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Leisure constraints among Turkish families: a multi-level approach

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ABSTRACT

Despite the increase in the number of recreational facilities in Turkey, participation in leisure activities is still low. It is essential to understand the reasons behind the lack of participation in leisure activities to build better programs. The purpose of this research is to analyze the influence of leisure constraints and motivation on the intention to participate in physical and social leisure activities among Turkish families. Data were collected from a total of 420 individuals from 122 families. Hierarchical Linear Modelling was applied to analyze the data at both the individual and family levels. Results showed that while motivation has a significant influence on constraints and intention, constraints do not influence intention. The significance of the relationships on the family level revealed the influence of family members on each other with regards to motivation, constraints, and intention. The results also supported that study participants prefer social activities over physical ones.

RÉSUMÉ

Malgré l'augmentation du nombre d'installations de loisir en Türkiye, la participation aux activités de loisir reste faible. Il est essentiel de comprendre les raisons de ce manque de participation aux activités de loisirs afin d'élaborer de meilleurs programmes. L'objectif de cette étude est d'analyser l'influence des contraintes liées aux loisirs et de la motivation sur l'intention de participer à des activités de loisirs physiques et sociales chez les familles turques. Les données ont été recueillies auprès de 420 personnes issues de 122 familles. La modélisation linéaire hiérarchique a été employée pour analyser les données au niveau de l'individu et de la famille. Les résultats ont montré que même si la motivation a une influence significative sur les contraintes et l'intention, les contraintes n'influencent pas l'intention. L'importance des relations au niveau familial a révélé l'influence des membres de la famille les uns sur les autres en ce qui concerne la motivation, les contraintes et l'intention. Les résultats confirment également que les participants préfèrent les activités sociales aux activités physiques.

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Introduction

Leisure time is defined as the time left from work, individual, and social responsibilities (Brightbill, 1960), the portion of time when people act as they wish as well as the activity (Veal, 1992) and the way of escaping from daily routine and responsibilities (Coşkun, 2022). Engaging in social and physical leisure activities during leisure time improves the quality of life and social well-being of individuals and families (Agate et al., 2009; C. J. Hodge et al., 2018; Johnson et al., 2006). The Turkish Statistical Institute (TUIK) has implemented survey among Turkish people to assess the rate of participation in leisure activity in two timeframes; 2006 and 2015.

(TUIK, 2006a, 2006b, 2015). The first report indicated that the most common leisure activities among Turkish people are walking (12.8%), going to a picnic (10.3%), and going to the movies (8%) (TUIK, 2006a). The report also indicated that less than 3% engage in cultural activities in their leisure time. The participation rate in social activities, such as going to fairs, festivals, pubs, and bars, is also under 3% (TUIK, 2006b). The results of the later report indicated that the most common leisure activities are watching TV (96.4%), visiting relatives (69.9%) and friends (55.7%) The difference of this report from the previous one is that spending time on social media is also counted as leisure activity. The most common physical activities are walking (9.9%), playing football (5.2%), and cycling (2.2%). (TUIK, 2015).

The statistics on cultural and social leisure activities among Turkish people are not updated, and the statistical information on the participation rate in physical leisure activities is rather limited. People have been resistant to engaging in physical activities provided by recreational facilities. The number of people per gym is 227 in Turkey, while this number is on average over 600 in developed countries (Kuburlu, 2015).

It is essential to understand the underlying reasons for the low level of participation in social and physical activities to encourage leisure activity participation and promote a more active lifestyle among Turkish people. According to the Turkish Ministry of Health (2010), 20% of men and 41% of women are obese; the obesity ratio among children under age 5 is 8.5% and 8.2% among citizens ages 6 to 18. The situation is similar worldwide. According to World Health Organization (WHO), worldwide obesity has tripled since 1975, in 2016 39% of adults aged over 18 were overweight and 13% were obese (World Health Organization, 2021). An understanding of the obstacles that Turkish people experience to participate in social and physical leisure activities will be helpful to mitigate these constraints and promote a more active lifestyle. The Theory of Leisure Constraints, a strong conceptual base to analyze this situation, is based on the argument that intrapersonal, interpersonal, and structural constraints are significant obstacles preventing people from participating in leisure activities (Crawford &

Godbey, 1987; Crawford et al., 1991; Jackson et al., 1993). The current study aims to analyze the influence of leisure constraints and motivation on the intention to participate in leisure activities among Turkish families and to provide a better understanding of leisure activity participation and its antecedents by applying a multi-level approach analysis.

Literature review

Family leisure

The family is the smallest unit in a society. Considering the close proximity of the members, their influence on each other's behaviour is inevitable. The quality of family life is determined by various factors, one of which is family leisure (C. J. Hodge et al., 2018). The positive role of family leisure on family life satisfaction was supported in many empirical studies (e.g. Agate et al., 2009; Amato et al., 2016; C. J. Hodge et al., 2018; Zabriskie & McCormick, 2003). The main aim of these studies was to provide an understanding of the relationships between variables such as leisure involvement, leisure satisfaction, and marital satisfaction. The influence of leisure involvement on satisfaction with family life was found significant across different samples in the U.S.A (Agate et al., 2009; Amato et al., 2016; C. J. Hodge et al., 2018; Johnson et al., 2006; Zabriskie & McCormick, 2003). While some studies reflect both the parents' and children's perspectives (Agate et al., 2009; C. J. Hodge et al., 2018), others focus only on married couples (Johnson et al., 2006). Whether from the perspective of parent or child, the results of these studies are consistent. Family leisure activities contribute to satisfaction with family life as well as family functioning and satisfaction with family leisure. It is undeniable that the activities done by the whole family together have influence on family well-being (Agate et al., 2009; Zabriskie & McCormick, 2001).

Another limitation in the family leisure research is the background of research participants. While the focus in a majority of the studies is on white families, only a few of them have studied samples from Eastern countries (C. Hodge et al., 2015). In their extensive literature review on family leisure, Trussell et al. (2017) stated that family leisure has been dominated by Global North scholarship. While most of the studies focusing on family leisure were conducted in U.S.A, there are a handful of studies in other Western countries, such as New Zealand, Canada, Australia, and the UK (C. J. Hodge et al., 2018) and some recent studies on Eastern countries such as Russia and Turkey (Aslan, 2009; Williamson et al., 2019). Interestingly the results are consistent among Western and Eastern countries. However, the number of studies in Eastern countries is still limited for making such comparisons. Since the behaviour of family members is closely dictated by cultural norms,

more research in different cultures is needed. As a country located between West and East, Turkey offers a compelling case for the study of family leisure behaviour.

Leisure constraints

The Theory of Leisure Constraints was originally conceptualized by Crawford and Godbey (1987) four decades ago and has evolved a great deal since then. In the earliest version, authors categorized leisure constraints as intrapersonal, interpersonal, and structural. ‘The intrapersonal barriers involve individual psychological states and attributes which interact with leisure preferences rather than intervening between preferences and participation’ (Crawford & Godbey, 1987, p. 122). Lack of confidence or low self-esteem are some examples of intrapersonal barriers. ‘Interpersonal barriers are the result of interpersonal interaction or the relationship between individuals’ characteristics’ (p. 123). The lack of activity partners or the difficulty in finding a common interest with a family member or friend are some examples of interpersonal barriers. ‘Structural barriers represent constraints as they are commonly conceptualized, as intervening factors between leisure preference and participation’ (p.124). Lack of facilities or financial issues are some examples of structural barriers.

In later research, Crawford et al. (1991) claimed that the nature of constraints is hierarchical, starting from the most proximal (intrapersonal) to the most distal (structural). The evidence supporting this argument is limited in the literature; while some studies supported the hierarchical nature (Walker et al., 2007), others have produced contradictory results (Hawkins et al., 1999). The leisure constraints research among Turkish population is relatively new, with few studies focusing on leisure constraints, especially among families (Erkip, 2009; Gürbüz & Henderson, 2014; Hacıoğlu et al., 2005). The research is in its early stages to make such assumptions, so the current study does not account for the hierarchical nature of constraints.

Motivation

Leisure constraints are strong predictors for participation in leisure activities (Alexandris et al., 2002; Hubbard & Mannell, 2001; Stodolska et al., 2019). However, the presence of constraints does not necessarily inhibit leisure participation. Under the presence of constraints, participation in leisure activities is still possible if one can negotiate the constraints (Hubbard & Mannell, 2001; Jackson et al., 1993). In their empirical research, Hubbard and Mannell (2001) tested four different models to draw a relationship between motivation, negotiation, constraints, and leisure

participation. The only significant model was the constraints-effect mitigation model. In this model, while constraints had a negative direct and a positive indirect impact through negotiation on participation, motivation had an indirect impact on participation through negotiation. Negotiation mediates the relationships between motivation and participation, and constraints and participation; the impact of constraints is mitigated by negotiation. For example, Crompton and Kim (2004) revealed that people with higher motivation could handle structural constraints to visit national parks better than people with lower motivation. Alexandris et al. (2002) tested the relationship between motivation and leisure constraints on recreational sports participation. The results showed that only intrinsic motivation has significant influence on constraints.

Leisure constraints in non-western countries

Unlike Western developed countries, leisure in developing countries is associated with laziness, a waste of time, and sedentary activities such as watching TV (Adam et al., 2015). The lack of leisure participation among people living in developing countries can have many reasons such as low income and education level, lack of family support, lack of time, and limited access to facilities (Gürbüz & Henderson, 2014; Kruger & Douglas, 2015; Uvinha et al., 2017; Stodolska et al., 2019). Therefore, an analysis of intrapersonal, interpersonal, and structural constraints will be helpful to understand underlying factors of low commitment to leisure activities. Leisure constraints cannot be discussed separately from the cultural and social aspects of people's lives (Livengood & Stodolska, 2004).

Research has supported the presence of intrapersonal constraints among people who are Chinese, Greek, Brazilians, and Turkish. In their cross-cultural study, Walker et al. (2007) showed that Chinese people were more intrapersonally constrained compared to Canadians. Chinese students experienced problems regarding social support, role fulfillment, and the need for autonomy/mutual choice. The intrapersonal constraints that Brazilian people experience are income, education level, and social class that they belong to (Uvinha et al., 2017). An early study in Greece showed that service and facility-related constraints were predominant as well as lack of knowledge and awareness. According to the authors, if Greek people have more knowledge about physical leisure activities, they are more willing to engage in them (Alexandris & Carroll, 1997). The lack of knowledge and awareness was perceived as typical constraints to participate in different leisure activities in Turkey as well (Kara & Özdeoğlu, 2017; Koçak, 2017; Çetinkaya et al., 2018; Üstün et al., 2017). Interestingly, immigrants also experience intrapersonal constraints even if they live in a developed country. A qualitative study conducted among recreational parks users consisting

of immigrants and people of colour in central Illinois revealed that respondents experience intrapersonal constraints such as lack of money, time, or knowledge, and they have a hard time negotiating these constraints (Stodolska et al., 2019).

The interpersonal constraints that people experience in non-Western countries are mostly family-related (Lee & Tideswell, 2005; Stodolska et al., 2019) and structural constraints are finances, time, and accessibility (Kruger & Douglas, 2015). Structured leisure activities are not available or affordable for all members of the society in developing countries. Physical activities are mostly limited to streets and parks. Structured activities for children, such as children's leagues in the U.S.A, are not common in developing countries. Even if the activities and facilities are available, immigrants and people of colour still do not feel safe to participate in outdoor leisure activities (Stodolska et al., 2019). The studies on non-Western countries have revealed that residents experience constraints more than people living in Western developed countries. Therefore, it is essential to understand the type of constraints that people experience to minimize the restricting influence of these constraints on the leisure activity participation. Media and government campaigns continuously emphasize the importance of an active lifestyle to have good health, but it is unknown if these campaigns have helped Turkish people to overcome the leisure constraints they experience.

Leisure constraints in Turkey

Similar to other non-Western cultures, in Turkey the most common leisure activities are sedentary in nature, such as watching TV (Erkip, 2009; Hacıoğlu et al., 2005). Gürbüz and Henderson (2014) found that 79% of Turkish college students prefer home-based activities in their leisure time. A study in Nevşehir, central Turkey, revealed that the most common leisure activities among people under the age of 25 are watching TV or spending time with family (Hacıoğlu et al., 2005). 'Recreation involving the arts, music, and sport appears to be an under-developed aspect of leisure in present-day Turkey' (Erkip, 2009, p. 280). The empirical research focusing on the reasons for the lack of activity among Turkish people is limited. The analysis of the role of intrapersonal, interpersonal, and structural constraints on leisure activity participation is needed to build more effective leisure activities.

Previous research has provided evidence that Turkish people from different groups based on location, age and gender experience structural, intrapersonal, and interpersonal constraints (Ayhan et al., 2018; Gürbüz & Henderson, 2014; Çetinkaya et al., 2018; Üstün et al., 2017). While college students experience structural constraints, such as limited access to

recreational facilities and income level (Gürbüz & Henderson, 2014), high school students located in the Eastern regions of Turkey experience a higher level of intrapersonal, interpersonal, and structural constraints than their Western counterparts (Ayhan et al., 2018). With regard to structural constraints, such as accessibility, the Eastern region is not the only region that has problems, as there are other regions in Turkey, especially rural areas. For example, accessibility was found to be one of the main structural constraints that inhibit Turkish people from visiting national parks in their leisure time (Çetinkaya et al., 2018).

A few studies revealed Turkish people experience intrapersonal and interpersonal constraints as well as structural ones, such as lack of knowledge and information on the leisure activities that they can participate in their environment (Çetinkaya et al., 2018; Üstün et al., 2017). Meanwhile, the main interpersonal constraint to engage in physical activity is the lack of activity partners (Üstün et al., 2017). Physical activities can be done solo; however, it may be more intimidating to participate in a social activity alone. There is no empirical evidence of the influence of constraints on social activities. As a collectivistic culture, Turkish people prefer social activities in their free time (Erkip, 2009), women especially prefer social activities such as movies, theaters, and concerts rather than physical activities (Hacıoğlu et al., 2005). The intrapersonal and interpersonal influence of constraints on the participation of social leisure activities should not be overlooked.

The empirical research to discover the reasons behind these constraints is limited and non-representative. Study samples are mostly composed of students who have a more active lifestyle than the general population; the representation of the general public is weak. Also, in most studies, the focus is on physical activities only, such as going to the gym, playing in sports teams, visiting national parks, etc. This study aims to investigate leisure constraints inhibiting participation in physical and social activities separately to help understand leisure constraints among Turkish people in a more detailed and in-depth way.

The influence of group on leisure constraints and motivation

To date, research that considers motivation in assessing leisure constraints has focused primarily on individuals (Alexandris et al., 2002; Hubbard & Mannell, 2001; Son et al., 2008; White, 2008). However, considering only the individual limits comprehensive understanding of the concept, as the group a person belongs to plays an important role in his/her motivation. Mueller et al. (2019) tested the influence of social identity on motivations, constraints, and negotiation among ultra-endurance cycling race participants in Kansas. People with high in-group identification have higher motivation, stronger negotiation

strategies, and perceive fewer constraints than people with low in-group identification. In a qualitative study, Samdahl and Jekubovich (1997) showed that significant others or family members are critical for increasing motivation to engage in leisure activities. It is necessary to take into consideration that group influence has a more comprehensive understanding of leisure behaviour of individuals living in a collectivistic society, such as Turkish culture (Ayçiçeği-Dinn & Caldwell-Harris, 2013; Pasa, 2000; Yetim, 2003).

Culture is defined as the collective mental programming of the human mind which distinguishes one group of people from another. This programming influences patterns of thinking which are reflected in the meaning people attach to various aspects of life and which become crystallized in the institutions of a society. (Hofstede Insights, n.d.).

According to Hofstede (1980), collective level of mental programming reflects on our language, physical distance from other people, eating, making love, or ceremonies around it. For example, the relationship with the extended family is very important in collectivistic cultures and people usually prefer to act as a group, therefore group activities are more popular than individual ones. While in Western countries people usually go to coffee shops to study or work alone, in Turkey it is rare to see a person sitting alone in a coffee shop, especially in small cities. Türker and Karadağ (2019) applied Hofstede's value survey among tourism workers and supported that Turkish people have collectivistic values. A study among Turkish families showed that the cohesion ratio and sense of belonging is high among family members (Türkdoğan et al., 2019).

The influence of group on motivation and leisure constraints should not be ignored in a culture where family relationships are close. Collecting the data from each member of the family and testing the data at the family level allows us to understand both individual preferences and the reflection of individual preferences on the family leisure. With this approach different families are compared with each other and individual leisure preferences are discussed at a family level. In this way, the differences of individual preferences among different families are detected.

By applying Hierarchical Linear Modeling (HLM), the study aims to understand the interdependency of individual leisure preferences among family members regarding the relationship between motivation, constraints, and intention. Figure 1 demonstrates the conceptual model. Based on the previous literature research, hypotheses are as follows:

H1: There is a negative relationship between motivation to participate in leisure activities and leisure constraints at the individual and family levels.

H2: There is a positive relationship between motivation to participate in leisure activities and intention to participate in leisure activities at the individual and family levels.

H3: People who experience higher leisure constraints have a lower intention to participate in leisure activities.

H4: People who do not participate in physical leisure activities experience leisure constraints more than people who participate in physical leisure activities.

H5: People who do not participate in social leisure activities experience leisure constraints more than people who participate in social leisure activities.

Research methods

Questionnaire development

The survey instrument consists of five sections. The first section was composed of screening questions such as ‘Do you engage in any physical activity in your leisure time outside of your home?’, ‘During a typical 7-day period (a week), in your leisure time, how often do you engage in any physical activity?’, and ‘How many hours on average do you spend on the physical activity each time?’ Questions were repeated for social activity as well. ‘Outside home environment’ was added after the pilot study because respondents tended to list some sedentary activities, such as watching TV or reading, which do not serve the purpose of the study.

The second section includes questions measuring intention. The scale for this section, consisting of four questions, was adopted from the scales developed by Ajzen and Driver (1992) and Blanchard et al. (2008). The third section lists the questions regarding leisure constraints, measured with the scale adapted from Alexandris and Carroll (1997), Hubbard and Mannell (2001), and White (2008). Family relationships tend to be close in Turkish culture. Therefore, to test the importance of family relations on constraints, the statement ‘I do not have a chance to participate in leisure-time activities due to my family obligations’ was added to the intrapersonal dimension. A three-factor model, intrapersonal, interpersonal, and structural, was used to measure leisure constraints. Thirteen statements were followed by the sentence ‘I do not always participate in leisure activities because ...’.

Questions regarding motivation to participate in leisure activities were listed in the fourth section. The scales developed by Ryan and Glendon (1998) and White (2008) were used to measure motivation. The motivation was measured in three factors – escape/relaxation, achievement/search, and socialize. Five statements for achievement/search, four statements for escape/relaxation, and three statements for socialize, twelve statements in total, were listed after the sentence ‘I participate in leisure activities to . . .’. Intention, motivation, and constraints were measured on a seven-point scale (1=strongly disagree, 7=strongly agree). Questions in the last section were about the respondents’ demographic information.

Pilot study

The questionnaire was translated to Turkish from English by the researcher. A pilot study was conducted among 20 employees of Sakarya University of Applied Sciences to test the clarity of the translation. Employees, including both academic and administrative workers, filled their questionnaire in Turkish. Each respondent was asked if there was any part that was unclear due to translation. The feedback from the employees was noted and, after the questions were rephrased, employees were asked to read the questions again. This cycle was continued until all the questions were understood correctly by the employees. Additionally, the English speaking academic staff were shown the English version, and they gave feedback about the translation. The questionnaire was revised based on the feedback.

After the completion of the pilot study and some alterations, the final version of the questionnaire was distributed in person to families located in three big cities in the Marmara Region, İstanbul, İzmit, and Sakarya, between December 2018 and January 2019. Due to time and budget limitations, convenience sampling was used. Students and employees of the Tourism Faculty and their families completed the questionnaire. Respondents filled out the questionnaires with hand and data was entered to SPSS software by the researcher by hand. The sample consisted of only families living in the same household; therefore, the sizes of the families ranged from two to six persons. In total, 420 questionnaires were collected from 122 families. Due to normality issues and missing data, seven individuals were eliminated from the dataset. Four hundred and thirteen individuals from 122 families were included in the analyses.

Data analyses

The data were analyzed with SPSS 21 and EQS 6.2 with Structural Equation Modelling (SEM) and Multi-Level (ML) regression techniques. EQS software is a better alternative as it solves the issues resulting from the differences in the size of the groups. The ML approach was proven to provide

more accurate results and decrease Type-2 errors in analyzing family decisions (Coşkun et al., 2019). This methodology addresses sibtorp, et al., (2004) contention that parks, recreation, and tourism literature needs more studies using HLM to analyze data as recreation activities are primarily group-based. More recently, Heo et al. (2010) examined the relationship between serious leisure, flow, and subjective wellbeing among older adults. According to the authors, one significant advantage of using HLM is the ability to control individual differences in flow and serious leisure variables. Demographic variables vary at the individual level, and serious leisure and flow vary at the episode level, as 800 repeated measures were nested in 22 individual levels. ICC results showed that 59.58% of the variance in subjective wellbeing was between-person, with the remaining variance being accounted for by within-person. The use of HLM allowed the researchers to delineate more accurately the relationships between variables (Heo et al., 2010). The current study was designed to measure motivation, constraints and intention variables at both individual and family level. The ICC scores are important to determine the decision to measure variables at the group level which is family level in the current study. As it is seen on Table 2, ICC scores are sufficient to measure independent and dependent variables at the group level. Measuring variables at both individual and family level will allow to detect the interdependency among the family members with regards to these variables. In this way researcher will be able to understand both individual differences and the differences between families. The maximum number of level-two observations with groups with a smaller number of units is better in terms of power (Bickel, 2012). According to Maas and Hox (2005), at least 50 two-level observations are needed to assure that standard error estimates for fixed components are unbiased in a two-level model.

Many researchers have argued that Hierarchical Linear Modeling (HLM) is a better alternative compared to General Linear Modelling (GLM) and Ordinary Least Squares (OLS) regression. Garson (2013) states:

OLS regression and GLM assumes that error terms are independent and have equal variances, whereas when data are nested or cross-classified by groups, individual-level observations from the same upper-level group will not be independent but rather will be more similar due to such factors as shared group history and group selection process. While random effects associated with upper-level random factors do not affect lower-level population means, they do affect the covariance structure of the data. Indeed, adjusting for this is a central point of LMM models and is why linear mixed models are used instead of regression and GLM which assume independence (p. 6).

Since Turkish culture is collectivistic and the family relations are tight, assuming independence will result in non-accurate results. Using HLM is a better alternative for this type of data.

Results

For data screening, measures such as Skewness, Kurtosis, and Mahalanobis distance were calculated. Seven cases were deleted due to the high Mahalanobis distance score. The Skewness of all items were between -2 and $+2$, and Fisher kurtosis of all items were between -3 and $+3$, which are acceptable (Tabachnick & Fidell, 2001). For the replacement of missing data, EM imputation was implemented. The analyses were conducted on 122 cases with 413 individuals. The number of individuals for each family ranged from 2 to 6 persons, and the mean of the number of people in a family was 2.4.

Demographics

Results have shown that 52% percent of the sample is male, and 48% is female. The average age of the respondents is 35 and the median age is 32. Fifty five percent of the respondents are married. Twenty nine percent of the respondents has less than a high school education, 41% has a high school degree, and 25% of the sample are college graduates. 51% of the sample are not employed and 46% of respondents have no income. 16% of the respondents earn between 3,000 and 4,999 Turkish Liras (\$521–\$868) per month, and 12% make between 2,000 and 2,999 Turkish Liras (\$347 - \$520) per month. Demographic information is demonstrated in [Table 1](#).

Measurement model

Structural equation modelling (SEM) was used to run the measurement model. The multi-level measurement model was run to test the proposed theoretical model. Three items, one motivation and two constraints items, were eliminated from the analyses due to low loadings.

The correlation between first-order factors was over .8. Therefore, motivation and constraints were tested as second-order factors. The model demonstrated acceptable fit ($\chi^2 = 8008.621$, $df = 702$, $NFI = 0.862$, $CFI = 0.935$ and $RMSEA = 0.061$ at 90% $CI = .055-.066$). To assess the variance occurring at the family level, ICC for each item was calculated. Interclass Correlation Coefficients (ICC) indicates whether the observations from the same group tend to be different from the observations from other groups. A ICC score over 0.10 is sufficient for the decision to use Multi-level analysis, which is the case for the majority of the items in the current study ([Table 2](#)). The highest ICC scores were seen among items measuring constraints. As seen in [Table 3](#), all loadings were over .6 except one, and alpha, and composite reliability scores were all over .6 except one. Average Variance Extracted (AVEs) and factor loadings were calculated for

Table 1. Demographics.

	N	%
<i>Gender</i>		
Male	213	51.8
Female	198	48.2
<i>Relationship Status</i>		
Single	183	44.5
Married	228	55.5
<i>Age</i>		
12–18	37	9.0
18–24	100	24.2
25–34	88	21.3
35–44	57	13.8
45–54	88	21.3
55 and over	35	8.6
<i>Highest Level of Education</i>		
Less than high school	121	29.4
High school	170	41.3
College Graduate	104	25.2
Graduate Degree	17	4.1
<i>Weekly Working Hours</i>		
0	209	51.1
Under 10 hours	32	7.8
11–20 hours	24	5.9
21–40 hours	34	8.3
41–60 hours	86	21.0
Over 60 hours	24	5.9
<i>Individual Income (Monthly)</i>		
None	190	46.1
Under minimum wage	13	3.2
Minimum wage	19	4.6
Minimum wage-1,999TL	21	5.1
2,000–2,999	50	12.1
3,000–4,999	65	15.8
5,000–7,499	27	6.6
7,500–9,999	12	2.9
10,000 and more	15	3.6

Table 2. Interclass correlation coefficients.

Model-Based Interclass Correlation Coefficients								
MOT1	MOT2	MOT3	MOT5	MOT6	MOT7	MOT8	MOT9	MOT10
0.129	0.139	0.224	0.236	0.142	0.051	0.184	0.156	0.126
MOT11	MOT12	MOT13	CONS1	CONS2	CONS3	CONS4	CONS5	CONS7
0.043	0.123	0.073	0.190	0.230	0.303	0.225	0.228	0.186
CONS8	CONS9	CONS10	CONS11	CONS12	PLAN	TRY	INTEND	WILL
0.202	0.262	0.334	0.141	0.287	0.148	0.110	0.096	0.099

the second-order factors. AVEs on level 2 are all over .7, and on level 1 they are over .5. Further, AVEs are higher than the squared factor correlations, an indication of convergent and discriminant validity (Fornell & Larcker, 1981) (Table 4, Table 5).

Structural model

Three multi-level structural models were run for testing of the hypotheses. The first model was run to test the relationship between

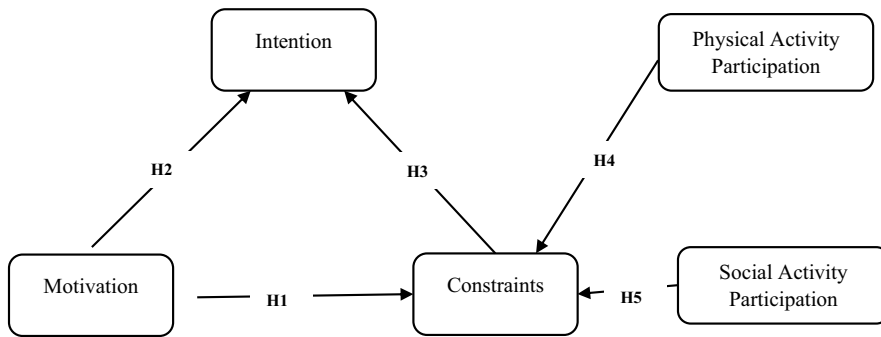


Figure 1. The conceptual framework.

Table 3. Factor loadings, alpha and composite reliability.

Second-order Factor First-order Factor	Loadings		Alpha		Composite Reliability	
	L1	L2	L1	L2	L1	L2
Motivation						
Achievement/search			.874	.893	.874	.898
Gain a sense of accomplishment	.753	.541				
Experience excitement/adventure	.744	.849				
Develop my skills and abilities	.816	.718				
Discover new places and things	.736	.960				
Use my physical abilities	.767	.888				
Escape/relaxation			.847	.949	.776	.886
Get away from usual demands of life	.730	.788				
Experience solitude	.845	.978				
Relax mentally	.722	.906				
Want to be in a calm atmosphere	.751	.959				
Socialize			.859	.960	.670	.770
Have a good time with my family and friends	.777	.992				
Spend time with others	.891	.983				
Build friendship	.790	.853				
Leisure Constraints						
Intrapersonal			.870	.966	.870	.960
Not interested	.654	.866				
Too shy to participate	.745	.927				
Don't feel welcome	.800	.948				
Don't have enough information	.834	.898				
Don't have skills or physical ability	.753	.982				
Interpersonal			.677	.870	.490	.680
Don't have companions to go with	.713	.999				
People I know live far away	.614	.738				
My family don't let me	.600	.754				
Structural			.800	.895	.620	.760
Afraid of getting hurt by other people	.742	.951				
Cannot afford it	.713	.860				
Don't have right equipment or clothes	.843	.969				
Intention						
I plan to engage in leisure activity	.842	.936	.864	.977	.870	.910
I will try to engage in leisure activity	.915	.999				
I intend to engage in leisure activity	.905	.951				
I will probably engage in leisure activity	.877	.940				

Table 4. Aves and squared factor correlations for second-order factors.

	Within Level			Between Level		
	Intention	Motivation	Constraints	Intention	Motivation	Constraints
Intention	.7841			.9161		
Motivation	.380	.6131		.593	.7901	
Constraints	.087	.126	.5271	.241	.370	.8071

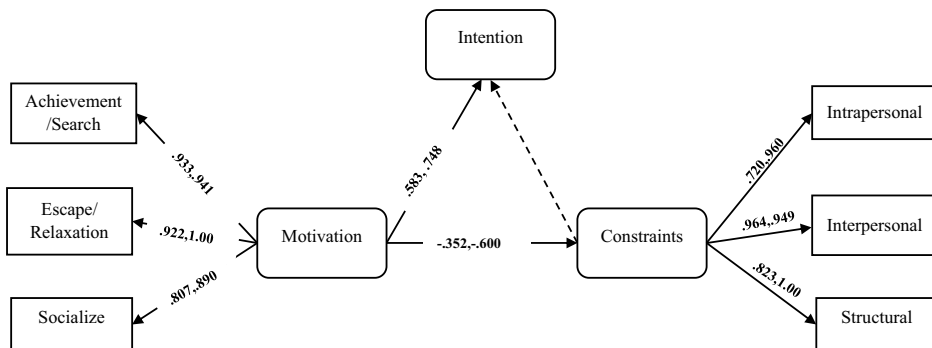
Note. 1:AVE F1: INTENTION, F2: MOTIVATION; F3: CONSTRAINTS.

Table 5. Hypothesis testing.

Path	Hypothesis	χ^2	
		Level 1 (individual)	Level 2 (family)
Motivation → Constraints	H1	-5.863*	-4.195*
Motivation → Intention	H2	11.549*	2.847*
Constraints → Intention	H3	-1.820	-.101
Physical Activity Participation → Constraints	H4	4.207*	1.485
Social Activity Participation → Constraints	H5	1.757	1.036

*Significant path.

motivation, constraint, and intention. The model showed acceptable fit ($\text{Chi}^2 = 8008.621$, $\text{df} = 702$, $\text{NFI} = .862$, $\text{CFI} = .935$ and $\text{RMSEA} = .061$). Results revealed that motivation significantly influences intention and constraints at both within and between levels. However, constraints do not have any significant influence on intention. H1 and H2 were supported, and H3 was rejected. The standardized regression coefficients for significant relationships at within and between levels are demonstrated in Figure 2. To test H4 and H5 a second model was run ($\text{Chi}^2 = 8189.586$, $\text{df} = 812$, $\text{NFI} = .837$, $\text{CFI} = .919$, and $\text{RMSEA} = .064$). According to the results, H4 was supported for the within level only, and H5 was rejected for the both within and between levels. People who do not participate in physical leisure activities scored higher on

**Figure 2.** Second-order model results. Note: Standardized regression coefficients for significant relationships, level 1 and level 2 coefficients are listed consecutively

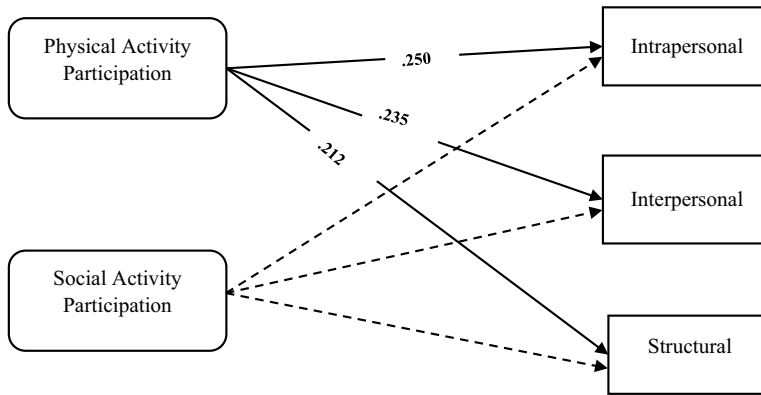


Figure 3. The relationship between participation and constraint. Note: Standardized regression coefficients for significant relationships

constraints. However, no difference between participants and non-participants of social activity was found regarding constraints. Results of the hypotheses testing are displayed on [Table 1](#) and regression coefficients on [Figure 3](#)

Discussion

One purpose of this study was to analyze the influence of leisure constraints and motivation on the intention to participate in leisure activities among Turkish families. The current study revealed a significant influence of motivation on the constraints and intention. Family members who have high motivation experience fewer constraints and have a higher intention to participate in leisure activities. The findings of the current study which showed the impact of motivation on the intention, are in accordance with some studies (Alexandris et al., 2002; Hubbard & Mannell, 2001; Mueller et al., 2019).

Another purpose of this study was to provide a better understanding of leisure activity participation and its antecedents among Turkish families by applying a multi-level approach. The significant relationships between motivation, constraints, and intention were also observed at the family level. Also, the high ICC scores for variables motivation and constraints indicate the interdependency among the responses of the family members. ICC indicates whether the observations from the same group (family) tend to be different than the observations from other groups (families). The influence of group identity has been associated with leisure constraints and motivation in previous research (Mueller et al., 2019). The significant relationships between variables at the family level (level 2) show that being

a member of a family influences leisure activity participation and its antecedents. This is not surprising, as Turkish culture is collectivistic, and it is common that family members are involved in each other's lives more than usual. Constraints have a significant influence on the intention to participate in leisure activities at the individual and family level, where motivation plays a more critical role than constraints in participation decision.

The current study showed the participation in physical activities is lower than participation in social activities. While families do not experience any constraints participating in social activities, an individual in the family may. Additionally, families do not experience constraints to participate in physical activities as a group, but individuals experience constraints at different levels. This result is unexpected considering the collectivistic nature of the Turkish culture. In traditional Turkish families, mothers participate in physical activities less than the other members of the family as they experience constraints more than other members (Koca et al., 2009).

Since recreational facilities for sports are underdeveloped in Turkey (Erkip, 2009), previous research showed that Turkish students experience structural constraints most (Gürbüz & Henderson, 2014). People who do not participate in physical activities regularly experience all three types of constraints. Structured physical activity was not common, especially among low-income residents until recent years. Research shows that students participating in summer sport schools that was organized by the government are mostly coming from families with low income (Ocak et al., 2011). Low-income families cannot afford to send their children to private summer schools and the schools organized by the government accept a limited number of participants. Therefore, even if the number of facilities increase, low-income groups will not be able to participate due to financial issues on one hand. On the other hand, even if some families do not experience structural constraints such as financial problems, they may still be reluctant to engage due to intrapersonal and interpersonal constraints as well as structural constraints. Such constraints may be the lack of exercise and sport participation among children of middle- and low-income families. The habit of exercise needs to be built during childhood, and the structured activity opportunities that government schools offer to children and teenagers in Turkey are limited.

The results of the current study reveal that participation in physical (e.g. going to the gym, jogging) and social activities (e.g. meeting with friends, participation in social and cultural events) is 75% and 87% respectively. The higher percentage of people participating in social activities supports the argument that Turkish people usually prefer home-based sedentary activities or social activities in their free time (Erkip, 2009; Hacıoğlu et al., 2005). They do not experience any type of constraints to engage in social activities. There are many opportunities for social activities and spending time with family and friends, such as meeting at coffee shops and restaurants. It was expected that

Turkish people do not experience any constraints to participate in social activities.

Implications

One aim of this study was to provide insight into family leisure behaviour in Turkish society by applying multi-level modelling. The need for the multi-level approach in leisure and tourism studies was emphasized by other researchers (Coşkun et al., 2019; Heo et al., 2010; Sibthorp et al., 2004). This study has provided empirical evidence to support this argument with high ICC scores, measuring the interdependency among the responses of the family members, and the significant relationships between variables at the family level. Future studies focusing on leisure behavior are recommended to adopt a multi-level approach.

The significant influence of motivation on leisure constraints and intention shows that motivation has an important role in explaining these concepts. The perception of leisure activity varies by culture. Almost half of the respondents do not have income, and the average income of the remaining respondents was around 3000 TL (USD \$525 at the time of the data collection) per month. At this level of income, respondents will inevitably experience some structural constraints. Even though participating in social activities requires a certain level of income, respondents do not feel any structural constraints to participate. It is evident that social leisure activities are a priority over physical activities in Turkish society.

Previous research showed that Turkish people prefer sedentary activities over active ones in their leisure time (Erkip, 2009; Hacıoğlu et al., 2005). Current study also showed that respondents prefer social activities more than physical ones. In the last ten years, community parks have been equipped with underutilized fitness gear, but these target a younger population who prefer staying sedentary. The current study shows that the motivation of family members influences each other's leisure activity participation. Government authorities should organize activities targeting the whole family to increase physical activity participation. Turkish families enjoy participating in social activities with their families. The organizations and establishments offering both social and physical activities that families enjoy together may increase their motivation to engage in some sort of physical activity. For example, recently some restaurants located in the countryside extended their service by adding activities such as zip-lining. Some horse farms offer breakfast on weekends together with a 30-minute horseback ride for children to create interest. These types of establishments may facilitate interest in physical activities.

The effectiveness of social marketing in the promotion of recreational activities was proven in previous research (Borden & Mahamane, 2020;

Scott & Higgins, 2012). Public and private recreational planners can use 4p of marketing to promote health and active lifestyle among Turkish people. The marketing campaigns can be based on the product as healthy lifestyle, place as social media, internet, TV and community centers. Price should be kept at minimum to attract lower income group families. Promotion could occur through youth camps and summer schools organized by the government, community centers, universities by initiating weight loss, activity lifestyle campaigns. Government can induce behaviour change by applying this method. Another method for promoting healthy lifestyle is intervention. The higher number of employees working in t recreation centers attract more youth to the centers (Moody et al., 2004). Public recreational centers in Turkey should hire more qualified young and energetic staff to attract youth to the centers for participating in both physical activities and social gatherings. In this way young people from lower income group families will have a chance to engage in physical and social leisure. Networking is also an important consequence of leisure time physical and social activities. Getting families out of their homes in their leisure time will give them a chance to create bonds with other families as well.

The efforts of facility owners and the government will not be sufficient to integrate physical activity into Turkish people's daily life. The significance of intrapersonal constraints among people who do not engage in physical activities shows that Turkish people still do not perceive physical activity as a part of their daily life; they need a push from outside, namely from family or friends, to engage in physical activity. The government, especially the Ministry of Education and Ministry of Youth and Sports, needs to undertake more effective initiatives among the younger population to increase awareness and knowledge. Childhood is a critical time in a person's life to develop the habit of physical activity (Kjønniksen et al., 2009; Mäkelä et al., 2017) and non-sedentary social leisure activities should be encouraged among the younger population. Building parks with fitness gear will only help to overcome structural constraints; Turkish society needs more to overcome intrapersonal and interpersonal constraints. The Ministry of Culture has made some effort to increase social and cultural activities. However, the significance of intrapersonal constraints among people who do not engage in social activities shows that the efforts of the Ministry are not sufficient.

Limitations and suggestions for future research

The first limitation of this study is that the collection of data was limited to three cities in Turkey: İstanbul, Kocaeli, and Sakarya. Future studies should include different regions, primarily conservative areas such as the Middle and Eastern regions to provide more insight into traditional Turkish society. The second limitation is the elimination of negotiation from the model.

Since motivation has a significant influence on constraints and intention, the influence of negotiation of constraints on leisure participation may be an interesting topic for future studies among Turkish society. The third limitation is that the sample was composed of students and employees of the Tourism Faculty and their families. Future studies could include a more representative sample. Lastly due to the fact that current study utilized second order modeling, the relationships between individual dimensions of motivation; escape, achievement and social, and leisure constraints; intrapersonal, interpersonal and structural could not be detected. Future studies could focus on these nuances.

Conclusion

The purpose of this study was to analyze the influence of leisure constraints and motivation on the intention to participate in leisure activities among Turkish families by applying a multi-level approach. The results showed that while motivation has a significant influence on constraints and intention, constraints have no influence on intention. The significance of the relationships at the family level and high ICC scores supported the argument that a multi-level approach is a better alternative to explain family leisure. Recreation and leisure research is emerging in Turkish literature, with research on family leisure in Turkey at the exploratory level. More research is needed on this topic to provide a more comprehensive understanding and to build better programs for family leisure.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributor

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