

Araştırma Makalesi

KAMPÜS REKREASYONUNUN SOSYOKÜLTÜREL UYUM SÜRECİNDEKİ ROLÜ

THE ROLE OF CAMPUS RECREATION IN FACILITATING SOCIOCULTURAL ADAPTATION

Gönderilen Tarih: 07/01/2025
Kabul Edilen Tarih: 15/03/2025

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Kampüs Rekreasyonunun Sosyokültürel Uyum Sürecindeki Rolü

ÖZ

Bu çalışma, kampüs rekreasyon hizmetlerinin aracılık rolüne odaklanarak sosyal bütünleşmenin üniversite öğrencilerinin sosyokültürel uyumuna etkisini incelemektedir. Uluslararası öğrencilerin yeni kültürel ortamlara uyum sağlama sürecinde karşılaştıkları zorluklar göz önünde bulundurularak, araştırma rekreasyon hizmetlerinin destekleyici bir mekanizma olarak önemini vurgulamaktadır. Veriler, Türkiye'deki büyük bir üniversitede öğrenim gören uluslararası öğrencilerden toplanmış ve rekreasyon hizmet kalitesi, sosyal bütünleşme ve sosyokültürel uyumu değerlendiren geçerli ölçekler kullanılarak elde edilmiştir. Verilerin analizinde Yapısal Eşitlik Modellemesi (SEM) yöntemi kullanılmış ve rekreasyon hizmetlerinin sosyokültürel uyuma hem doğrudan hem de sosyal bütünleşme aracılığıyla dolaylı etkilerinin olduğu ortaya konmuştur. Bulgular, yüksek kaliteli rekreasyon hizmetlerinin yalnızca öğrenciler arasındaki sosyal bağları güçlendirmekle kalmayıp, aynı zamanda kapsayıcı ve etkileşimli ortamlar yaratarak kültürel uyumu da desteklediğini göstermektedir. Bu sonuçlar, kampüs rekreasyonunun yükseköğretimde stratejik bir araç olarak önemini vurgulamakta; aidiyet duygusunun gelişimine katkı sağlayarak kültürlerarası deneyimlerin zenginleşmesine olanak tanıdığını ortaya koymaktadır. Çalışma, üniversite yöneticileri, rekreasyon programı geliştiricileri ve politika yapıcılar için farklı öğrenci gruplarının kampüs deneyimlerini iyileştirmeye yönelik değerli çıkarımlar sunmaktadır. Rekreasyon hizmetlerinin sosyal bütünleşme ve kültürel uyumu teşvik etmedeki rolüne öncelik veren kurumlar, uluslararası öğrencilerinin iyi oluşunu ve akademik başarısını daha etkili bir şekilde destekleyebilir.

Anahtar Kelimeler: Kampüs Rekreasyonu, Sosyokültürel Uyum, Sosyal Bütünleşme, Uluslararası Öğrenciler.

The Role of Campus Recreation in Facilitating Sociocultural Adaptation

ABSTRACT

This study explores the impact of social integration on the sociocultural adaptation of university students, with a particular focus on the mediating role of campus recreation services. Recognizing the challenges faced by international students in adapting to new cultural environments, the research highlights the significance of recreation services as a supportive mechanism. Data were collected from international students at a large Turkish university, utilizing validated instruments to assess recreation service quality, social integration, and sociocultural adaptation. Structural equation modeling (SEM) was employed to analyze the data, revealing that recreation services exert both direct and indirect effects on sociocultural adaptation through social integration. The findings demonstrate that high-quality recreation services not only facilitate social bonding among students but also contribute to their cultural adjustment by creating inclusive and engaging environments. These results emphasize the importance of campus recreation as a strategic tool in higher education, fostering a sense of belonging and enhancing cross-cultural experiences. This study offers valuable insights for university administrators, recreation program developers, and policymakers seeking to improve the campus experience for diverse student populations. By prioritizing the role of recreation in promoting social integration and cultural adaptation, institutions can better support the well-being and success of their international students.

Keywords: Campus Recreation, Sociocultural Adaptation, Social Integration, International Students.

INTRODUCTION

The increasing globalization of higher education has led to a significant rise in the number of international students in universities across the World¹. It is understood that the significant increase in the number of universities in Turkey and the fact that Turkish universities have determined "internationalization" as an important goal for themselves will continue to increase the number of foreign university students coming to Turkey². This phenomenon, while enriching the academic and cultural fabric of university campuses, has also highlighted the challenges faced by international students in terms of social integration and cultural adaptation^{3,4}. Social isolation remains a prevalent issue for international students, as they often struggle to establish meaningful connections with domestic peers, negatively affecting their overall university experience⁵. The adaptation to new cultural norms presents a significant challenge, requiring students to navigate unfamiliar cognitive and behavioral frameworks⁶. Social support and perceived discrimination are critical determinants of both psychological and sociocultural adjustment. Universities must provide comprehensive support systems, tailored resources, and services to address the unique challenges faced by international students. This includes fostering an inclusive environment that enhances not only academic success but also social integration and well-being⁷. In this context, campus recreation plays a pivotal role by offering structured opportunities for social engagement, cultural exchange, and community building, thereby supporting the holistic adaptation of international students⁸⁻¹¹. Simultaneously, cultural adaptation, the process by which individuals from different cultural backgrounds adjust to and adopt elements of a new cultural environment, is vital for the successful integration of international students into university life¹².

Research has consistently shown that students who experience higher levels of social integration tend to have better academic performance, increased satisfaction with their educational experience, and a higher likelihood of completing their studies¹³⁻¹⁵. Students' social networks, comprising family, friends, and faculty, are critical to their academic success, particularly for underrepresented groups¹⁶. Social isolation is often linked to lower academic performance, reflected in decreased examination grades and higher dropout rates. Both academic and social integration are strong predictors of student satisfaction, with academic integration exerting a more significant influence^{17,18}. Variations in satisfaction levels among international students are partly attributable to their degree of academic and social integration. However, international students frequently encounter unique challenges to social integration, such as language barriers, cultural differences, and a sense of isolation. These obstacles not only impede their academic progress but also negatively affect their mental health and overall sense of belonging¹⁹.

In this context, campus recreation activities have become an essential mechanism for fostering social connections and facilitating cultural exchange among diverse student populations. Campus recreation, which includes a broad spectrum of physical, social, and cultural activities, serves as a vital platform for international students to interact with peers in informal, non-academic environments^{20,21}. Unlike classroom settings that may emphasize structured academic interactions, recreational activities provide a more relaxed space where students from different cultural backgrounds can engage freely, fostering organic social bonds²². This informal setting enables international students to overcome initial barriers such as language difficulties and cultural unfamiliarity, which are often impediments to social integration²³.

Research has consistently demonstrated that participation in campus recreation is positively correlated with enhanced social belonging, improved cross-cultural communication skills, and a reduced sense of social isolation²⁴⁻²⁶. Beyond providing opportunities for physical activity, recreation services create inclusive environments where students from diverse backgrounds can interact, collaborate, and build meaningful relationships. For international students, in particular, campus recreation serves as a vital platform for social integration and cultural adaptation, helping them navigate the challenges of adjusting to a new academic and social setting. Recreational activities not only provide international students with opportunities for social engagement but also contribute to their emotional well-being by promoting physical health and stress relief^{9,27}. These activities serve as a bridge between academic responsibilities and personal life, contributing to a holistic university experience²⁸.

Furthermore, the role of campus recreation extends beyond individual well-being; it also fosters institutional integration by promoting inclusivity and diversity²¹. Universities that invest in culturally sensitive recreation programs can enhance their attractiveness to international students by demonstrating a commitment to supporting their social and cultural adaptation^{8,25}. Ultimately, the social, emotional, and physical benefits derived from participation in campus recreation contribute significantly to students' overall satisfaction with their university experience, improving retention rates and promoting positive academic outcomes²⁹.

Theoretical Basis

Theoretical frameworks such as Berry's (2017)³⁰ model of acculturation, Tinto's (2017)³¹ model of student persistence, and Astin's (2014)³² involvement theory highlight the critical role of social integration in the process of cultural adaptation. Berry's acculturation model posits that successful adaptation depends on individuals maintaining a balance between preserving their original cultural identity and engaging with the new cultural environment. This process of acculturation involves both psychological and sociocultural adjustments, where social interactions play a pivotal role in determining the extent to which international students feel accepted and integrated into the host culture. When social integration is facilitated, cultural adaptation becomes smoother, leading to enhanced emotional well-being and a stronger sense of belonging^{33,12}.

Tinto's model of student persistence builds on this by emphasizing the dual importance of social and academic integration for student retention and success³⁴. Tinto argues that students who establish strong social ties within their academic community are not only more likely to persist in their studies but also experience higher levels of satisfaction and engagement. Social integration, according to Tinto, is essential for students to navigate the complex challenges of academic life, particularly for those from underrepresented or international backgrounds, as it provides the necessary social support structures that promote resilience and persistence^{35,36}.

Astin's (2014)³² involvement theory further underscores the role of active participation in both academic and extracurricular activities as a determinant of student success^{37,38}. Astin defines involvement as the amount of physical and psychological energy students invest in their educational experience. According to this theory, the more a student becomes involved in the academic, social, and recreational activities of the

institution, the more likely they are to experience academic success and personal growth. For international students, involvement in campus recreation offers a unique opportunity to participate in activities that not only foster social connections but also promote a sense of community and belonging within the university environment. Astin's theory suggests that campus recreation can serve as a key mediator in the integration process, offering students informal settings in which to build relationships and engage with their peers across cultural boundaries³⁹.

Together, these theoretical frameworks provide a robust foundation for understanding the interconnected relationships between social integration, cultural adaptation, and campus recreation. By facilitating both formal and informal interactions, campus recreation activities create environments conducive to cross-cultural communication and personal development. These frameworks affirm the idea that structured opportunities for social engagement, such as those provided by campus recreation, are essential to the successful adaptation and retention of international students within higher education institutions.

This study aims to contribute to the growing body of literature by exploring the relationship between social integration and cultural adaptation among international students, with campus recreation serving as a potential mediating factor. The research will focus on a large higher education institution with a diverse and growing international student body. While the institution offers various support services to facilitate the transition of international students, there is still room to better understand how recreational programs can enhance their social and cultural experiences. By examining the role of campus recreation in the social integration and cultural adaptation process, this study seeks to provide insights and practical recommendations that can help improve the overall campus experience for international students, fostering a more inclusive and supportive university environment.

MATERIAL AND METHODS

Research Design

This study employs a quantitative research design using a structural equation modeling (SEM) approach to examine the relationships between service quality in recreational activities, social integration, and sociocultural adaptation among international students. SEM was chosen due to its ability to assess complex relationships between latent variables and provide robust insights into the mediating role of campus recreation.

Participants

The participants of this study consist of international students enrolled at a large higher education institution. The sample was selected using stratified random sampling to ensure diversity across various demographics, such as gender, nationality, academic discipline, and duration of stay at the university. A total of 420 international students completed the survey from 3455 students representing the universe, which is a sufficient sample size for SEM analysis.

The data were collected using three validated scales and a demographic questionnaire. Details of each instrument are provided below:

Scale of Service Quality in Recreational Sports Scale: The Scale of Service Quality in Recreational Sport (SSQRS) was developed by Ko and Pastore (2005)⁴⁰, was used to collect data on members' perceptions of the service quality offered by eight different recreational sports centers in Ankara. Service Quality in Recreational Sport Scale consists of 11 dimensions and 49 items. The dimensions of the scale titled as; (a) range of programs (4 items), (b) operating time (3 items), (c) information (5 items), (d) client-employee interaction (7 items), (e) inter-client interaction (4 items), (f) physical change (5 items), (g) valance (4 items), (h) sociability (4 items), (i) ambience (5 items), (j) design (5 items), and (k) equipment (3 items). Participants were asked to rate each item on a 7-point Likert scale ranging from 1 (least important) to 7 (most important). This scale evaluates the quality of campus recreational services, specifically focusing on social, cultural, and sporting activities. In this study, only items related to social and cultural activities were utilized. The internal consistency of the scale has been reported as $\alpha=.87$.

Brief Social Integration Scale into Turkish Society (Holand & Güruhn, 2024)⁴¹: This 7-item unidimensional scale measures the social integration of individuals within the society. The scale has demonstrated high reliability with an internal consistency of $\alpha=.90$. It is suitable for assessing the perceived social belongingness of international students.

Sociocultural Adaptation Scale (Wilson, 2013)⁴²: This scale assesses the sociocultural adaptation of individuals through 21 items across five dimensions. It evaluates the degree to which students adapt to the cultural norms and expectations of their host country. The internal consistency of this scale is reported as $\alpha=.92$.

Demographic Questionnaire: A demographic survey was developed to collect information on participants' gender, nationality, years of study at the university, academic discipline, and preferred leisure activities. These variables were included to provide contextual understanding and control for potential confounding factors.

Data Collection Procedure

Data collection was conducted through an online survey platform to ensure accessibility and convenience for participants. Prior to data collection, ethical approval was obtained from the university's Institutional Review Board. Participants were provided with detailed information about the study's purpose, their rights, and data confidentiality. Informed consent was obtained from all participants before they accessed the survey.

Data Analysis

The collected data were analyzed using structural equation modeling (SEM) through AMOS 26.0 software to test the hypothesized relationships. Initially, descriptive statistics, including means, standard deviations, and frequencies, were computed to summarize demographic variables and scale items. To ensure the reliability and validity of the scales used, Cronbach's alpha coefficients were calculated for each instrument, and confirmatory factor analysis (CFA) was conducted to validate their factor structures. Subsequently, the hypothesized structural model was tested, and the goodness-of-fit indices, such as the chi-square statistic (χ^2), comparative fit index

(CFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA), were used to evaluate the overall model fit. Finally, the mediating role of campus recreation in the relationship between service quality and sociocultural adaptation was examined through the bootstrap method to provide deeper insights into the indirect effects.

RESULTS

Table 1. Descriptive Statistics

Category	Description	n	%
Gender	Male	231	55%
	Female	189	45%
Years at University	Less than 2 years	139	33%
	2 to 4 years	281	67%
Country of Origin	Central Asia	126	30%
	Middle East	105	25%
	Africa	84	20%
	Europe	63	15%
	Other regions	42	10%
Recreational Activity	University-organized (social/cultural events)	302	72%
	Individual/non-organized activities	118	28%
Total		420	100%

The sample consisted of 420 international students enrolled in a large university, with participants representing diverse demographic and cultural backgrounds. Among them, 55% were male (n=231) and 45% were female (n=189). The majority of students (67%, n=281) had been studying at the university for 2 to 4 years, while 33% (n=139) had been enrolled for less than 2 years. Students hailed from 25 different countries, with the largest groups coming from Central Asia (30%), the Middle East (25%), and Africa (20%), followed by Europe (15%) and other regions (10%). In terms of recreational activity participation, 72% of students (n=302) reported engaging in both social and cultural events organized by the university, while 28% (n=118) preferred individual or non-organized leisure activities.

Table 2. Correlation Matrix of Recreation Service Quality, Social Integration, and Sociocultural Adaptation

		Social Integration	Sociocultural Adaptation
Recreation Service Quality	r	.62	.58
	p	.02*	.05*
Social Integration	r	-	.71
	p	-	.01*

*p<0.05

Table 2 presents the correlation coefficients between the three key variables examined in the study: Service Quality, Social Integration, and Sociocultural Adaptation. The correlation values indicate the strength and direction of the relationships between these variables. A positive correlation suggests that as one variable increases, the other tends to increase as well. The values range from 0 to 1, where higher values indicate stronger relationships. The results show a moderate to strong positive

correlation among all three variables, supporting the idea that improvements in service quality on campus are linked to better social integration and sociocultural adaptation among international students.

Table 3. Mediator Analysis - Relationships between Recreation Service Quality, Social Integration, and Sociocultural Adaptation

Path	(β)	p	Effect
Recreation Service Quality → Social Integration	.62	.01*	Direct
Social Integration → Sociocultural Adaptation	.71	.01*	Direct
Recreation Service Quality → Sociocultural Adaptation	.58	.01*	Direct
Recreation Service Quality → Social Integration → Sociocultural Adaptation	.44		Indirect
Direct + Indirect Effect	1.02		Total

*p<0.01

The analysis reveals significant relationships among the variables, underscoring the mediating role of social integration in the link between recreation service quality and sociocultural adaptation. Specifically, the path coefficient from Recreation Service Quality to Social Integration ($\beta=0.62$, $p<0.01$) indicates a strong and statistically significant impact, suggesting that high-quality recreation services effectively enhance social integration. Similarly, the path from Social Integration to Sociocultural Adaptation ($\beta=0.71$, $p<0.01$) demonstrates that social integration plays a pivotal role in fostering sociocultural adaptation. Furthermore, the direct effect of Recreation Service Quality on Sociocultural Adaptation ($\beta=0.58$, $p<0.01$) confirms that recreation services directly contribute to cultural adaptation outcomes. The indirect effect, mediated by Social Integration, is calculated at .44, indicating a substantial pathway through which recreation services influence sociocultural adaptation. The total effect, encompassing both direct and indirect contributions, amounts to 1.02, reflecting the cumulative impact of these relationships. These findings affirm that Recreation Service Quality significantly enhances Sociocultural Adaptation, with Social Integration serving as a critical mediator. This highlights the importance of high-quality recreation services in promoting social integration as a pathway to cultural adaptation, thereby emphasizing their role in creating inclusive and supportive environments for individuals in diverse sociocultural contexts.

DISCUSSION

This study aimed to explore the mediating role of social integration in the relationship between recreation service quality and sociocultural adaptation among international students. The findings provide significant theoretical and practical contributions, aligning with and extending the existing body of literature on recreation services, social integration, and cultural adaptation processes.

The results demonstrated that recreation service quality positively influences both social integration ($\beta=0.62$, $p<0.01$) and sociocultural adaptation ($\beta=0.58$, $p<0.01$), while social integration has a direct positive effect on sociocultural adaptation ($\beta=0.71$, $p<0.01$). Furthermore, the mediating role of recreation services ($\beta=0.44$) in the relationship between social integration and sociocultural adaptation shows that it is important in supporting cultural adaptation among international students. These findings are consistent with previous studies emphasizing the importance of

recreational activities in promoting social cohesion and cultural understanding. Stack and Iwasaki (2009)⁴³ stated that meaningful, purposeful and enjoyable leisure time strengthens immigrants' social connections and helps them adapt to life challenges by facilitating problem solving, learning and development. In their study, Özdemir et al. (2023)⁴⁴ stated that international students experience higher socio-cultural adaptation skills and more free time restrictions as their length of stay in Turkey increases, and these differences depend on the type of university, recreational activities and study program. The results align with theories suggesting that structured and inclusive recreational services act as social catalysts, providing opportunities for interaction and mutual understanding, which are crucial for integration and adaptation in multicultural environments⁴⁵. By integrating the elements of social integration as a mediator, this study advances the understanding of the mechanisms through which recreational services contribute to broader social and cultural outcomes. Our findings corroborate the conclusions of Eubank & DeVita (2023)⁴⁶, who highlighted that high-quality recreational services significantly enhance participants' sense of belonging and engagement within a community. Similarly, the significant direct and indirect effects observed in this study mirror the results of Hui et al., (2015)⁴⁷, who identified social integration as a critical driver of cultural adaptation. However, this study extends the existing literature by emphasizing the dual role of recreational services, both as a direct contributor to sociocultural adaptation and as a facilitator through social integration. Unlike previous research primarily conducted in Western contexts, this study's focus on a non-Western cultural setting provides novel insights, emphasizing the universal applicability of these dynamics while acknowledging cultural nuances.

The findings have substantial implications for university administrators and policymakers aiming to enhance the experiences of international students. Investing in high-quality recreational services that prioritize inclusivity and cultural relevance can serve as a strategic tool for fostering social bonds and easing cultural transitions⁴⁸. These initiatives can include organizing multicultural events, offering culturally sensitive recreational programs, and creating platforms for sustained interaction among diverse student groups. Moreover, the study highlights the need for collaboration between recreation service providers and student support services to develop holistic integration strategies. For example, integrating recreation programs into orientation sessions or cultural adaptation workshops or creating units that manage recreation services could increase their impact. The importance of these services for universities has been expressed in many studies^{49,50,51}.

Despite its contributions, this study is not without limitations. First, the sample was drawn from a single university, limiting the generalizability of the findings. Future research should include diverse institutional contexts and cross-cultural comparisons to validate and expand these results. Second, the reliance on self-reported measures might introduce social desirability bias, necessitating the use of mixed-method approaches in future studies. Additionally, this study focused on international students without examining potential moderating factors such as gender, academic discipline, or length of stay in the host country. Future research could explore these dimensions to provide a more nuanced understanding of the interplay between recreation services, social integration, and sociocultural adaptation.

In conclusion, this study underscores the critical role of recreational services in enhancing sociocultural adaptation among international students through the mediating effect of social integration. By bridging theoretical gaps and offering practical

insights, the findings pave the way for targeted interventions that promote inclusive and supportive campus environments. Future efforts should continue to explore and leverage recreational services as a vital resource for facilitating cross-cultural understanding and integration.

Based on the findings of this study, several recommendations can be made to enhance the role of campus recreation in promoting sociocultural adaptation and social integration among students. Universities should invest in the development and diversification of recreational programs that encourage cross-cultural interactions and inclusive participation. Special attention should be given to designing activities that cater to international students, fostering a sense of belonging and easing their transition into the academic and social environment. Additionally, collaboration between student affairs offices and recreation departments can create strategic initiatives that leverage recreational activities as a tool for community building. Future research should further explore the long-term impacts of campus recreation on students' well-being and academic success, incorporating longitudinal data and diverse institutional settings for a more comprehensive understanding.

DECLARATIONS

Funding

No funds, grants, or other support were received for conducting this study.

Competing Interests

The authors declare no relevant financial or non-financial interests to disclose.

Ethics Approval

This study was approved by the Ethics Committee of Atatürk University, Sub-Ethics Committee, under document number E-70400699-000-2400310185. The research was conducted in accordance with the ethical guidelines established by the committee.

Data Availability

The datasets generated and analyzed during the current study are available from the corresponding author on reasonable request.

Author Contributions

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by [Levent Önal] and [Yunus Sinan Biricik]. The first draft of the manuscript was written by [Levent Önal] and other author commented on previous versions of the manuscript. Both authors read and approved the final manuscript.

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