



RESEARCH ARTICLE

Investigation of Recreation Area Participation Barriers of Families With Special Needs

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Abstract

Families, as fundamental units of society, represent the primary social context in which individuals spend the majority of their lives. The objectives of parenthood generally include the aim to nurture healthy and contented children. However, the birth of a child with health issues often necessitates a reevaluation of these objectives. Such circumstances directly impact the standards of living and daily routines of many parents. Numerous scientific studies have explored the ramifications of these effects. This study aims to investigate the barriers that impede the participation of families with children with special needs in recreational activities. A total of 555 parents from Mersin Province were recruited using a purposive sampling method. The study utilized the Scale of Participation Barriers to the Use of Recreation Area, developed by Gümüş and Alay, along with an Information Request Form as the primary data collection tools. In addition to descriptive statistics, the study employed the t-test for comparing the averages of two independent groups with a normal distribution, and one-way variance analysis for analyzing three or more groups. The results of the analysis revealed that the most significant barriers to participation in recreational areas were related to the 'sports area barrier' (4.01), 'individual barrier' (3.34), and 'time barrier' (2.89).

Keywords

Recreation, Participation Barriers, Children With Special Needs, Parents, Leisure

INTRODUCTION

Various policies have been put into effect in our country so that those with health problems can contribute to society. As a result of these policies, National Disabled Data System was developed using disability reports of medical boards issued by state institutions and organizations under the Directorate General of Services for Persons with Disabilities and the Elderly of Ministry of Family and Social Policies and the system helps shed lights on the data about the disabled population. According to the statistical bulletin for the disable and the elderly issued in April, 2023; there are 2.511.950 alive and disabled people -1.414.643 male disabled individuals, 1.097.307 female disabled individuals- registered to the National

Disabled Data System, Ministry of Social Affairs, and Directorate (April, 2023).

Children's participation in parks and recreation includes participation in daily activities such as entertainment, leisure, school and home activities. The activities that individuals freely choose to participate in during their leisure time, whether active or passive, contribute to the development of motor, language and social skills while influencing human activity components such as relaxation, enjoyment and fulfillment. While shaping children's interests, skills and preferences, it also contributes to the development of their physical health, social emotional well-being, friendship relationships and sense of community (Alper & Başaran, 2023; Kurt et al., 2022). As it is very difficult for individuals with special needs to

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live their lives alone as an individual, it also brings a lot of duties, responsibilities and burdens to families in bringing these children into society. Families with children with special needs face various obstacles (transportation, health, time, economic, nutrition, education, physical activity, etc.) in the community and family environment. By targeting families with children with special needs in the concept of family, which constitutes the smallest building block of society, this study focuses on determining the types of obstacles faced by these families in their participation in recreation areas. For instance, in the studies carried out, wheelchair users' access to these facilities is limited due to obstacles such as bad weather conditions, unfavorable climate, not cutting the sidewalks or not making the sidewalks properly. After accessing these facilities, the fact that they have limited strength and fitness, the physical environment of the facilities such as toilets, doors, parking areas, flooring, ramps, personal illnesses, public transportation and transportation problems show that there are many barriers to physical activity. Barriers include lack of transportation, inability to pay for fitness membership, lack of information on where and how to exercise, and lack of understanding of the importance of exercise in improving their current condition and health (Rimmer, Riley, Wang, Rauworth, & Jurkowski, 2004). Studies have focused on families having children with special needs and their constraints and barriers in participating in recreation areas in relation to family making the smallest unit of the society.

In many European countries, local authorities organize and plan leisure time activities of children with special needs (Lundbäck & Fälth, 2019; Lale et al., 2023) whereas in our country, such organization and planning do not exist in the real sense. The objective of this study is to explore the barriers and constraints to joining recreation areas that children with special needs face and to present a case study rather than to investigate how leisure time activities should be for these children of working parents.

As mentioned by the scientists, the most crucial step to eliminate a problem is to diagnose it. Therefore, if leisure time barriers of the families having children with special needs are uncovered, recommendations can be made for policy makers and local authorities to eliminate these constraints and barriers to participation. In studies that

investigated the achievement of learning outcomes in relation to leisure time activities among children with special needs, it is suggested that leisure time activities play a positive role in the achievement of learning outcomes (Göransson & Nilholm, 2014; Seyrek et al., 2023; Almqvist, Malmqvist, & Nilholm, 2015). Almqvist et al. (2015) conducted a study that drew attention to collaborative learning as a successful method and demonstrated that recreation areas made a positive contribution to this learning process and emphasized that different studies should be done to explore the importance of recreation areas for children with special needs. For families with special needs who spend most of their lives in small and limited social groups (Cavkaytar, 2018), recreation areas and accessibility to these areas are important so that they can develop themselves in many ways. In the study of Gümüş et al. (2017), factors that affected choosing recreation areas and participation in activities among 412 individuals aged over 16 years who used park and recreation areas in Ankara Province for physical activity purposes were examined. As a result of the study, it was identified that reasons not to join physical activities in park and recreation areas (gender, educational level and smoking status) differed significantly and found that gender, age, educational level, body mass index and smoking status did not create a difference in choosing recreation areas (Gümüş et al., 2017). The study of Sarol (2017) reviewed the factors that prevented/restricted and facilitated physical activity participation among 691 participants who lived in different counties of Ankara Province and as a result of the study, identified that an important factor upon female participation in physical activities was “structural facilitators” and concluded that being single played a bigger role in preventing the participation in physical activities. As income level increased, perceived barriers reduced in these 691 participants. The most important barrier to physical activity participation was found to be “structural barriers” while the most important factor that facilitated participation was “individual facilitators” (Sarol, 2017). As for the study of Akyol and Ilkim (2018), they investigated participation in sportive activities among 35 children with special needs aged between 10 and 15 years in Malatya Province (11 children diagnosed with autism, 6 children with physical disabilities, 10 children with Down syndrome and 8 children with mild mental disabilities) and concluded that

children were willing to join sportive activities but educators had insufficient knowledge and skills and participants had communicational problems with local authorities. They suggested that families of the disabled children faced different difficulties when they transferred the children to physical activity areas, (environmental factors, heavy traffic, social discriminations, economical structure of the family, etc.), despite these constraints they continued to drive their children to these activities and suffered from both environmental, systemic barriers and bureaucratic barriers when they joined regular physical activities (Akyol & Ilkim, 2018). The study of Yağmur et al. (2020) recruited 289 participants (123 male and 166 female) and examined parameters related to participants' physical activities in park and recreation areas in Ankara Province. As a result of the study, variables of gender, educational level, marital status and body mass index were found not to affect choice of recreation areas and physical activity participation but variable of doing regular sports affected choice of physical activity area and variable of age affected frequency of participation in physical activities. Sportive activities were classified under three themes: sportive activities on province and country level and families, sportive activities provided by central and local authorities. Demands from local authorities of the families having a disabled child are reported to be barrier-free-living and barrier-free-sportive activities, information activities, elimination of the problems in common living places, allocation of social and sportive places to the disabled individuals and increasing the number of recreative activities (Yağmur, Eroğlu, Çağla, & Iconomescu, 2020). Pamuk's study (2021) focused on 20 families with disabled children in Malatya Province, exploring their expectations and demands from local authorities regarding the participation of their children in physical activities, with a focus on accessible living and inclusive sports. The findings revealed three main themes: the availability of sports activities, the accessibility of sports activities at the provincial and national levels, and the services offered by central and local authorities to families. As the result of our study; demands from local authorities of the families having a disabled child for barrier-free-living and barrier-free-sportive activities are information activities, elimination of problems in common living places, allocation of social and sportive places to the disabled individuals and increasing the number of

recreative activities organized (Yağmur, Eroğlu, Çağla, & Iconomescu, 2020; Güner, 2021). In Erbaş et al.'s (2021) study, the researchers examined the constraints that prevent disabled individuals from accessing recreational activities in urban areas. They conducted a literature review using keywords such as 'recreation', 'leisure time', 'disabled' and 'physical activity' focusing on relevant studies. The study identified environmental and structural factors as the most significant constraints for disabled individuals. This conclusion was drawn in light of factors such as psychological and emotional factors, economic factors, and legal/procedural factors. To eliminate these constraints, solutions about physical environments were recommended (Erbaş, Gümüş, & Talaghir, 2021). Although there are numerous studies done with different populations in terms of participation in recreation areas (Ayhan, Ekinci, Yalçın, & Yiğit, 2018; Erbaş et al., 2021; Sarol, 2017; Yağmur et al., 2020), there are no studies on the families of the children with special needs.

Can recreation areas, which are strategically important for social improvement and inclusion, address all segments of society? This question serves as the motivation for this study, which was designed to explore this very question. Based on this premise, the research questions were formulated as follows:

1. What barriers exist for families with children with special needs in participating in recreational activities?
2. Are there differences in these barriers based on gender and marital status?

MATERIALS AND METHODS

Participants

This study focused on reviewing barriers to participation in recreation areas among the families having children with special needs. To this end, 555 voluntary parents who were selected using a suitable purposive sampling method from Mersin Province between 2020 and 2021 were included in the study. 414 of the parents were female participants while 141 of them were male participants. Data collection tool was consisted of two parts. In the first part, questions to address participants' various demographic information such as gender, marital status, age groups and health perception were asked. This study followed ethical standards and received approval from the Mersin

university social and human sciences ethics committee with reference number (Ref: 2023/3 Date: 05. march. 23). Participant provided informed consent, with the volunteer form covering research details, risks, benefits, confidentiality, and participant rights. The research strictly adhered to the ethical principles of the Declaration of Helsinki, prioritizing participant's rights and well-being in design, procedures, and confidentiality measures.

In the second part, Scale of Participation Barriers to the Use of Recreation Area (SPBURA) (Gümüş et al., 2017) was used to measure the constraints that prevented parents from participating in park and recreation areas. SPBURA has five subscales –safety barrier, individual barriers, sports area barrier, time barriers and friend barriers- and 17 items. SPBURA is a five-point rating scale (1: strongly disagree, 2: disagree, 3: undecided, 4: absolutely agree, 5: strongly agree). SPBURA was developed using the similar previous studies in the literature.

Statistical Analysis

To analyze the data; in addition to the descriptive statistics- t-test (which is one of the parametric tests) was used to compare averages of two independent groups in the normal distribution while one way variance analysis was used to analyze three or more groups. Exploratory (inferential) statistical findings were calculated over 555 participants in order to test significance of the subscale differences in terms of different variables obtained from the participating parents. cronbach's alpha values for the scale are: The safety barrier 0.91, the time barrier 0.82, the friends barrier 0.86, the sports area barrier 0.87, the individual barriers 0.84 and total scale 0.85. The explained variance ratio of the scale is 71.234.

RESULTS

Table 1 demonstrated the participants’ distributions as to such variables as gender, marital status, age groups and health perception.

Table 1. Participants’ Demographic Information

Variables		n	%
Gender	Female	414	74.2
	Male	141	25.8
Marital Status	Married	460	83.5
	Single	95	16.5
Age groups	22-35	122	22.1
	36-49	155	26.8
	≥50	278	51.1
Health perception	Bad	86	15.5
	Normal	374	68.6
	Good	95	15.9
Total		555	100

In Table 1, it is seen that 74.2% of the participating individuals were female. 83.5% of them were married while 16.5% were divorced or widow individuals. 51.1% of the participants were aged ≥ 50 years and 68.6% of them defined health

status as normal. Data as to the participants’ average scores and standard deviations obtained from subscales of Scale of Participation Barriers to the Use of Recreation Area were presented in Table 2.

Table 2. Participants’ barriers for participation in recreation areas

Subscales	\bar{x}	Sd
Sports area barrier	4.01	1.51
Individual barriers	3.34	1.32
Time barriers	2.89	1.03
Friend barriers	2.56	.83
Safety barrier	2.43	.76

According to statistical findings about the subscales of “Scale of Participation Barriers to the Use of Recreation Area” and about the factors that prevented the families from participating recreation areas; “sports area barrier” subscale (\bar{x} =4.01) was in the first place as a barrier; followed – respectively- by “individual barriers” subscale

(\bar{x} =3.34), “time barriers” (\bar{x} =2.89), friend barrier (\bar{x} =2.56), safety barrier (\bar{x} =2.43) subscales. Correlations between the subscales of Scale of Participation Barriers to the Use of Recreation Area and participants’ gender variable were presented in Table 3.

Table 3. Participants’ t-test results according to gender

Variables		M	Sd	t	p
Sports area barrier	M	3.89	.32	1.122	.026*
	F	3.08	.43		
Individual barriers	M	3.22	.73	1.612	.044*
	F	2.67	.53		
Friend barriers	M	2.33	.68	1.876	.043*
	F	2.05	.69		
Time barriers	M	3.65	.75	2.356	.013*
	F	2.43	.34		
Safety barrier	M	3.59	.65	2.453	.031*
	F	3.05	.34		

*p<0.05

When Table 3 was investigated, because of the independent groups t-test analyses performed to determine whether or not the participating individuals’ barriers for participation in recreation areas differed in terms of gender; it was noted that gender was a variable that caused a significant difference in all subscales (p<.05). Male

participants’ average scores were higher than those of female participants.

Correlations between the subscales of Scale of Participation Barriers to the Use of Recreation Area and participants’ marital status variable were presented in Table 4.

Table 4. Participants’ t-test results according to marital status

Variables		n	\bar{x}	Sd	t	p
Sports area barrier	Married	460	3.08	.33	1.341	.038*
	Single	95	3.85	.43		
Individual barriers	Married	460	3.21	.19	2.174	.027*
	Single	95	3.66	.27		
Friend barriers	Married	460	2.23	.34	1.792	.031*
	Single	95	2.98	.56		
Time barriers	Married	460	2.43	.37	2.145	.027*
	Single	95	3.07	.55		
Safety barrier	Married	460	2.04	.35	2.392	.029*
	Single	95	3.18	.61		

*p<0.05

When Table 4 was studied, as a result of the independent groups t-test analyses performed to determine whether or not the participating individuals’ barriers for participation in recreation areas differed in terms of marital status; it was

identified that marital status was a variable that caused a significant difference in all subscales (p<.05). Single participants showed higher average scores than those of married participants.

DISCUSSION

In the study in which 555 parents who were recruited using a suitable purposive sampling method from Mersin Province joined the study, barriers to participation in recreation areas that families having children with special needs were experiencing were investigated.

In the statistical findings about the subscales of “Scale of Participation Barriers to the Use of Recreation Area” and about the factors that might have prevented the families from participating in recreation areas; “sports area barrier” subscale ($\bar{x}=4.01$) was in the first place as a barrier; followed –respectively- by “individual barriers” subscale ($\bar{x}=3.34$), “time barriers” ($\bar{x}=2.89$), friend barrier ($\bar{x}=2.56$), safety barrier ($\bar{x}=2.43$) subscales and the study of [Shields et al. \(2012\)](#) reported that barriers were insufficient facilities, poor transportation infrastructure, capacity of the programs and personnel, economical cost, lack of information and skills, preferences of the children, fears, parental behaviors and negative attitudes towards the disabled. On the other hand; the facilitators of these barriers were children’s motivation to be active, practical skills, peer participation, family support, accessible facilities, proximity of the location, better opportunities and skilled personnel ([Shields, Synnot, & Barr, 2012](#)). As a result of the study of [Steinhardt et al. \(2021\)](#); it was also found that both facilitators and barriers differed among the individuals and generally depended on their living areas ([Steinhardt, Ullenhag, Jahnsen, & Dolva, 2021](#)). In the study of [Rimmer et al. \(2004\)](#) that was done to determine different facilitators and barriers to the disabled people’s participation in fitness and recreation programs/facilities; ten different themes were established: barriers and facilitators related to the built and natural environment, economical issues, emotional and psychological barriers, equipment barriers, barriers related to the use and interpretation of guidelines-codes-regulations and laws, information-related barriers, professional knowledge, education and training issues, perceptions and attitudes of persons who are not disabled-including professionals, policies and procedures both at the facility and community level and availability of resources. As a result of the study, they identified that participation degree among the disabled people was affected by multi-factorial barriers and facilitators related to these people ([Rimmer, Riley, Wang, Rauworth, &](#)

[Jurkowski, 2004](#)). As observed by these studies, different factors may be regarded as both barriers and facilitators depending on the person and the situation.

As a result of the study, it was found that the main factor that prevented families having children with special needs from participating in park and recreation areas was sports area barrier. When studies that have been conducted on recreation barriers are looked into, the subscale of sports area barrier has been listed in the last position ([Demirci, 2019](#); [Durhan, Özdemir, & Karaküçük, 2021](#)) but has been ranked on the top in the studies done with families having children with special needs; which indicates that park and recreation areas are not suitable for these special children to do sports. If this information is taken into consideration when new recreation areas are built or the old ones are renewed, new opportunities will have been offered to the families having children with special needs so that they can use them more. There are many studies that have emphasized the importance of physical activity and exercises in special children and their families ([Finnvold, 2018](#); [Haney, 2014](#); [Jinnah & Stoneman, 2008](#)). It is in local authorities’ charge to provide necessary infrastructure so that special children can use rehabilitative and therapeutic strength of exercises and physical activities.

In sum, park and recreation areas are very important for children with special needs and their families. No matter what age they are at, children with special needs and their families should benefit from the integrative and valuable role of recreation areas as much as other people. To use recreation areas effectively and productively is crucial to the health and psychological development of the children with special needs. Families that achieve social integration in recreation areas will be able to make healthier relations with both family members and non- family members by getting rid of loneliness.

Recommendations

Different barriers were identified in the study of participation barriers to recreation areas experienced by the families having children with special needs. Meanwhile, many studies have been done to explore what these barriers are and how they can be eliminated. Particularly, considering the fact that each institution separately makes great efforts and works a lot to cope with the same

barriers, it is more important to establish a special institution that is responsible -only- to inspect leisure time activities for children with special needs. Barriers that children with special needs experience are not new but what is necessary is that helpful and useful interventions to improve some of these barriers or to eliminate these barriers are needed. Guiding should be given to identify what strategies are necessary in order to maximize opportunities by identifying these barriers properly. A special care should be given when policies, programs or interventions are implemented for the children with special needs and their families in the developing countries. The importance of building a special institution that is responsible for inspecting leisure time activities for children with special needs is very big. There is a need to investigate and to implement effective methods so that families can be better informed of the benefits of physical activities. Through mobile applications and smart technologies, parks and recreation areas that are designed according to the degree of the disability of the children with special needs should be more accessible for the disabled and should continuously be renewed according to the quality standards. Qualified personnel who will provide the children with special needs with psychological support and encourage them to use recreation areas during social adaptation process should be employed for recreation areas. On certain days of the week, group exercise programs and effective cultural and artistic activities should be held for the children with special needs together with qualified personnel. Public transport vehicles that go to recreation areas should be designed in a way for the children with special needs to use them.

Conflict Of Interest

No potential conflict of interest relevant to this article was reported.

Ethics Statement

The study was approved and supervised by the departmental research committee, Palestine Technical University - kadoorie (Ref: 2023/3 Date: 05. march. 23). Also the current study involving human participants was approved and obtained ethical permission from them.

Author Contributions

Study Design: HG,MK; Data Collection: HG,MK and EYB; Statistical Analysis: HG and MK; Data Interpretation: HG,MK and EYB; Manuscript Preparation, HG,MK and EYB; Literature Search: HG,MK and EYB. All authors

have read and agreed to the published version of the manuscript.

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