differences in Sport Participation

In order to investigate the relationship between recreational sport participation and demographic characteristics, the demographic groups were cross-tabulated against participation / non-participation. The results indicated statistical significant differences in

sport participation among the age groups ($\chi^2 = 15.9$ $p < .001$) and educational groups ($\chi^2 = 8.26$ $p < .05$). Sport participation decreased with advancing age and among the less educated individuals. Non-statistical significant differences were found between males and females and among for the different occupation groups (Table 3).

Table 3. Sports Participation by Demographic Characteristics (%).

Gender Groups		Age Groups		Educational level		Occupation	
Males	39.4	31-35	35.3	Primary level	22.2	Private sector employee	27.4
Females	60.6	36-40	48.2	Secondary level	32.3	Public sector employee	42.1
		41-45	11.8	University level	45.5	Self-employed	14.7
		46-55	4.7			Unemployed	4.2
						Housekeeper	11.6
$\chi^2 = 1.71$, n.s.		$\chi^2 = 15.9$ $p < .001$		$\chi^2 = 8.26$ $p < .05$		$\chi^2 = 8.55$, ns	

Demographic Differences in the Frequency of Sport Participation

A cross tabulation of the demographic groups against the three different sport participation levels, revealed statistical significant differences only in the education variable ($\chi^2 = 15.7$, $p < .005$). More educated individuals were shown to be more frequent participants than the less educated one (Table 4).

Table 4. Frequency of Sport Participation by the Demographic Groups (%).

Gender Groups	Frequency		
	At least once a year	At least once a month	Weekly
Males	15.0	55.0	30.0
Females	8.5	59.3	32.2
$(\chi^2 = 1.02$ n.s.)			
Educational level			
Primary level	20.0	60.0	20.0
Secondary level	11.1	55.6	33.3
University level	10.2	59.2	30.6
$(\chi^2 = .72$ n.s.)			
Occupation			

Private sector employer	15.4	46.2	38.5
Public sector employer	7.5	62.5	30
Self-employed	0	84.6	15.4
Unemployed	0	75	25
Housekeeper	0	60	40
(χ ² =8.22 n.s.)			
Age Groups			
31-35	14.8	55.6	29.6
36-40	45.5	39.6	51.9
41-45	15.4	53.8	30.8
46-55	0	87.5	12.5
(χ ² =4.15, n.s.)			

Constraints on Sport Participation

The descriptive statistics indicated that respondents scored higher in the lack of time related constraints (Mean, 4.3), followed by the facilities / services (Mean, 3.8) and lack of partners (Mean 3.6) dimensions (Table 5). A comparison among the three participant groups against the constraint dimensions indicated statistically significant differences in the individual / psychological (F=5.31, p<.05) and lack of partners (F=3.26, p<.05) dimensions. Post hoc (Scheffe's test) analyses indicated that in the individual / psychological constraints the infrequent participants had statistical significant higher scores than both the weekly and monthly level participants, while in the lack of partner dimension the infrequent participants had statistical significant higher scores than the weekly level participants (Table 6).

Table 5. Scores in the Constraint Dimensions and Reliability Analysis.

	Constraints	Mean	SD	Cronbach's a	Items
Intrapersonal	Lack of interest	3.0	8.5	.80	6
	Individual/ Psychological	3.0	8.7	.69	7
	Lack of knowledge	2.8	5.1	.87	3
Interpersonal	Lack of partners	3.6	5.7	.87	3
Structural	Facilities/Services	3.8	10.7	.83	7
	Lack of time	4.3	4.6	.70	3

Table 6. Constraints and Frequency of Sport Participation (ANOVA).

Constraints	Frequency			<i>F</i>	<i>p</i>	Post-hoc
	At least once a year	At least once a month	Weekly			
Lack of time	4.0 (1.34)	3.92 (1.24)	3.40 (1.32)	1.85	n.s.	
Individual/ Psychological	3.50 (.70)	3.03 (1.12)	2.39 (1.14)	5.31	.05	(1-3)
Lack of knowledge	2.36 (1.34)	3.11 (1.60)	3.05 (2.11)	.85	n.s.	(2-3)
Facilities/Services	3.36 (1.31)	4.12 (1.54)	3.50 (1.97)	1.89	n.s.	
Lack of partners	3.96 (1.41)	3.63 (1.84)	2.69 (1.92)	3.26	.05	(1-3)
Lack of interest	3.21 (1.43)	3.27 (1.36)	2.70 (1.48)	1.66	n.s.	

Discussion and Conclusion

The present paper aimed to report on sport participation data among young and middle- aged parents, considering at the same the influence of demographic characteristics, as proposed by a general consumer decision-making model, proposed by Shiffman and Kanuk (2000).

Sport Participation Rates

First of all, sport participation rates were found to be low compared with other European countries (Van Bottenburg et al., 2005). These results confirm the studies of Alexandris and Carroll (1997) and ALCO (2010), which are the only ones that investigated sport participation in general population in Greece. Downward et al. (2009) argued that differences in the Gross Domestic Product (GDP) can account for the variation in participation rates in across Europe and can act as a driver. Considering that Greece has a relatively low GDP among the EU countries (European Commission, <http://epp.eurostat.ec.europa.eu>), this might be one of the reasons related to the low participation rates.

It is, however, positive that the results also indicated that there is a latent demand for sport participation. More than 60% of the non-participants reported that they are interested in starting taking part in sports. Considering the health and economic benefits of sport participation (Gratton & Taylor, 2000), and its influence on the quality of life (Dobbins et al., 2006), it could be proposed that the central and local government in Greece should take actions in order to promote recreational sport participation. We propose that the emphasis should shift from elite sports to recreational sports, with the

provision of public funds towards this direction. A review of sport policies in UK, Australia and Canada, in which the emphasis of sport policy was traditionally towards raising general physical fitness and social welfare, could help towards this direction (Downward et al., 2009). The provision of sport family programs might be a starting point, especially for the young and middle aged parents. The development of community approaches to sport participation promotion might also be a very a good suggestion towards this direction. As Vail (2007) discussed, the fundamental element of all community development initiatives is about people helping people improve their life conditions by addressing common interests.

In terms of the frequency of sport participation, the results indicated that the vast majority of participants (almost 70%) are infrequent participants; it is, therefore, doubtful if they enjoy the benefits of sport participation, due to their limited participation frequency. On the other hand, it is positive that there is a certain group (33% of the participants), who are frequent (weekly) participants. This group should be further studied and can be used as a pilot for increasing sport participation among the rest of the population.

Demographic Differences in Sport Participation

The results provided support for the role of socio-demographic environment, as proposed by Shiffman and Kanuk (2000) decision-making model, on individuals' decision to take part in sports. Sport participation was shown to be higher among the most educated individuals. This supports previous findings in Greece and other countries (e.g., England, Holland, Spain etc., see Downward et al, 2009; Van Bottenburg et al., 2005). More educated individuals have a better understanding of the benefits of active recreation; education is also related with occupation and income, which are also related with sport participation. It has also been proposed that educational attainment may also be associated with greater exposure to health messages, instilling higher levels of perceived benefits of physical activity, and a greater capacity to seek, understand, internalize, and act upon these messages (Cerin & Leslie, 2008). Education is also related with social stratification. It has been reported that poor social conditions could contribute to low levels of physical activity (Lindstrom, Hanson and Ostergren, 2001). It could be argued that the notions of economic capital (financial associations, goods and services) and cultural capital (education, academic qualifications) can be used for further understanding these results (Bourdieu, 1984; Dagkas & Stathi, 2007).

Since the age range of the sample was specific (32-55), we do not have data to report on sport participation among older individuals (e.g., +65). However, sport participation was shown to significantly decrease after the age of forty years old. This is a worrying finding; the age of forty might be the starting point for the drop out of sport participation. Individuals more than forty years old should, therefore, specifically be targeted in order to continue taking part in sports.

In terms of the role of gender in sport participation, the results indicated that the gap in sport participation between females and males, which has been reported previously in Greece (Alexandris & Carroll, 1997a, 1998) and other countries (Downward et al., 2009), has closed with reference to the specific sample of the study. In fact, females have higher sport participation rates than males (without the difference being statistically significant). The role of young and middle-aged married women in the Greek society has changed the last ten years. Women today have their own jobs; they are financially independent and can make their own decisions about the use of their leisure time.

Constraints on Participation

Van Bottenburg et al. (2005) argued that European patterns of sport participation could be accounted for by social-psychological and sociological theory accounting for the interaction between personal, interpersonal and environmental factors. The results of the present study supported this argument, since demographic factors plus intrapersonal, interpersonal and structural constraints were shown to influence sport participation. The results revealed high scores in the lack of time, facilities / services, and lack of partner dimensions. The high scores in the lack of time dimension is expected, considering the family and professional obligations of young and middle aged parents. This supports previous findings in Greece and other countries (Alexandris & Carroll, 1997; Raedeke & Burton, 1997). Although not tested in this study, socio-economic differences in the perception of constraints can further give information on the decision-making process of sport participation. It has been suggested that internal barriers, such as lack of motivation are more common in higher socioeconomic groups, while external barriers, such as lack of money, lack of transport or illness/ disability, are more common in lower socioeconomic groups (Lindstrom et al. 2001).

Once again, the development of community sport programs and the provision of family sport programs might be among strategies for overcoming these constraints. The

high scores in the facilities / services dimension support our argument that mass participation has not been adequately promoted by central and local government in Greece. The transfer of public funds towards the promotion of mass participation and the provision of sport facilities and services accessible to the public is a prerequisite in order for recreational sport participation to be promoted. Finally, the high scores in the lack of partners dimension shows that many parents do not have company to participate with in sport activities. Once again sport organizers should facilitate the social aspect of sport participation.

Lindstrom et al. (2001), suggested that the improvements of the physical environment, physical exercise in groups instead of individuals, as well as community and workplace policies may promote increased physical activity in

a population. The same authors also proposed that Government support of youth sports organisations is an example of public health policies to promote physical activity not only among youths and adolescents, but also among adults later in life, since research has shown that physical activity in early life predicts adult sport participation (Yang, Telama, Leino, and Viikari, 1999).

The results also indicated that those who participate infrequently have significant higher scores in the individual / psychological and lack of partners dimension. The individual / psychological are intrapersonal constraints, while the lack of partners are interpersonal constraints. These results provide once again support for the hierarchical model of leisure constraints (Jackson, 1991). They also propose that if participation is to be increased, strategies should be developed for the removal of intrapersonal and interpersonal constraints. Intrapersonal constraints can be removed with the provision of appropriate sport programs that that fit with the individual needs of participants (e.g., programs for beginners), the psychological support of participants (e.g., through personal training) and the provision of sport education. Lack of partners related constraints can be removed with the promotion of the social aspect of participation, through group sports, celebrations, social gatherings and parties (Alexandris & Carroll, 1998).

In conclusion, the present study provided evidence that recreational sport participation rates among young and middle aged parents in Greece is low. Education, gender and age were shown to be amongst the factors that relate with sport participation rates. Both external and internal constraints were shown to influence sport participation rates, supporting previous studies in Greece (e.g., Alexandris and Carroll, 1997). These

results provide some explanation for the high obesity levels that have been reported recently in Greece (International Association for the Study of Obesity, <http://www.iaso.org>) and support our argument that the emphasis of sport policy in Greece has been towards the promotion of elite sports against the promotion of recreational sports. Promoting recreational sports should be amongst the main priorities of social and health policies in Greece today.

Methodological issues and Limitations

Since this study used a specific sample (young and middle aged parents), results cannot be generalized in the general population. It will be interesting, however, to further apply the family life-cycle and study sport participation in more groups, belonging to different stages of the cycle. Such studies have not been conducted so far. Furthermore, the use of more socio-economic and psychological variables that have been proposed in the decision-making model used in this study (Shiffman & Kanuk, 2000), such as socio-economic status, culture and subculture, motivation and attitudes could further improve our understanding of recreational sport participation in Greece. Due to the specific characteristics of the sample, the results cannot also be used for cross-cultural comparisons. Having samples with the same characteristics and following specific sampling processes are prerequisites, for comparing studies between and among different countries.

The measurement of sport participation is also an important issue. The annual sport participation rate was used in the present study, in order to catch for infrequent participants, as well. However, weekly sport participation rates have also been used by other studies, such as the GHS in England. Studies that use the annual sport participation rates tend to inflate participation rates. The self-reported measure of sport participation, which was used in the present study, can also result in inflated sport participation rates.

Finally, the definition of sports is a last methodological issue that should be considered. In this study sports were defined as physical activities in which individuals take place during their leisure time. The inclusion in the sport list of physical activities, such as walking, dancing etc. is an issue that should be discussed. A standardized definition of sports should be adapted in future studies in order for researchers to be confident to compare results of different studies.

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