

Predictors of Life Quality in University Campuses: The Role of Campus Attachment and University Identification

Erkin Sarı¹, Mehmet Fatih Bükün²

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Keywords

Campus attachment, place attachment, university identification, quality of life, university students

Abstract

Many studies have shown that the positive emotional bond between people and places influences the well-being and life quality of individuals. Although this has been demonstrated by studies conducted in places of different scales, including neighborhoods and cities, evidence is needed to reveal how the university campus influences the quality of life of its students. So, the main aim of the current study is to figure out the role of university identification in the relationship between university campus attachment and life quality. A total of 296 university students (226 female, 68 male, 1 non-binary, 1 not stated) completed Group Identification Scale, University Place Attachment Scale and WHOQOL-BREF-TR. A path analysis by using jamovi was carried out to test the effects of exogenous demographic variables on the endogenous variables. Findings demonstrated that sense of security in the campus and the satisfaction with the physical and social facilities of the campus positively predict campus attachment. In addition, our results suggested that university campus attachment has a positive indirect effect on the quality of life through the identification with the university. Our results implied that university authorities should take into consideration the effect of campus atmosphere on life quality of students.

Üniversite Kampüslerinde Yaşam Kalitesinin Belirleyicileri: Kampüse Bağlılık ve Üniversiteyle Özdeşimin Rolü

Öz

Birçok çalışma bireyler ve mekânlar arasında kurulan pozitif duygusal bağın insanların iyi oluşunu ve yaşam kalitesini etkilediğini göstermektedir. Bu durum her ne kadar mahalle ve şehir boyutlarında yapılan çalışmalarda ortaya konmuş olsa da üniversite kampüslerinin öğrencilerin yaşam kalitesini nasıl etkilediğine ilişkin daha çok kanıtı ihtiyaç vardır. Bu sebepten, bu çalışmanın temel amacı üniversite kampüs bağlılığı ile yaşam kalitesi arasındaki ilişkide üniversiteyle özdeşimin rolünü incelemektir. Toplam 296 üniversite öğrencisi (226 kadın, 68 erkek, 1 ikili cinsiyet sınıflandırması dışında olan, 1 cinsiyetini belirtmemiş) Grup Aidiyeti Ölçeği, Üniversite Yere Bağlılık Ölçeği ve Dünya Sağlık Örgütü Yaşam Kalitesi Ölçeği – Kısa Form'u doldurmuştur. Dışsal demografik değişkenlerin içsel değişkenler üzerindeki etkilerini test etmek için jamovi kullanılarak bir yol analizi gerçekleştirilmiştir. Bulgular kampüste güvenli hissetmenin ve kampüsün fiziksel ve sosyal olanaklarından memnuniyetin kampüse bağlılığı olumlu yönde etkilediğini göstermektedir. Ek olarak bulgularımız üniversite kampüsüne bağlılığın üniversite ile özdeşim yoluyla yaşam kalitesi üzerinde olumlu dolaylı bir etkiye sahip olduğunu göstermiştir. Bu çalışmanın sonuçları kampüs atmosferinin öğrencilerin yaşam kalitesi üzerindeki etkisinin üniversite yetkililerince dikkate alınması gerektiğine işaret etmektedir.

Anahtar kelimeler

Kampüs bağlılığı, yere bağlılık, üniversite ile özdeşim, yaşam kalitesi, üniversite öğrencileri

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¹ PhD Candidate, Middle East Technical University, Department of Psychology; Research Assistant, Selçuk University, Department of Psychology, erkin.sari(at)yahoo.com.tr, ORCID: 0000-0002-2162-5558

² Asst. Prof., Bingöl University, Department of Psychology, mfbukun@bingol.edu.tr, ORCID: 0000-0001-6487-4776

A considerable number of high school students complete their secondary education and attend higher education institutions every year. In addition, a significant number of individuals graduate from universities and pursue new career opportunities. Graduating from a university offers numerous personal and societal benefits, including higher individual earnings (Britton et al., 2020), greater employment chances (Card, 1999; Zimmer, 2016), and adopting a healthier lifestyle (e.g., reducing smoking and drinking levels and exercising more) (Cutler & Lleras-Muney, 2006; Ross & Chia-Ling Wu, 1995). Besides, university students participate in more volunteer activities (Trostel, 2015). However, university education has its challenges, especially for first-year undergraduates, in addition to these advantages. Xu and his colleagues (2015) asserted that many undergraduates experience educational, cultural, and personal difficulties. Since understanding students' experiences is necessary for the life quality in campus environments and academic success of students, authorities in colleges and universities should deal with the problems that students struggle with (Pitkethly & Prosser, 2001). In this study, the main aim is to understand possible antecedents and consequences of university campus attachment.

Place Attachment and Identification with Place

Throughout our lives, we seek to build meaningful relationships with other individuals (e.g., our relatives and friends), material things (e.g., our belongings), and specific places (e.g., our homes and neighborhoods) (Scannell, 2013). Ainsworth et al. (2015) indicated that those ties are quite essential to protect us against potential external harms. In addition, they help us connect with the past and guide our future activities. Although it has been studied less than interpersonal attachment, the mutual relationship between humans and their environments has important functions for both people and the environment. Earlier literature indicated that being attached to a specific place has positive outcomes for individuals, including supporting well-being (Hartig et al., 2001; Korpela et al., 2002; Scannell & Gifford, 2017), the continuation of the self and social identity (Lalli, 1992), and providing a feeling of safety (Giuliani et al., 2002).

Building ties with a specific place is essential for people regardless of their cultures and lifestyles. However, the intensity of place attachment depends on numerous factors, including length of residence, social ties in place of residence, homeownership and building density. Lewicka (2010) classified these factors as socio-demographic predictors (e.g., length of residence, homeownership), social predictors (e.g., positive social ties with others in the place of residence), and physical predictors (e.g., the existence of green spaces).

Among socio-demographic or personal predictors, time spent in the place of residence is one of the most cited predictors. Since building connections with a place does not happen very quickly, people need time to establish positive ties with others who live in the neighborhood and create memories there (Bonaiuto et al., 1999; Lewicka, 2011; Scannell & Gifford, 2013). Having one's own house is also influential for attachment with a place. Earlier literature suggests that homeowners are more attached to their residential areas (Mesch & Manor, 1998). Personal characteristics are also instrumental in determining one's place attachment. Tartaglia (2006) demonstrated that individuals who refrain from establishing intimate relationships have lower community attachment levels and are more likely to express their dissatisfaction with their places. Physical characteristics of a place are also essential to establish ties with a place. The availability of natural spaces close to the residential area, including urban parks, lakes, and rivers, and the existence of pleasant architectural items in the city are some aspects that help people grow more attached to a place (Bonaiuto et al., 1999). In addition, earlier studies demonstrated that individuals are more attached to the areas where they can walk safely and which are planned in a way to encourage positive social interactions (Kim & Kaplan, 2004; Manzo, 2018).

Social context is also important for establishing emotional connections with places. People may facilitate their attachment processes by creating positive relationships with neighbors and establishing ties with their community. Scannell and Gifford (2013) posited that having positive relationships with others in a community (e.g., neighborhoods, housing estates) can present numerous advantages to individuals, receiving getting emotional support from others and maintaining a sense of safety. Also conceptualized as social capital (Putnam, 2000), these benefits have a key role in determining individuals' perceived safety (Dallago et al., 2009). Specifically, the authors indicated that social capital mediated the relationship between place attachment and a sense of safety. In parallel with this finding, Brown et al. (2004) argued that lower place attachment and perceived incivility are two important determinants of crime. Particularly, authors suggested that individuals living in socially connected block of flats had lower levels of crime perception. Besides, Brown and Altman's (1983) paper indicated that more personalized residents (which is an indicator of higher place attachment levels) were less appealing to thieves.

Earlier studies used various terms to define people-place relationship including, sense of place (Tuan, 1977), place attachment (Scannell & Gifford, 2017), place dependence (Stokols & Shumaker, 1981), and place identity (Twigger-Ross & Uzzell, 1996). Although these studies from the various disciplines including psychology, sociology, and anthropology have enriched the field, there is no consensus on how to define this relationship best (Hidalgo & Hernandez, 2001). Among the abovementioned terms, place attachment and place identity are probably the most used ones in psychology literature. Although some previous studies consider these two the same (e.g., Brown & Werner, 1985), they differ from each other. While place attachment refers to an emotional connection that individuals form with particular places, place identity can be conceptualized as a part of self-identity that individuals identify themselves with a specific place (Hernández et al., 2007). In other words, a place can be considered a social category and individuals may socially identify themselves with specific places (Twigger-Ross & Uzzell, 1996). According to Hogg and Abrams (1988, p. 22), social identification is "identity contingent self-descriptions deriving from membership in social categories (nationality, sex, race, occupation, sports teams)." In this regard, a person from İstanbul might describe himself/herself as İstanbulite, for example. In addition, developing a place identity requires time and it is mostly formed after developing an emotional bond to a place. So, although place attachment and place identity are strongly correlated, the latter is the consequence of the former one (Hernández et al., 2007).

Quality of Life

WHO (1995, p. 1405) defines the quality of life as "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". As understood from this conceptualization, the quality of life is an overarching concept encompassing physical, psychological, social, and environmental health indices (WHO, 1998). Although the term includes the abovementioned subdimensions, most research has focused on the individual, and neglected social and contextual influences on the quality of life (Uzzell & Moser, 2006). The circumstantial effects on quality of life should not be underestimated since earlier studies stated that these factors including unemployment (Clark & Oswald, 1994), poverty (Ritsher et al., 2001), and pollution (Vert et al., 2017) adversely affect the quality of life and well-being. In addition, previous studies demonstrated that the availability of walking areas in the neighborhood and the city (Wang & Yang, 2019), access to restorative places including urban parks and forests (Sugiyama et al., 2008), and cheap and accessible public transportation system (Mental Health Action Group, 2011) positively affect life quality and well-being.

Individuals' connections to places also affect their quality of life and well-being (Dallago et al., 2009; Harris et al., 1995; Scannell & Gifford, 2017). It has been predominantly found that the emotional and

cognitive connection between individuals and their environments benefit both people and places. Earlier literature suggested that place attachment is mainly linked to higher levels of well-being (Hartig et al., 2001), greater social capital (Kyle et al., 2004), attenuation of daily stress (Jorgensen et al., 2007), and a better quality of life (Harris et al., 1995).

Place Attachment and Quality of Life Research in Academic Environments

People and place relationships were examined on different scales, including homes (Porteous, 1976), neighborhoods (Bernardo & Palma-Oliveira, 2016; Hidalgo & Hernandez, 2001), and cities (Göregenli et al., 2014; Lalli, 1992; Lewicka, 2010). However, the number of studies investigating this relationship and its consequences in academic environments is relatively low. Previous research (e.g., Arslan & Coşkun, 2020; Arslan & Coşkun, 2023) on this topic primarily focused on predictors and outcomes of students' attachment in elementary or secondary schools.

Earlier studies demonstrated that a higher level of school attachment is associated with numerous variables, including lower levels of improper behavior in learning environments (Stewart, 2003), lower levels of aggression (Hill & Werner, 2006), higher levels of academic achievement (Cemalcılar, 2010; Goodenow, 1993). In addition, studies suggested that school attachment played a protective role in risky sexual behaviors (Yi et al., 2010) and early offending (Spratt et al., 2005). On the other hand, a qualitative study indicated that students with low school attachment feel lonesome and socially isolated (Mouton et al., 1996). These studies also indicated that these students are not adequately supported by their friends and teaching and administrative staff.

Previous studies highlighted that positive interactions with others in the university help students feel attached to their campus environments (France et al., 2010; Freeman et al., 2007). These findings are in parallel with other studies exploring the role of social context in establishing place attachment (Bonaiuto et al., 1999; Dallago et al., 2009; Scannell & Gifford, 2013). Similar to other learning environments, including primary and secondary schools, students' attachment to university campus environment is associated with numerous factors, including academic success (Freeman et al., 2007; Li, 2011; Osterman, 2000) and lower rates of psychological disorders (Xie & Zhang, 2005, as cited in M. Xu et al., 2015).

As indicated in earlier studies (Brooks & DuBois, 1995; Fisher et al., 1986), being far away from home is associated with homesickness. Higher degree of homesickness is also reported for students who have lower levels of social support (Newland & Furnham, 1999), for first-year students (Fisher et al., 1986; Holmbeck & Wandrei, 1993), and those who have lower degrees of internal locus of control (Tognoli, 2003). However, developing positive bonds with a specific environment was also found to reduce homesickness. Scopelliti and Tiberio (2010) demonstrated that attachment to a new place might help undergraduate students eliminate the effects of homesickness.

The Current Study

The number of studies that explore students' attachments to university campuses is relatively low. So, the main aim of this study is to understand possible predictors and outcomes of university campus attachment. Specifically, this study seeks to comprehend how university students' attachment to the university campus influences their quality of life and what the role of their university identity is in this relationship. Considering the literature that was covered earlier in this paper, we hypothesize that socio-demographic variables, including the level of study, distance to campus, sense of safety, and the satisfaction with physical and social facilities of the campus would predict university campus attachment. Specifically, we expect that students who spent

more years on the campus, who can arrive at the campus shortly, who feel safe on the campus, who frequently use the social and physical and social facilities of the campus have greater campus attachment scores. We also hypothesize that higher level of campus attachment result in having a high level of strength of identification, which in turn result in a high level of quality of life.

Method

Participants and Procedure

The data was collected from a public Turkish university's students in exchange for course credit. Participants completed the study's surveys online. Two hundred and ninety-six people (226 female, 68 male, one nonbinary, and one unspecified) ranging in age from 18 to 40 years ($M = 21.9$, $SD = 2.87$) participated in this study. Ethical approval was obtained from The Scientific Research and Publication Ethics Committee of Middle East Technical University (Decision Number: 066 – ODTU - 2020).

Measurements

Demographic Information Form: The following questions were asked to depict the participants' demographic characteristics: age, gender, level of study, GPA, place of residence, distance to campus, perceived safety on the campus, and satisfaction with campus facilities. Place of residence refers to "where do you live?". Distance to campus refers to "how long does it take to reach the university campus from where you live?". Lastly, perceived safety in campus refers to "how safe do you feel at your university?" and satisfaction with facilities of campus refer to "how satisfied are you with the physical and social facilities at your university's campus?".

Group Identification Scale: We measured the strength of identification with the university via a used scale (Demir et al., 2018). The scale consists of four items ($\alpha = .86$) such as "how important is it to you to be a member of your university?". Participants specified their agreement with each item on a 5-point Likert-type scale on this and all other scales. Each items' point was specified based on the meaning of the item. For example, the item "how important is it to you to be a member of your university?" ranged from 1 = totally unimportant to 5 = extremely important.

University Place Attachment Scale: Li (2011) developed this scale to measure university students' attachment to their university campuses. The original version of the scale consists of 30 items ($\alpha = .94$) that ranged from 1 = totally disagree to 5 = totally agree. This measure was adapted to Turkish by Yaşaroğlu (2017). The Turkish version of this measure has 17 items ($\alpha = .92$) and explained 43.64% of the total variance. The example item for this scale is "I like my university".

WHOQOL-BREF-TR: As developed by World Health Organization (1998), WHOQOL-27 aims to measure individuals' perceptions of their physical (e.g., pain), psychological (e.g., negative and positive affect), social (e.g., social support), and environmental (e.g., the quality of physical environment) well-being. The scale consists of 27 questions and was adapted to Turkish by Eser et al. (1999). The internal reliability scores of the Turkish version are .83 for physical health, .66 for psychological health, .53 for social health, .73 for environmental health, and .73 for national environmental health. However, upon the request of The Human Subject Ethics Committee of the institution, we had to exclude the question "how satisfied are you with your sex life?". Since our sample consisted of undergraduate students, the ethics committee considered that this question may disturb some of our participants.

Method of Analysis

We performed a path analysis using jamovi (Gallucci, 2021) to test the effects of exogenous demographic variables on the endogenous place attachment, strength of identification, and quality of life variables. In addition, jamovi GLM mediation model (Gallucci, 2020) was utilized to test the indirect effects in the path model. The bootstrapping procedure with 5000 iterations was used to obtain 95% confidence intervals (CIs). We firstly checked multivariate outliers in cases with Mahalanobis distances. After deleting four multivariate outliers, we detected and deleted one univariate outlier using the critical z value of ± 3.29 in all variables.

Results

Table 1 presents the study's sample characteristics. In addition, Table 2 shows the means, standard deviations, and correlations among all variables.

Comparing gender on campus attachment, women ($M = 4.33$, $SD = .53$) stated significantly higher campus attachment scores than men ($M = 3.98$, $SD = .65$), $t(292) = 4.50$, $p < .001$. In addition, regarding staying in university dormitories or in the neighborhood, most women (one hundred forty-four) reported that they stayed on or near the campus.

Table 1
Demographic Information for All Participants

Variables	N	%	Variables	N	%
<i>Gender</i>			<i>Distance to Campus</i>		
Women	226	76.4	On-campus	140	47.3
Men	68	23	<30 min.	80	27
Nonbinary	1	0.3	Between 30 min. and 1 hour.	47	15.9
Unspecified	1	0.3	> 1 h.	29	9.8
<i>Level of Study</i>			<i>Perceived Safety</i>		
Preparatory year	3	1	1 = Not at all	2	0.7
First grade	74	25	2	8	2.7
2nd grade	95	32.1	3	54	18.2
3rd grade	60	20.30	4	146	49.3
4th grade	46	15.5	5 = Very	86	29.1
Graduate	18	6,1	<i>Satisfaction with Facilities of Campus</i>		
<i>GPA</i>			1 = Not at all	4	1.4
0.00 – 1.00	5	1.7	2	15	5.1
1.00-2.00	18	6.1	3	65	22.0
2.00-3.00	98	33.2	4	181	61.1
3.00-3.50	67	22.7	5 = Very	31	10.5
3.50-4.00	107	36.3	<i>Age</i>		
<i>Place of Residence</i>			M	SD	
With my family	80	27.0	21.90	2.87	
In campus dormitories	143	48.3			
In dormitories off-campus	5	1.7			
In the neighborhood close to the campus	41	13.9			
In another neighborhood	27	9.1			

Path Analysis

To analysis serial mediation, we employed jamovi Path Analysis. Strength of identification, campus attachment, and the quality of life were categorized as endogenous variables. Moreover, the exogenous variables of analysis were level of study, distance to campus, perceived safety in campus, and satisfaction with campus facilities. The model fit was acceptable for data; $\chi^2 (n = 296, df = 9) = 34.270, p < .001$, comparative fit index (CFI) = .94, root mean square error approximation (RMSEA) = .09 (see Bentler, 1990 for criteria for indices of model fit).

Table 2
Descriptive Statistics, Internal Reliabilities and Bivariate Correlations Between Study's Variables

Variables	1	2	3	4	5	6	7	8	9
1. Level of Study	—								
2. GPA	.16**	—							
3. Place of Residence	-.11	-.02	—						
4. Distance to Campus	.10	.08	-.79***	—					
5. Perceived Safety in the Campus	.13*	.19**	-.05	.06	—				
6. Satisfaction with Campus Facilities	-.02	.12*	-.03	.00	.27***	—			
7. Campus Attachment	.04	.15**	.09	-.06	.28***	.30***	(.92)		
8. University Identification	.12*	.18**	.08	-.07	.29***	.25***	.81***	(.86)	
9. Quality of Life	.05	.20***	-.05	-.07	.32***	.23***	.29***	.31***	(.88)
M	3.44	3.86	3.91	1.88	4.03	3.74	4.25	4.09	3.49
SD	1.26	1.04	1.28	1.01	.80	.76	.58	.77	.45

Notes. 1) Cronbach Alpha coefficients for the scales can be seen in parentheses.
2) M = Mean. SD = Standard Deviation. N = 296. * $p < .05$, ** $p < .01$, *** $p < .001$.

Considering the effect of demographic variables on campus attachment, satisfaction with facilities of campus ($b = .18, SE = .04, z = 4.30, p < .001, 95\% CI = [.185, .241]$) and perceived safety on the campus ($b = .16, SE = .04, z = 3.90, p < .001, 95\% CI = [.162, .221]$) were significant predictors of campus attachment.

Campus attachment ($b = 1.05, SE = .04, z = 23.73, p < .001, 95\% CI = [1.053, .810]$) significantly predicted the strength of identification. Moreover, identification ($b = .19, SE = .03, z = 5.74, p < .001, 95\% CI = [.186, .316]$) was a significant predictor of quality of life. The overall explained variance in campus attachment was $R^2 = .14$, in identification $R^2 = .66$, in quality-of-life $R^2 = .10$. The parameter estimates are shown in Figure 1.

The model revealed several serial mediations. The variables of campus attachment and the strength of identification played a mediator role in the model. The indirect effect of campus attachment (*indirect effect*; $b = .13, SE = .06, z = 2.27, p = .02, 95\% CI = [.018, .246]$) on the quality of life via identification was significant, indicating that a higher level of campus attachment resulted in a high level of strength of identification, which in turn resulted in a high level of quality of life.

In addition, the indirect effect of perceived safety in campus (*indirect effect*; $b = .17, SE = .04, z = 3.84, p < .001, 95\% CI = [.081, .251]$) and satisfaction with campus facilities (*indirect effect*; $b = .19, SE = .04, z = 4.21, p < .001, 95\% CI = [.102, .278]$) on the strength of identification via campus attachment was significant.

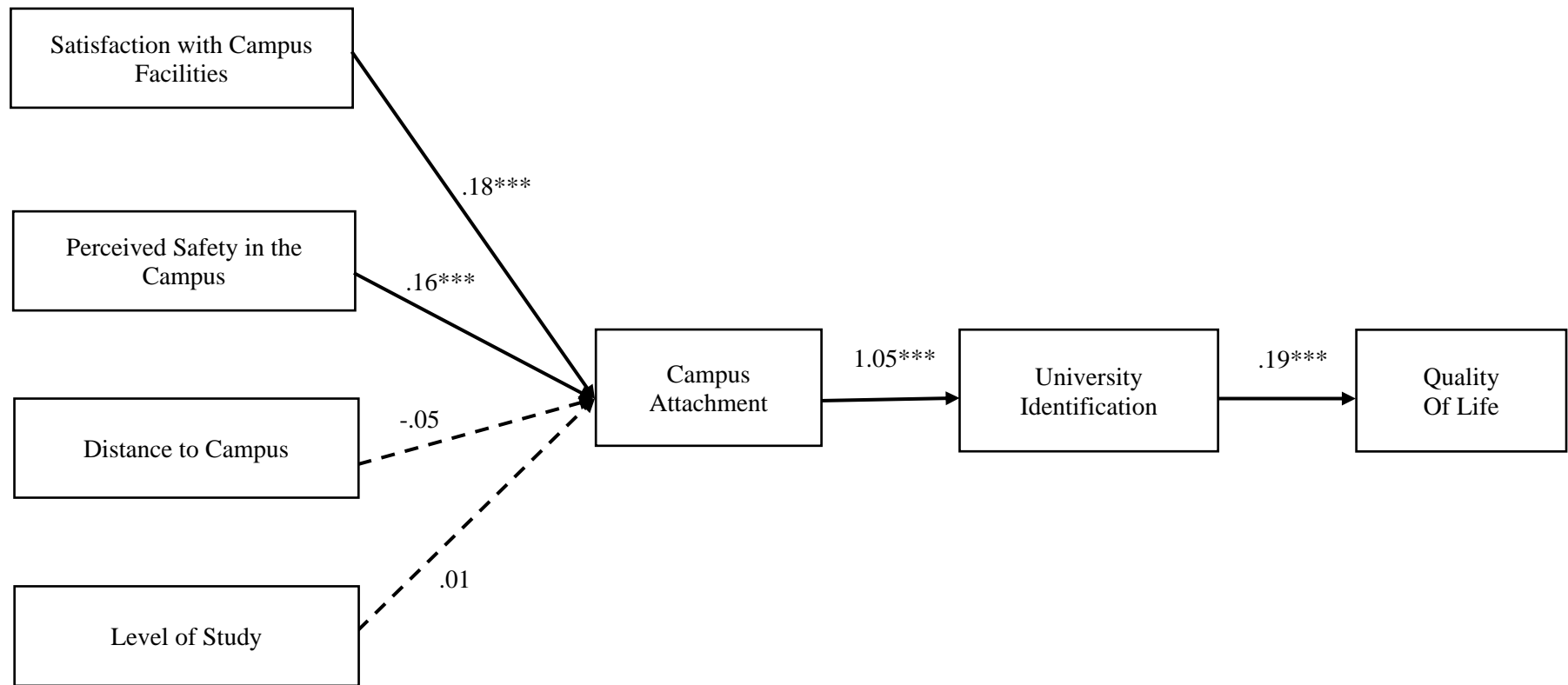


Figure 1. The mediating role of campus attachment and university identification between demographic variables and quality of life.

Note 1. Numbers are unstandardized coefficients; *** $p < .001$.

Note 2. Nonsignificant paths are displayed in the dashed line.

Discussion

The current study seeks to understand possible determinants and consequences of university campus attachment in a non-WEIRD sample. Specifically, we aim to comprehend how university students' bonding to campus influences their life quality and the role their identification with the university in this relationship. Overall, we found that perceived security in the campus and the satisfaction with the physical and social facilities of the university predict greater levels of campus attachment. Our results also showed that campus attachment has a positive indirect effect on the life quality via university identification. In this section, these findings will be discussed.

Based on findings from earlier studies, we hypothesized that the years spent on the campus are positively associated with campus attachment. Earlier studies indicated that the time spent in a place is one of the most consistent predictors of place attachment. This is probably because of the time required to establish meaningful relationships with other people and to generate positive memories there (Lewicka, 2011; Scannell & Gifford, 2013; Twigger-Ross & Uzzell, 1996). In our study, we measured the time spent at the university with the question of "what stage are you at in your education at your university? (1= English Preparatory School, 6= Graduate Student)".

However, contrary to our expectations, our results suggest that campus attachment is independent of the stage of education. In other words, regardless of the years spent at the university, all students have higher levels of campus attachment. These findings are also parallel with Bahi-Fleury's (1996 as cited in Hernandez et al., 2007) and Harris et al.'s (1996) findings that no clear association was observed between length of residence and place attachment. This may be because Middle East Technical University (METU) is one of the highest-ranking universities in Türkiye. According to URAP (University Ranking by Academic Performance) Research Laboratory, METU is one of the best universities in Türkiye (URAP, 2021). The ranking is based on 6 indicators: the number of articles published, the total number of citations, the total number of documents including conference papers and books, article impact, citation impact, and the global acceptance of the university. In addition to its academic performance, METU offers to its students a wide range of opportunities, including a high number of exchange agreements with universities in Europe and the US, and a great number of restorative environments where students spend their leisure time and perform various activities (General Information About METU, 2021). For these reasons, METU has become a point of attraction for incoming students even before they join the institution.

On the other hand, we found a clear link between the level of study and university identification. This is perhaps because developing a place identity requires time, as earlier studies suggested (Hay, 1998; Hernández et al., 2007). Although some studies (Brown & Werner, 1985) consider place attachment and place identity the same, they differ from each other. For example, Hernandez et al. (2007) suggested that place identity develops after place attachment, although these two are highly correlated.

As mentioned earlier, social context is also crucial for developing positive bonds to a place and perceiving a place secure has a huge role in the attachment process. Karsono et al.'s (2016) study asserted that sense of safety, comfort and place distinctiveness have an important effect on individuals' identification with a local place. Scannell and Gifford (2013) proposed that being a part of a social community can provide various advantages, including receiving emotional guidance from others during difficult times, receiving assistance for domestic work, and giving us a sense of security. These benefits are also conceptualized as the components of social capital (Narayan & Cassidy, 2001; Putnam, 2000). According to Dallago et al.'s (2009) multinational

study conducted in thirteen countries, place attachment influence one's sense of safety in a place through social capital. The findings of our study are in parallel with earlier studies. Findings demonstrated that the sense of safety is an important constituent of campus attachment and other relevant variables. Our findings showed that feeling safe on the campus is positively associated with higher GPA and higher life quality. Sense of safety is also related to greater levels of campus attachment, university identity, and the use of campus facilities.

Physical characteristics of a place are an integral part of the attachment process, as indicated earlier (Cantrill, 1998). Areas that encourage residents to walk and exercise freely in the neighborhood were found to be associated with lower levels of obesity (Saelens et al., 2003), depression (Hanson & Jones, 2015), and anxiety (Rosenbaum et al., 2016) rates. In addition, previous studies also suggested that the existence of urban parks, trees, forests is another essential part of a good quality environment. Access to these restorative environments is persistently found to be positively associated with life satisfaction (Ambrey & Fleming, 2014) and physiological and mental health (Hartig & Mang, 1991). Restorative environments also affect place attachment indirectly through promoting social activities. For example, Kim and Kaplan's (2004) study demonstrated that these areas are associated with higher levels of community attachment, and users perceive greater safety there. As mentioned earlier in this paper, METU provides its students a high number of restorative and pro-social areas, including a 3043 hectares forest area, a natural lake, sports facilities (i.e., swimming pools, tennis courts, basketball, and soccer fields), and restaurants. Students at METU spend their free time there and carry out a wide variety of activities, including exercising and having a picnic. Similar to the abovementioned studies, our study also shows that students who appreciate the physical and social facilities of the campus also report greater attachment to the METU campus. They also have higher levels of university identity, greater life quality, and perceive more safety in the campus environment.

Contrary to our expectations, findings demonstrated that the time needed for arriving at the campus and place of residence are not associated with campus attachment. Results showed that most of our participants reside in dormitories inside the campus or reach the campus within less than an hour. This surprising finding may stem from our sample's characteristics. Specifically, only 9.8% of our participants stated that they spend more than an hour to reach the campus. It means that almost everyone participating in this study reach the campus easily, so they can maintain their emotional bonds with the campus. In addition, as Davis and Mullen (2015) asserted, the place itself is more important than its distance. Specifically, METU students consider the campus a symbolic place that they always want to protect.

According to our results, university campus attachment indirectly affects the life quality of students through identification with the university. Many previous studies indicated that being emotionally attached to a place has positive consequences for individuals' life quality and well-being (Harris et al., 1995; Rollero & De Piccoli, 2010). Scannell and Gifford's (2017) study suggested that place attachment has numerous benefits to one person, including self-relaxation, experiencing positive emotions, and regulating privacy. In addition, they also argued that being bonded to a place supports individuals' memories and helps people feel at home. So, individuals may connect themselves to their social groups in a symbolic way. In parallel to this finding, our results confirmed that symbolically important places support individuals' social identity, and in turn affects their life quality positively. Previous studies also maintained that a wide range of places, from cultural and religious heritages to neighborhoods, have meanings for individuals (Gustafson, 2001; Mazumdar & Mazumdar, 2004). However, the role of social identification with a place in this relationship has not been explored in learning institutions. The most important contribution of our study is to highlight how identification with a place played an important role in the quality of life in academic environments. Most research investigating place identity and well-being is generally focused on natural environments. Specifically,

the study by Knez and Eliasson's (2017) demonstrated that visiting and remembering the landscapes where people identify with is positively associated with higher well-being for a Swedish mountain community.

To summarize, the main aim of the current study was to investigate predictors and outcomes of campus attachment in a sample of 296 Turkish university students. Particularly, we seek to understand whether university campus attachment predicted students' life quality, and how identification with university plays a role in this association. Our expectations are partially supported. As we mentioned earlier in this paper, students who perceive the campus more secure and who are satisfied with the physical and social facilities of the campus are more attached to the it. However, contrary to our hypotheses, the stage of education and distance between residence and campus are not related to campus attachment. Although possible causes of this finding were discussed earlier in this paper, we reiterate that METU and its campus are symbolically important for its current and prospective students. For the incoming Turkish students, METU has always been a university where they want to study since it is one of the highest-ranking universities in Türkiye (URAP, 2021), and it offers a wide variety of social and cultural opportunities to its students (General Information About METU, 2021). In addition, in an unpublished manuscript (Sarı & Öner-Özkan, in-press), METU students indicated that they feel "at home" on the campus since they can meet most of their needs there. Also, they feel responsible for the problems of the campus (e.g., littering, environmental degradation) and they want to take initiative on these issues.

Our findings also imply that the campus experience is an essential component of university education. Specifically, considering a great proportion of first-year students experience homesickness at the beginning of their university education process (Fisher et al., 1986), the influence of the social environment on the campus is undeniable. In addition, earlier studies indicated that the prevalence of psychological distress and depression among undergraduate students is quite high, and it results in lower levels of academic success (Andrews & Wilding, 2004; Stallman, 2010), adopting risk-taking behaviors (Hersi et al., 2017), and higher levels of drug use (Boys et al., 2001). On the other hand, previous studies suggested that positive bonds with the university campus may play an important role in overcoming the difficulties that students face. In the earlier literature, school attachment was associated with lower rates of aggression towards others (Hill & Werner, 2006), psychological disorders (Xie & Zhang, 2005 as cited in Xu et al., 2015), and higher levels of academic success (Osterman, 2000). Therefore, university authorities should not underestimate the campus atmosphere and they should develop various ways to strengthen students' bonds with the campus. Therefore, university authorities should not underestimate the campus atmosphere and they should develop various ways to strengthen students' bonds with the campus. Improving the quality of accommodation facilities provided to students (e.g., expanding the capacity of dormitories, creating habitable living spaces), increasing the number of restorative environments (e.g., green and blue spaces) in the campus, facilitating public transportation services to and within the campus, creating an atmosphere where all students can express themselves freely, and increasing the number of activities (e.g., concerts, theaters, seminars, career days) that will develop students both academically and culturally are among the possible strategies that could bolster campus attachment and foster university identification.

Because most of the study's sample live near and on campus, further studies should be conducted with different samples. As it is known, if students live in or near the campus, they can quickly and strongly feel attached to the campus. Furthermore, because most of the sample live close to campus, they can benefit more from the school's facilities, and as a result, they can be satisfied with the school. Moreover, since METU is one of the highest-ranking universities in Türkiye, students may strongly identify themselves with the university. Hence, the relationship between attachment to the campus and strength of identification with the

university is naturally expected to be high. Accordingly, a sample from the different universities will be helpful to investigate the relationship between campus attachment and university identification in this study's path model. Finally, we found a strong positive association between campus attachment and university identification. This high correlation coefficient may raise doubts about whether these two are conceptually distinct or not. However, as indicated previously in this paper, place attachment denotes the affective bond that individuals establish with specific locations, and place identity can be understood as a component of self-identity through which individuals associate themselves with a distinct place. Hence, although these two are highly associated, place identity is the consequence of place attachment (Hernández et al., 2007).

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