

Article

Place Attachment in Student Dormitories: An Analysis of Differences Across Socio-Spatial Variables

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Abstract

While place attachment (PA) is an important concept that varies across built environments, empirical research directly examining it in student dormitories remains limited. This study aims to investigate students' levels of PA to their dormitories across variables including gender, age, field of study, class level, degree level, campus location, family's region of residence, dormitory of residence, duration of residence, and floor level. The research scope encompasses five Ministry of Youth and Sports (GSB) dormitories in Kırklareli, Turkey, and their residents. Data were collected via a questionnaire from 450 participants selected using a stratified sampling method. The independent samples t-test and one-way ANOVA were utilized for data analysis. The results indicate that PA levels differ significantly according to gender, field of study, degree level, campus location, dormitory of residence, and floor level. In contrast, age, class level, family's region of residence, and duration of residence in the dormitory do not show significant differences. These findings highlight that socio-spatial dynamics are significantly associated with students' PA. Accordingly, to better accommodate the different needs related to these socio-demographic and spatial variables, dormitory designs might benefit from prioritizing human-scaled, context-integrated environments offering flexible personalization rather than uniform architectural solutions.

Keywords: place attachment; student dormitories; student housing; human–space interaction; environmental psychology; socio-spatial dynamics; quantitative analysis; Turkey

1. Introduction

The interaction between humans and space indicates that space cannot be explained solely by its geometric boundaries [1,2]. Space is constantly shaped and rendered meaningful by human sensory and everyday engagement [3–5]. In this process, through accumulated experiences and social values over time, the bond formed between humans and space [6,7] transforms a three-dimensional volume into a “place” with its own identity [8,9]. Both environmental psychology and architectural literature attribute the transformation of space into place to the cognitive, affective, and behavioral connections established between humans and the space [10,11].

“Place attachment”, as one of the fundamental reflections of the interaction between humans and space [12–14], is a dynamic bond that is built upon the meanings an individual ascribes to a place and their experiences over time [15,16]. The multidimensional bond supports users' sense of security, identity, and psychological well-being; facilitates their sense of ownership of the space; and helps prevent feelings of alienation [17,18]. This sentiment,



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which can develop at various spatial scales (room, home, neighborhood, city, country, etc.), also plays a significant role in the context of student dormitories [19,20], whose numbers and capacities are rapidly increasing on a global scale [21]. For young people embarking on a new life away from their family home, dormitories are more than just places to stay; they are new living spaces where daily life, learning, and social interaction practices take place together [22,23]. As a result, dormitories become environments where students manage privacy and territorial boundaries, personalize their space, and apply coping strategies in their daily lives [24–26]. The ability to express individuality and form a sense of community is essential for converting these standard rooms into meaningful places [27,28]. Conversely, when this transformation fails, insufficient place attachment in new living environments can lead to loneliness, loss of self-confidence, decreased motivation, psychological distress, and a tendency to leave the dormitory [29,30]. Therefore, it is of great importance for students to claim their dormitory spaces and develop a strong attachment to these spaces.

However, an examination of the literature on environmental psychology and architecture reveals that the concept of place attachment is predominantly addressed at the residential and neighborhood level [31–33], or within the context of specific built environments such as open public spaces [34–36]. In contrast, student dormitories exhibit a different dynamic of place attachment compared to residential properties and public open spaces, because they offer relatively temporary accommodation, have a high turnover of residents, and are designed for mass occupancy. Although there are international studies examining the place attachment developed by higher education students towards dormitory spaces [17,19,20,37], it is evident that existing research largely addresses this multidimensional process through a limited number of variables. In the Turkish context, the number of studies examining place attachment to student dormitories remains limited [26], and the national literature appears to focus predominantly on the physical conditions of the dormitories or general student satisfaction [38,39]. In this respect, it is noteworthy that empirical studies directly addressing students' place attachment are extremely limited, particularly in relation to the Ministry of Youth and Sports (GSB) dormitories, which have a capacity of approximately one million students nationwide [40]. GSB dormitories represent a unique institutional typology characterized by high spatial standardization, mass occupancy, and centralized management, which distinguishes them from university-managed or private housing options. As noted in the broader literature on institutional student housing, a high degree of standardization can restrict students' efforts to personalize their environment and build spatial identity [41]. Therefore, there is a conceptual gap regarding how such mass-occupancy, state-run environments impact residential satisfaction and the transition of a standard unit into a place of belonging [17,42,43]. In this context, it is important to conduct a comprehensive examination of how students' levels of place attachment vary according to variables such as gender, age, field of study, class level, degree level, campus location, family's region of residence, dormitory of residence, duration of residence, and floor level. While the functionality of the widely accepted "Place Attachment Scale" [33] has recently been adapted and examined for the student dormitory context [44], there remains a critical gap in understanding how this multidimensional bond manifests across these specific socio-demographic and spatial variables. These factors highlight the need to empirically examine place attachment in student dormitories within the framework of multidimensional variables.

Accordingly, the aim of this study is to determine the level of place attachment developed by students residing in GSB student dormitories and to analyze whether this attachment shows a statistically significant difference based on variables including gender, age, field of study, class level, degree level, campus location, family's region of residence, dormitory of residence, duration of residence, and floor level. Within the framework of this

objective, the spatial scope of the research is limited to all higher education GSB student dormitories operating in the central district of Kırklareli Province (Evlad-ı Fatihan Female, Hundi Hatun Female, Ahmet Cevdet Pasha Male, Şemseddin Sami Male, and Kırklareli Male Student Dormitories).

In line with this aim and scope, the main research question has been formulated as follows: Do students' levels of attachment to their dormitories show statistically significant differences according to these specified variables?

2. Place Attachment

2.1. Theoretical Background of Place Attachment

In the literature on environmental psychology, place attachment is a fundamental concept that refers to the totality of the cognitive, emotional, and behavioral bonds that individuals form with their physical environment [13,14]. The concept is studied across various disciplines—such as architecture, environmental sociology, human geography, and psychology—which has broadened its theoretical framework [11,45]. At the heart of this phenomenon lies the way in which the meanings people ascribe to a place evolve over time into a sense of belonging [15].

The theoretical foundations of place attachment are frequently discussed in the literature within the framework of two main approaches. The first approach is based on the “Attachment Theory” developed by Bowlby [46]. Originally developed to explain the emotional bond between an infant and their caregiver [47], this theory was subsequently adapted to the field of environmental psychology to explain human–environment interaction. In this context, it is argued that individuals can develop emotional bonds not only with other people but also with physical environments that provide a sense of security, continuity, and belonging [1]. The second approach, meanwhile, is based on an examination of the psychological responses individuals exhibit to the loss of their place of residence, particularly in processes such as urban regeneration, forced migration, and displacement. In this context, the phenomenon described by Fried [48] as “mourning the loss of home” demonstrates that, for individuals, a place is more than just a functional living space; it is a powerful emotional and meaningful element. Indeed, Fullilove [49] has also shown that the loss of a place can have significant effects on individuals' psychological well-being and sense of identity.

Place attachment is a complex concept [13], and various definitions exist in the literature. Relph [9] describes it as a unique emotional bond formed with an environment that meets basic human needs, while Tuan [50] focuses on the aesthetic, tactile, and emotional aspects of the concept. Low and Altman [14] define this phenomenon as a multifaceted bond between people and the places they consider significant; Hidalgo and Hernández [12] emphasize the emotional bond people form with places where they feel at ease and tend to linger. More recently, Scannell and Gifford [18] have defined the concept as a cognitive and emotional bond between individuals and the places they perceive as meaningful; Ardekani and Helmi [17] describe it as a strong bond between people and places that deepens over time.

2.2. General Structure of Place Attachment

The concept of place attachment is viewed as a multi-layered process that is constantly reconfigured over time [15,16]. One of the most widely accepted models in the literature, Scannell and Gifford's [11] tripartite organizing framework explains place attachment along three fundamental axes: person, place, and process. The person dimension encompasses the memories and symbols of the connection; the place dimension highlights the social

and physical characteristics of the space; and the process dimension reveals the affective, cognitive, and conative mechanisms of the connection [47].

Place attachment has been examined in various studies under the dimensions of place identity, place dependence, affective attachment, and social bonding [11,51,52]:

- **Place Identity:** This represents the cognitive dimension that becomes part of an individual's sense of self as a result of their interaction with the physical world.
- **Place Dependence:** This refers to a functional link in which actions and functional needs take precedence when individuals orient themselves towards a specific place.
- **Affective Attachment:** This indicates the degree of inner sense of belonging an individual feels towards a place, independent of objective assessments.
- **Social Bonding:** This encompasses the relationships formed between people and communities who share a space, and highlights the social capital aspect of the human-place interaction.

Studies that incorporate a temporal perspective into the structure of place attachment argue that the concept should also encompass the dimensions of "place memory" and "place expectation". While place memory represents the autobiographical link formed by past experiences, place expectation explains the psychological reflections of ideal experiences anticipated in the future [53].

Within the specific context of student dormitories, the relationship between place identity and social bonding becomes particularly important. Unlike permanent family housing, dormitories function as transitional environments where students must rapidly adapt to communal living. In this setting, place identity is continuously negotiated as students attempt to personalize their shared rooms and integrate their sense of self into a standardized architectural space [26]. Simultaneously, social bonding acts as a significant psychological buffer against the isolation of living away from home. The informal interactions in common areas and the peer support networks established within the dormitories are the primary mechanisms that build these social bonds, helping to overcome potential feelings of alienation [28,54]. Therefore, while these dimensions are theoretically distinct, they are closely connected in dormitory life, both contributing to how students transform an institutional space into a meaningful place.

Although place attachment is frequently conceptualized as a multidimensional construct, several studies have also operationalized it using an overall attachment score [12,33]. In places like student dormitories, elements such as place identity and social bonding are certainly central to the student experience. However, separating them can be difficult because they tend to blend into a general feeling of belonging [55].

From an analytical perspective, calculating a single total score is appropriate for this study. Testing ten different socio-spatial variables across multiple sub-dimensions would fragment the data, complicating the interpretation of findings and increasing the risk of statistical errors. Furthermore, our previous factor analyses (EFA and CFA) on this dataset demonstrated that the scale items naturally group under one factor [44]. This result is consistent with other studies where place attachment is calculated as a single score [56]. Therefore, while recognizing the importance of social and identity factors in dormitories, this study uses the total place attachment score for all analyses.

The components that determine the structure and intensity of place attachment are examined under three categories: socio-demographic (particularly length of residence), social (perception of safety and social capital), and physical (aesthetic qualities and architectural character) factors [13,57]. Furthermore, the scale of the place (room, home, building, street, city, etc.) is also a significant factor associated with the level of place attachment [12,33].

2.3. Importance and Benefits of Place Attachment

Place attachment, which arises as a natural consequence of the interaction between humans and their physical environment, is regarded as one of the individual's fundamental psychological needs [18]. The literature on environmental psychology demonstrates that a strong sense of place attachment plays a supportive role in mental health. Indeed, experiences of forced displacement and rootlessness are associated with alienation, anxiety, and orientation difficulties, highlighting the function of place attachment in providing security and continuity [49]. A perception of a safe and familiar environment enhances individuals' capacity to cope with stress and positively influences their psychological well-being [18]. Furthermore, establishing a strong connection to places where individuals feel secure reduces feelings of loneliness and strengthens emotional bonds [15,50].

Place attachment has significant implications not only at the individual level but also at the societal level. It also supports social solidarity and social capital; it has been observed that individuals with a strong sense of place attachment behave more responsibly towards their surroundings and are more active in local participation processes [33]. This attachment encourages the ownership, personalization, and protection of the environment against environmental degradation. Indeed, Devine-Wright [58] demonstrates that place attachment strengthens protective behaviors and contributes to spatial sustainability.

Recent studies also show that place attachment positively contributes to environmental quality and physical resilience [59,60]. Users who develop a strong place identity take on a preventive role in combating physical deterioration by taking greater care of the space. Furthermore, this process, which supports a connection with nature and environmentally friendly behavior, is further strengthened by high-quality spatial design decisions [32,57]. Ultimately, place attachment is not merely an individual sentiment; it preserves environmental quality, supports social resilience, and ensures the sustainability of the human–space relationship.

2.4. Place Attachment in the Context of Student Dormitories

Although the literature on place attachment has largely been examined in the context of housing, neighborhoods, and public open spaces [31,33,34], student dormitories offer a unique area of research within this framework. Due to their temporary nature, high user turnover, and characteristics of mass usage, dormitories produce a different dynamic of place attachment compared to housing [19,61]. While international studies have demonstrated that students develop a sense of place attachment to their dormitories [17,20,37], it is evident that this process is generally examined through a limited set of variables. To address this limitation, it is necessary to explain how institutional dormitories become, or fail to become, meaningful places within the students' everyday lives [23,25].

Today, student dormitories are primary living spaces that meet students' needs for living, learning, and social interaction [22,23]. Furthermore, they are key environments where students construct their personal identity, negotiate territorial boundaries, and manage social relations [24,26]. However, various challenges may arise in these environments, such as a lack of privacy, a feeling of overcrowding, an inability to establish a sense of belonging to the space, and social adjustment issues [37]. If these challenges are not resolved and rigid institutional structures restrict personalization, dormitories fail to transform into meaningful places and remain merely functional units [41,42]. Place attachment emerges as a key factor in students' ability to adapt to a new environment and maintain their psychological well-being. Research suggests that loneliness and adjustment problems increase in individuals who cannot form a connection to the new environment; conversely, a strong sense of place supports coping with stress, quality of life, and academic success [17].

The development of place attachment in student dormitories is closely linked to the physical facilities offered by the space and the structure of the social environment [20]. To better understand this relationship, the environment–behavior perspective provides a useful conceptual framework, suggesting that place attachment can be understood as developing through the continuous interaction between individuals and their physical and social environments [1,47]. Similarly, Canter [62] conceptualizes place as an experiential construct shaped through the interrelationship between physical settings, activities, and meanings. Within this framework, room layouts equipped with clear privacy partitions may enable students to regulate social exposure and establish territorial boundaries, which can help mitigate crowding stress and support affective attachment [24,63]. Likewise, the physical configuration of communal spaces may support social interaction and social connectivity among residents [27]. Building on these socio-spatial mechanisms, specific physical factors such as room size, thermal and acoustic comfort conditions, the perception of social density, and privacy control are associated with the development of place attachment [38,64]. Alongside these structural factors, allowing students to personalize their space is a critical strategy for reflecting identity and increasing residential satisfaction in mass housing [26,43]. In the social dimension, roommate compatibility, management transparency, and the perception of safety facilitate the adoption of the space [65]. In particular, the design of shared relaxation and study areas, along with opportunities for informal learning, helps students develop a sense of community, thereby increasing their attachment to the space [23]. Through these collaborative social interactions, students not only build a cohesive community but also enhance their overall psychological resilience and academic motivation [28,54].

Ultimately, in student dormitories, place attachment refers to a structure in which the physical facilities of the space and the social needs of students come together to support psychological and academic well-being [21,66]. Achieving this well-being indicates that an institutional accommodation unit has successfully become a meaningful place through privacy management, identity expression, and social integration [27]. While recent research has investigated the structural validity of place attachment in GSB dormitories [44], there remains a significant gap in understanding how this attachment level varies across diverse student profiles. Investigating these variations through socio-demographic and spatial variables is essential for providing a nuanced understanding of student–resident interactions and developing human-centered dormitory designs.

3. Methodology

3.1. Study Area and Spatial Context

The study was conducted in five Ministry of Youth and Sports (GSB) dormitories in the Kırklareli city center, with a combined capacity of 6954 students. To establish a spatial baseline, the urban locations, building forms, and interior configurations of each dormitory are detailed below.

3.1.1. Evlad-ı Fatihan Female Student Dormitory (D1)

Opened in 2017 with a total capacity of 2250 students, Evlad-ı Fatihan Female Student Dormitory (D1) is located across from the Kırklareli University Kayalı Campus, 9.3 km away from the city center (Figure 1a). The dormitory complex consists of three 5-story L-shaped accommodation buildings and one rectangular dining and social building. It is surrounded by rural areas and is located directly adjacent to the Hundi Hatun Female Student Dormitory (D2) (Figure 1b). The exterior architecture reflects a standard mass-housing typology (Figure 1c).

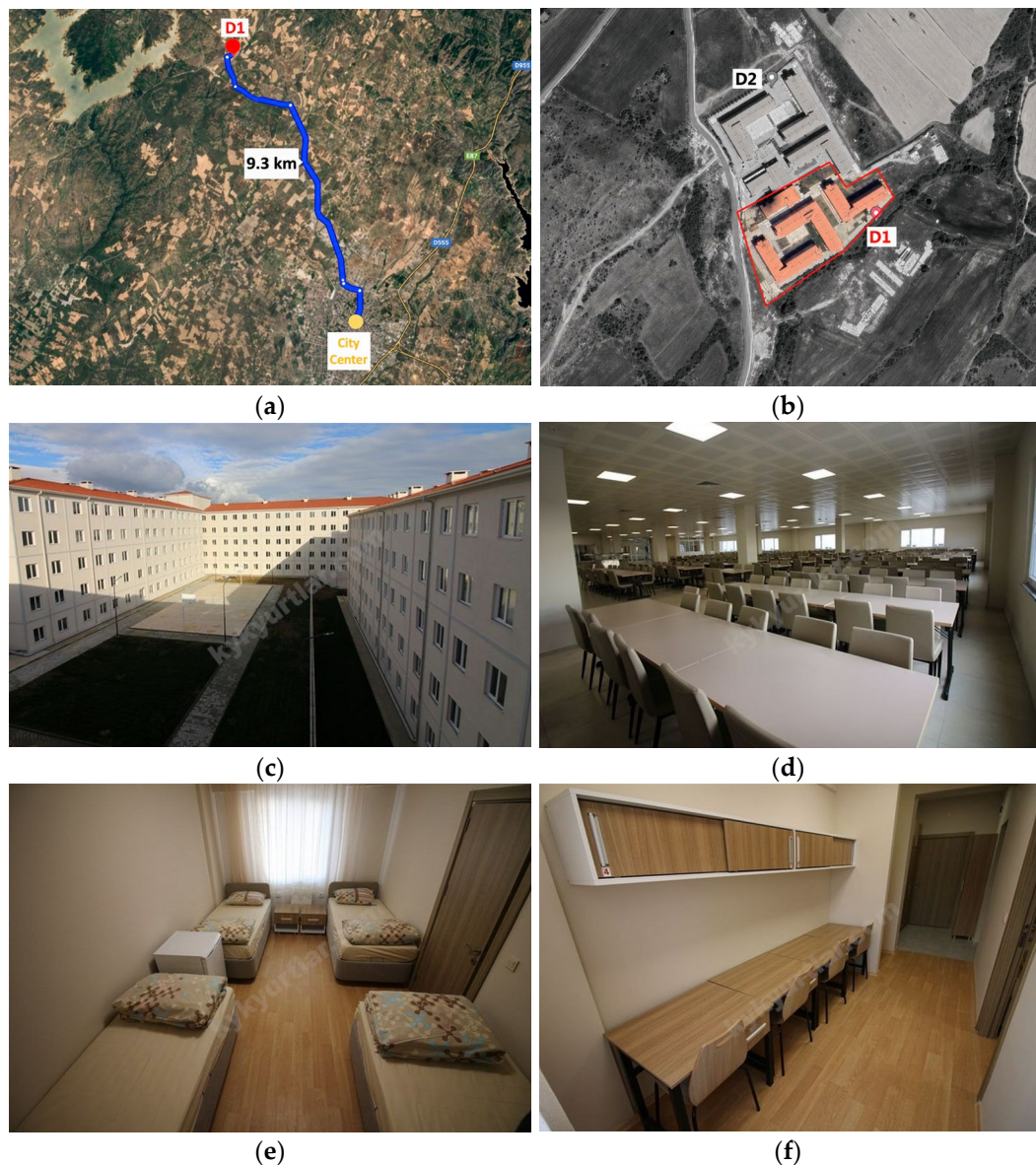


Figure 1. Spatial context of Evlad-1 Fatihan Female Student Dormitory (D1): (a) Distance of the dormitory to the city center (Google Earth); (b) Satellite image of the dormitory complex and its immediate surroundings (Google Earth); (c) Exterior view of the dormitory buildings [67]; (d) Interior view of the dining hall unit [67]; (e) Standard room unit showing the sleeping area [67]; (f) Standard room unit showing the study area [67].

The dormitory complex includes 4-person rooms, study halls, a dining hall (Figure 1d), a canteen, laundry and ironing rooms, an infirmary, a conference hall, administrative offices, and security units, as well as circulation areas and gardens. The student rooms consist of an entrance hall with wardrobes, a wet area with a bathroom and toilet, a sleeping area for four students with beds, nightstands, and a mini-refrigerator (Figure 1e), and a study area with individual desks and chairs (Figure 1f).

3.1.2. Hundi Hatun Female Student Dormitory (D2)

Opened in 2016 with a capacity of 2000 students, Hundi Hatun Female Student Dormitory (D2) is situated across from the Kırklareli University Kayalı Campus, 9.4 km away from the city center (Figure 2a). The complex is composed of three 5-story L-shaped accommodation buildings and one L-shaped building for dining and social activities. It is surrounded by rural land and is located directly next to the Evlad-1 Fatihan Female Student

Dormitory (D1) (Figure 2b). The exterior view follows a standard institutional building typology (Figure 2c).

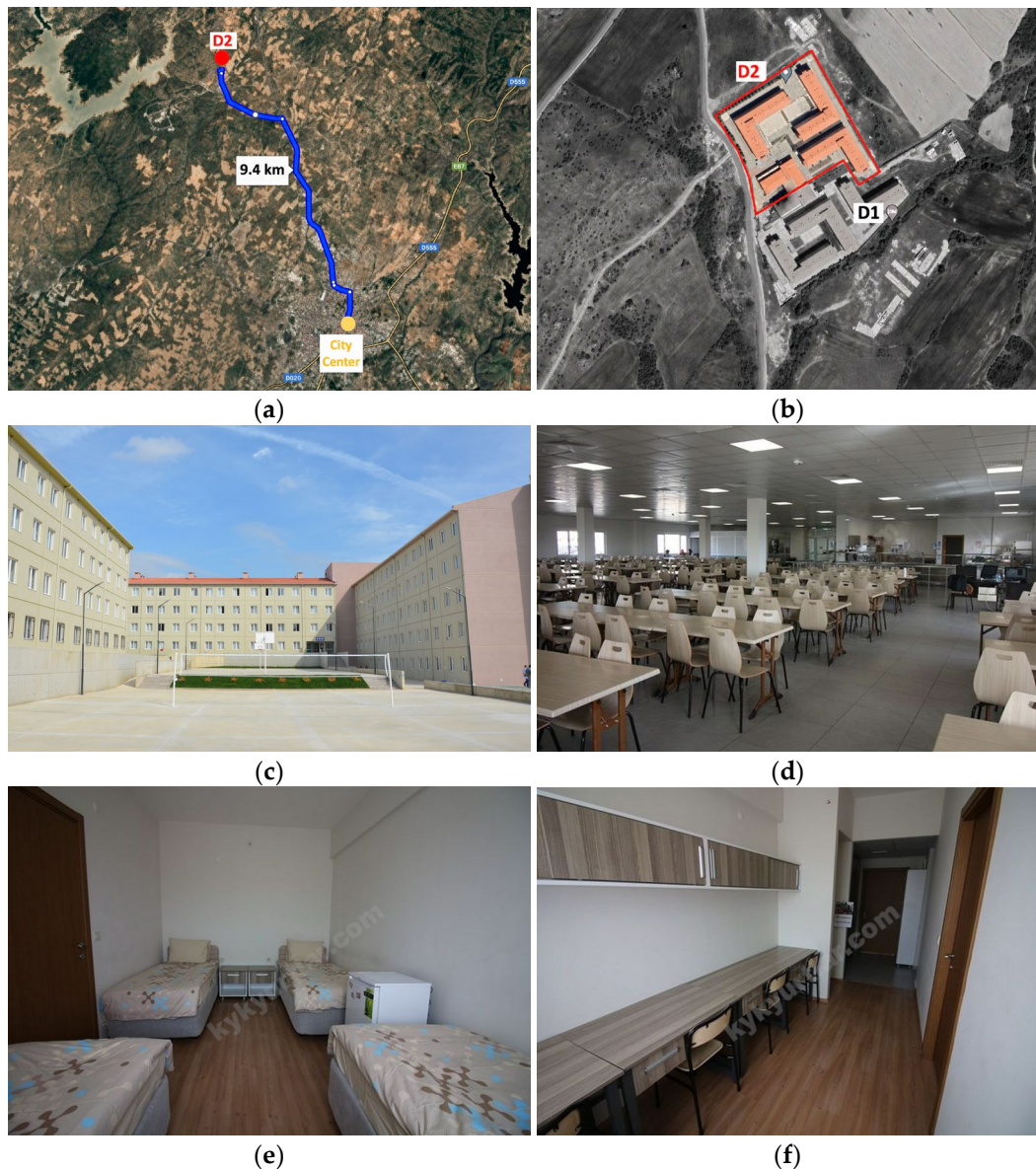


Figure 2. Spatial context of Hundi Hatun Female Student Dormitory (D2): (a) Distance of the dormitory to the city center (Google Earth); (b) Satellite image of the dormitory complex and its immediate surroundings (Google Earth); (c) Exterior view of the dormitory buildings [67]; (d) Interior view of the dining hall unit [67]; (e) Standard room unit showing the sleeping area [67]; (f) Standard room unit showing the study area [67].

The complex features 4-person rooms, study halls, a dining hall (Figure 2d), a canteen, laundry and ironing rooms, an infirmary, a conference hall, administrative offices, and security units, along with circulation spaces and gardens. The interior of the rooms includes an entrance hall with wardrobes, a wet area with a bathroom and toilet, a sleeping area for four students with beds, nightstands, and a mini-refrigerator (Figure 2e), and a study area with individual desks and chairs (Figure 2f).

3.1.3. Ahmet Cevdet Pasha Male Student Dormitory (D3)

Opened in 2017 with a capacity of 1500 students, Ahmet Cevdet Pasha Male Student Dormitory (D3) is located on the road to the Kırklareli University Kayalı Cam-

pus, 7.0 km away from the city center (Figure 3a). The complex consists of two 4-story buildings—one E-shaped and one rectangular. It is surrounded by rural land (Figure 3b). The dining and social areas are integrated into the E-shaped building. The exterior architecture reflects a standard institutional style (Figure 3c).



Figure 3. Spatial context of Ahmet Cevdet Pasha Male Student Dormitory (D3): (a) Distance of the dormitory to the city center (Google Earth); (b) Satellite image of the dormitory complex and its immediate surroundings (Google Earth); (c) Exterior view of the dormitory buildings [67]; (d) Interior view of the dining hall unit [67]; (e) Standard room unit showing the sleeping area [67]; (f) Standard room unit showing the study area [67].

The complex features 4-person rooms, study halls, a dining hall (Figure 3d), a canteen, laundry and ironing rooms, an infirmary, a conference hall, administrative offices, and security units, alongside circulation spaces and gardens. The interior of the rooms includes an entrance hall with wardrobes, a wet area with a bathroom and toilet, a sleeping area for four students with beds, nightstands, and a mini-refrigerator (Figure 3e), and a study area with individual desks and chairs (Figure 3f).

3.1.4. Şemseddin Sami Male Student Dormitory (D4)

Opened in 2010 with a capacity of 624 students, Şemseddin Sami Male Student Dormitory (D4) is located in the Karahıdır neighborhood, 4.0 km away from the city center (Figure 4a). The complex consists of one 4-story U-shaped accommodation building and a rectangular dining and social building. It is situated near rural land, the Kırklareli University Karahıdır Campus, and the Kırklareli Male Student Dormitory (Figure 4b). The exterior architecture follows a standard institutional style (Figure 4c).



Figure 4. Spatial context of Şemseddin Sami Male Student Dormitory (D4): (a) Distance of the dormitory to the city center (Google Earth); (b) Satellite image of the dormitory complex and its immediate surroundings (Google Earth); (c) Exterior view of the dormitory buildings [68]; (d) Interior view of the dining hall unit [67]; (e) Interior view of a standard room unit [67].

The complex includes 4-person rooms, study halls, a dining hall (Figure 4d), a canteen, laundry and ironing rooms, an infirmary, a conference hall, administrative offices, and security units, as well as circulation spaces and gardens. The interior of the rooms features a wet area with a bathroom and toilet, and a shared sleeping and study area for four students that contains wardrobes, individual desks, chairs, beds, nightstands, and a mini-refrigerator (Figure 4e).

3.1.5. Kırklareli Male Student Dormitory (D5)

Opened in 2002 with a capacity of 580 students, Kırklareli Male Student Dormitory (D5) is located in the Karahıdır neighborhood, 3.3 km away from the city center (Figure 5a). The complex consists of two 4-story T-shaped accommodation buildings and one rectangular dining and social building. It is surrounded by rural land, residential structures, the Kırklareli University Karahıdır Campus, and the Şemseddin Sami Male Student Dormitory (Figure 5b). The exterior architecture reflects the same standard institutional style as the other dormitories (Figure 5c).

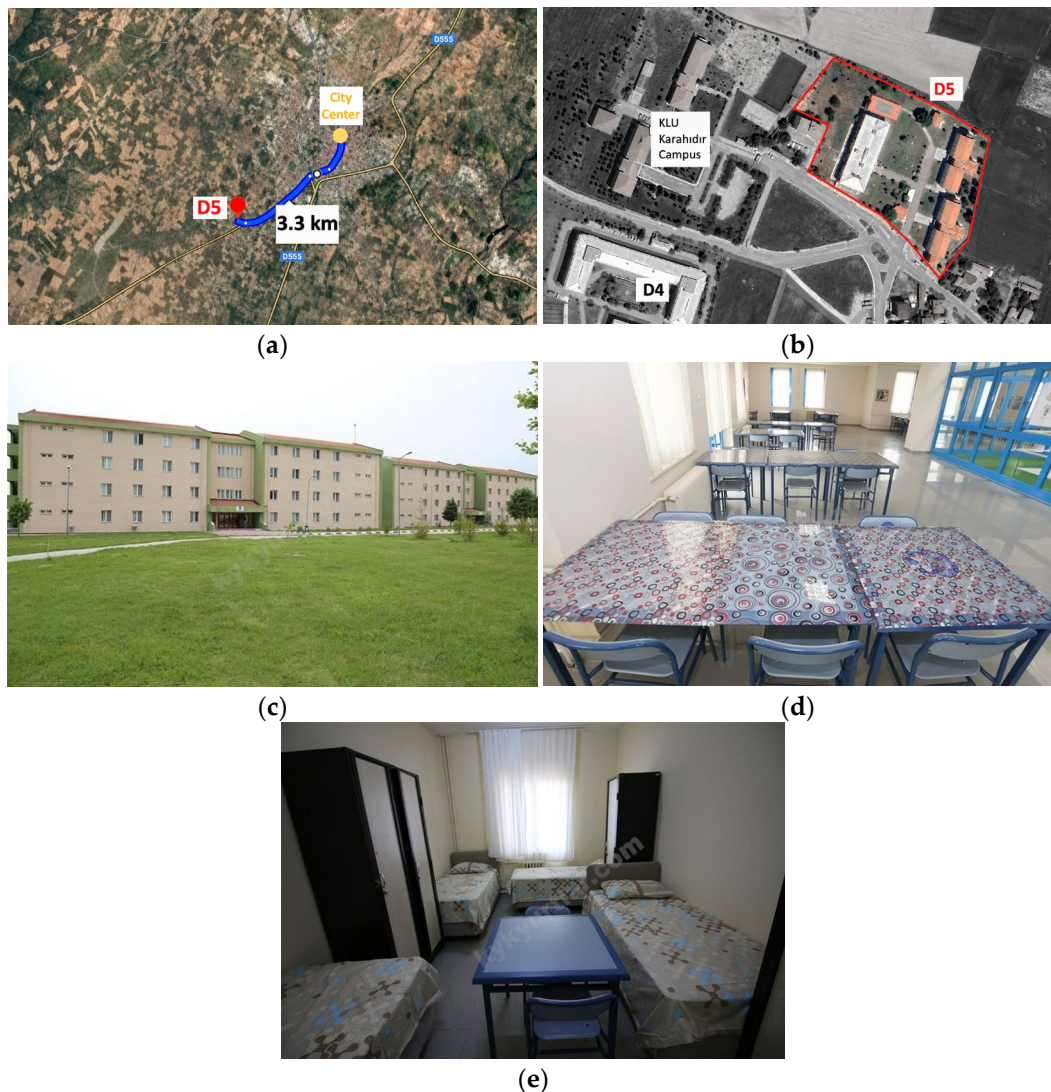


Figure 5. Spatial context of Kırklareli Male Student Dormitory (D5): (a) Distance of the dormitory to the city center (Google Earth); (b) Satellite image of the dormitory complex and its immediate surroundings (Google Earth); (c) Exterior view of the dormitory buildings [67]; (d) Interior view of the dining hall unit [67]; (e) Interior view of a standard room unit [67].

The complex includes 4-person rooms, study halls, a dining hall (Figure 5d), a canteen, laundry and ironing rooms, an infirmary, a conference hall, administrative offices, and security units, alongside circulation spaces and gardens. The interior of the rooms features a 4-person sleeping and study area equipped with wardrobes, shared study desks, chairs, beds, and a mini-refrigerator (Figure 5e). Distinct from the previous dormitories, the wet areas and additional individual study spaces are positioned along the corridor to serve the residents collectively.

3.2. Sampling and Data Collection Process

The data are part of the corresponding author's ongoing doctoral thesis. A previous publication by Tekin and Başdoğan [44] used this dataset to analyze structural relationships through Structural Equation Modeling (SEM). However, the current study focuses on a different research objective: investigating how place attachment levels vary according to students' socio-demographic and spatial characteristics.

Based on population parameters, the minimum representative sample size was initially calculated at 364 participants [69]. However, to increase statistical power, the target sample size was set to 450 participants. A stratified sampling method was employed to proportionally distribute this target across the five dormitories, resulting in predetermined quotas of 146 students from Evlad-ı Fatihan Female Student Dormitory (D1), 129 from Hundi Hatun Female Student Dormitory (D2), 97 from Ahmet Cevdet Pasha Male Student Dormitory (D3), 40 from Şemseddin Sami Male Student Dormitory (D4), and 38 from Kırklareli Male Student Dormitory (D5).

Following institutional permissions and necessary ethical approvals, fieldwork was conducted through face-to-face surveys to fulfill these quotas. Participation was entirely voluntary, and the anonymity of the respondents was guaranteed. During the data collection process, completed questionnaires underwent preliminary checks; forms containing missing or erroneous data were excluded, and fieldwork continued until the exact target of 450 valid responses was reached. Detailed information on the population and data collection process was reported in the study by Tekin and Başdoğan [44].

3.3. Measurement Tool and Scale Validity

The survey used in this research consisted of two sections. The first section, comprising 12 questions in multiple-choice and open-ended formats, was designed to gather information on participants' socio-demographic and spatial characteristics. These items were detailed in the appendix of the earlier study [44], and the descriptive statistics of the participants are provided in the Results section of this paper.

The second section consisted of the "Place Attachment Scale" [33], adapted for the student dormitory context. The scale included 12 items rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree), three of which (PA4, PA8, and PA10) were reverse-scored. For transparency, the complete list of these 12 items, including annotations for the reverse-scored items, is provided in Appendix A. Linguistic clarity and content validity were confirmed through expert review and a pilot study with 10 students. The construct validity of this adapted scale was previously evaluated in the study by Tekin and Başdoğan [44].

The earlier factor analyses (EFA and CFA) on this dataset showed that, following the exclusion of two items (PA1 and PA8) due to insufficient factor loadings as detailed in [44], the remaining 10 items formed a unidimensional structure explaining 43.86% of the total variance [70]. This structure yielded a Cronbach's Alpha of 0.839 [71] and acceptable fit indices ($CMIN/DF = 4.278 \leq 5.0$; $RMSEA = 0.085 \leq 0.10$; $CFI = 0.932 \geq 0.80$; $TLI = 0.905 \geq 0.80$; $IFI = 0.933 \geq 0.80$; $RFI = 0.880 \geq 0.80$; $NFI = 0.914 \geq 0.80$; $SRMR = 0.048 \leq 0.10$) [70,72]. Because the scale's reliability and validity were already reported for this specific sample, the factor analysis procedures were not repeated. As these evaluations were comprehensively addressed in the foundational study by Tekin and Başdoğan [44], the validated 10-item structure was adopted without further modification.

3.4. Data Analysis

Statistical analyses were performed using IBM SPSS Version 25.0. The dataset met the assumption of a normal distribution, as kurtosis and skewness values fell within

the acceptable range of -1.5 to $+1.5$ [73]. Descriptive statistics were used to summarize the participants' information and scale scores. As descriptive analyses revealed that all participants were "single" and all rooms had a standard capacity of "4 persons," these variables were excluded due to a lack of variance. Consequently, statistical difference analyses were performed on the remaining ten variables.

Independent samples *t*-tests were used for comparisons between two independent groups, and One-Way Analysis of Variance (ANOVA) was utilized for comparisons involving three or more groups. The homogeneity of variances was checked using Levene's test. Standard F-statistics and the Bonferroni post hoc test were applied when homogeneity was established; otherwise, the robust Welch F-statistic and Tamhane's T2 test were utilized. Cohen's *d* and Eta-squared (η^2) were calculated to determine effect sizes, with results evaluated according to Cohen's [74] reference ranges. In all analyses, the level of statistical significance was set at $p < 0.05$.

4. Results

This section presents descriptive information about the students participating in the study, descriptive statistics, and data regarding various independent variables (gender, age, field of study, class level, degree level, campus location, family's region of residence, dormitory of residence, duration of residence, and floor level).

4.1. Descriptive Information and Statistics on Participants

An analysis of the descriptive profile of the 450 students (Table 1)—whose general socio-demographic distribution was previously documented as supplementary data [44] but is analyzed here in the context of place attachment differences—reveals that most participants were female students (61.1%) and that all of them (100%) were single. The age distribution ranged from 18 to 23 years and above, with the highest participation observed in the 20-year-old (25.3%) and 21-year-old (24.9%) groups. Although the students' fields of study show a wide distribution, they are predominantly concentrated in the fields of health sciences (32.9%) and social sciences and humanities (28.2%). When examining degree and class levels, it was found that the majority of participants were at bachelor's level (73.8%) and that the largest group by year group was made up of preparatory and 1st-year students (45.3%). In terms of the campuses where the students study, the vast majority (73.8%) are located at the Kayalı Campus. Regarding the regions where the families reside, Istanbul province (35.3%) and the Marmara Region (18.9%) stand out. When the dormitory of residence profiles are considered, the highest participation is observed in D1 (32.4%), and in terms of the duration of residence in the dormitory, the 1–12 months range (44.4%) ranks first. Finally, an examination of the findings regarding the rooms where students stay indicates that all participants (100%) stay in 4-person rooms, and these rooms have a close and balanced distribution between the ground floor and the fourth floor (ranging from 20.6% to 29.8%).

Descriptive statistics for the "Place Attachment (PA) Scale" are presented in Table 2. Participant scores ranged from 10.00 to 50.00, with a mean (*M*) of 27.19 and a standard deviation (*SD*) of 7.36. Skewness (-0.142) and kurtosis (-0.222) values confirmed that the scale scores met the normality assumption, falling within the reference range of -1.5 to $+1.5$ [73].

Table 1. Descriptive information on participants.

Variables	Categories	<i>n</i>	%
Gender	Female	275	61.1
	Male	175	38.9
Marital Status	Single	450	100.0
Age	18	52	11.6
	19	63	14.0
	20	114	25.3
	21	112	24.9
	22	56	12.4
	23 and over	53	11.8
Field of Study	Science, Engineering, and Architecture	62	13.8
	Social Sciences and Humanities	127	28.2
	Health Sciences	148	32.9
	Economics and Administrative Sciences	39	8.7
	Technical Programs	32	7.1
	Transportation and Service Sciences	42	9.3
Class Level	Preparatory and 1st Year	204	45.3
	2nd Year	156	34.7
	3rd and 4th Year	90	20.0
Degree Level	Associate Degree	118	26.2
	Bachelor's Degree	332	73.8
Campus Location	Kayalı	332	73.8
	Kavaklı	83	18.4
	Karahıdır	35	7.8
Family's Region of Residence	Marmara Region	85	18.9
	Istanbul Province	159	35.3
	Thrace Region	73	16.2
	Other	133	29.6
Dormitory of Residence	Evlad-ı Fatihan Female Student Dormitory (D1)	146	32.4
	Hundi Hatun Female Student Dormitory (D2)	129	28.7
	Ahmet Cevdet Pasha Male Student Dormitory (D3)	97	21.6
	Şemseddin Sami Male Student Dormitory (D4)	40	8.9
	Kırklareli Male Student Dormitory (D5)	38	8.4
Duration of Residence	1–12 months	200	44.4
	13–24 months	141	31.3
	25–36 months	62	13.8
	37 months and over	47	10.5
Room Capacity	4	450	100.0
Floor Level	Ground level	112	24.9
	1st floor	93	20.6
	2nd floor	111	24.7
	3rd and 4th floors	134	29.8

Table 2. Descriptive statistics for the PA scale.

Scale	Minimum	Maximum	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
Place Attachment (PA)	10.00	50.00	27.19	7.36	−0.142	−0.222

4.2. Comparison of Place Attachment Levels According to Variables

Independent samples *t*-tests and one-way ANOVA were used to examine differences in place attachment (PA) across the study variables (Table 3).

Table 3. Findings regarding participants' PA levels according to identified variables.

Variables	Categories	Place Attachment (PA)	
		<i>M</i>	<i>SD</i>
Gender	Female	26.39	7.40
	Male	28.45	7.13
	<i>t</i>	−2.909	
	<i>p</i>	0.004 *	
	Cohen's <i>d</i>	0.281	
Age	18	28.50	6.29
	19	27.43	7.41
	20	26.47	7.02
	21	27.65	7.49
	22	26.54	8.90
	23 and over	26.89	6.99
	<i>F</i>	0.751	
	<i>p</i>	0.585	
Field of Study	Science, Engineering, and Architecture (1)	26.16	6.78
	Social Sciences and Humanities (2)	26.06	7.51
	Health Sciences (3)	27.84	7.64
	Economics and Administrative Sciences (4)	26.49	7.58
	Technical Programs (5)	30.78	5.93
	Transportation and Service Sciences (6)	27.74	6.66
	<i>F</i>	2.767	
	<i>p</i>	0.018 *	
	Bonferroni	2 < 5	
Class Level	Preparatory and 1st Year	27.16	6.93
	2nd Year	27.27	7.48
	3rd and 4th Year	27.12	8.15
	<i>F</i>	0.014	
	<i>p</i>	0.986	
Degree Level	Associate Degree	28.93	7.24
	Bachelor's Degree	26.57	7.31
	<i>t</i>	3.019	
	<i>p</i>	0.003 *	
	Cohen's <i>d</i>	0.324	
Campus Location	Kayalı (1)	26.57	7.31
	Kavaklı (2)	28.41	7.69
	Karahıdır (3)	30.17	5.96
	<i>F</i>	5.279	
	<i>p</i>	0.005 *	
	Bonferroni	1 < 3	
	η^2	0.023	
Family's Region of Residence	Marmara Region	27.80	8.18
	Istanbul Province	26.77	7.26
	Thrace Region	27.73	7.28
	Other	27.02	7.00
	<i>F</i>	0.522	
	<i>p</i>	0.667	

Table 3. Cont.

Variables	Categories	Place Attachment (PA)	
		<i>M</i>	<i>SD</i>
Dormitory of Residence	Evlad-ı Fatihan Female Student Dormitory (D1)	27.85	7.90
	Hundi Hatun Female Student Dormitory (D2)	24.74	6.44
	Ahmet Cevdet Pasha Male Student Dormitory (D3)	27.18	6.96
	Şemseddin Sami Male Student Dormitory (D4)	31.98	5.26
	Kırklareli Male Student Dormitory (D5)	27.97	8.15
	<i>F</i>	13.050 ^w	
	<i>p</i>	<i>p</i> < 0.001	
Duration of Residence	Tamhane	D2 < D1; D1, D2, D3 < D4	
	η^2	0.073	
	1–12 months	27.27	7.05
	13–24 months	27.28	7.02
	25–36 months	26.61	8.92
	37 months and over	27.34	7.61
	<i>F</i>	0.106 ^w	
Floor Level	<i>p</i>	0.957	
	Ground floor (1)	28.86	7.98
	1st floor (2)	26.26	7.17
	2nd floor (3)	26.64	6.80
	3rd and 4th floors (4)	26.90	7.25
	<i>F</i>	2.718	
	<i>p</i>	0.044 [*]	
	Bonferroni	2 < 1	
	η^2	0.018	

* *p* < 0.05; *t*: independent samples *t*-test statistic; *F*: one-way ANOVA test statistic; ^w: Welch *F*.

Gender: Place attachment levels differed significantly by gender ($t = -2.909$, $p = 0.004$). Male students reported higher PA scores ($M = 28.45$, $SD = 7.13$) than female students ($M = 26.39$, $SD = 7.40$), with a small effect size (Cohen's $d = 0.281$).

Age: No significant differences were observed across age groups ($F = 0.751$, $p = 0.585$).

Field of Study: PA levels varied significantly by field of study ($F = 2.767$, $p = 0.018$). Bonferroni tests indicated that students in technical programs ($M = 30.78$, $SD = 5.93$) scored significantly higher than those in social sciences and humanities ($M = 26.06$, $SD = 7.51$), with a small effect size ($\eta^2 = 0.030$).

Class Level: No significant differences were observed across class levels ($F = 0.014$, $p = 0.986$).

Degree Level: PA levels differed significantly according to degree level ($t = 3.019$, $p = 0.003$). Associate degree students ($M = 28.93$, $SD = 7.24$) scored higher than bachelor's students ($M = 26.57$, $SD = 7.31$), with a small effect size (Cohen's $d = 0.324$).

Campus Location: PA levels differed significantly by campus location ($F = 5.279$, $p = 0.005$). Bonferroni tests showed that students at the Karahıdır Campus ($M = 30.17$, $SD = 5.96$) scored significantly higher than those at the Kayalı Campus ($M = 26.57$, $SD = 7.31$), with a small effect size ($\eta^2 = 0.023$).

Family's Region of Residence: No significant differences were found regarding the geographical regions where families reside ($F = 0.522$, $p = 0.667$).

Dormitory of Residence: PA levels showed a significant difference based on the dormitory of residence (Welch $F = 13.050$, $p < 0.001$). Tamhane's T_2 tests showed that students in D4 ($M = 31.98$, $SD = 5.26$) scored significantly higher than those in D1 ($M = 27.85$, $SD = 7.90$), D2 ($M = 24.74$, $SD = 6.44$), and D3 ($M = 27.18$, $SD = 6.96$). Additionally, D1 students scored higher than D2 students (medium effect size, $\eta^2 = 0.073$).

Duration of Residence: No significant differences were found based on the duration of residence (Welch $F = 0.106$, $p = 0.957$).

Floor Level: PA levels differed significantly by room floor level ($F = 2.718$, $p = 0.044$). Bonferroni tests indicated that students on the ground floor ($M = 28.86$, $SD = 7.98$) scored higher than those on the 1st floor ($M = 26.26$, $SD = 7.17$), with a small effect size ($\eta^2 = 0.018$).

5. Discussion

This study examined students' place attachment (PA) levels toward their dormitories across ten independent variables. Although the statistically significant differences among socio-demographic and spatial variables generally exhibited small effect sizes (indicated by low Cohen's d and η^2 values), these subtle variations remain practically meaningful. Such small effect sizes are, in fact, typical in environmental psychology when evaluating complex constructs like place attachment, which are shaped by numerous interacting variables [75,76]. In highly standardized mass-housing environments like GSB dormitories, even minor differences yield critical insights into how institutional spatial constraints shape users' attachment processes. From a practical standpoint, identifying these subtle spatial vulnerabilities is essential for architects and policymakers; even modest design improvements based on these findings can cumulatively reduce psychological stress for large student populations [27,77]. Accordingly, these subtle differences may offer empirical insights into how students attempt to navigate privacy, place identity, and social bonding to transform rigid institutional units into meaningful places within their everyday lives [25]. These findings are evaluated below in relation to the relevant literature:

Male students exhibited significantly higher PA levels than their female counterparts. This difference could be related to female students' higher spatial expectations and attention to detail regarding accommodation facilities. Current literature highlights that female students are far more selective and sensitive regarding the quality of the physical environment in dormitories, their perception of safety, and standards of social privacy [38,39]. In this respect, as Abu-Obeid and Ibrahim [24] point out, the ability to control privacy and establish territorial boundaries appears to play a critical role for female residents in feeling a sense of belonging in mass housing. This sensitivity is also consistent with the finding that spatial quality satisfaction is a primary predictor of place attachment in GSB dormitories, as previously indicated in the structural model by Tekin and Başdoğan [44]. Therefore, it is plausible that the inadequacy of uniform architectural solutions in meeting female students' spatial expectations acts as a barrier to the formation of a strong emotional bond with the space.

Age did not yield a statistically significant difference in students' levels of PA. Although age is generally accepted as an important predictor of PA in environmental psychology [13], this is primarily true for broad life stages spanning from childhood to old age. The fact that the university students comprising the research sample were within a relatively homogeneous age range and all shared the common life stage of "young adulthood" might explain the similar patterns in spatial expectations regarding accommodation and levels of PA.

Regarding fields of study, the highest PA scores were concentrated in technical programs, while the lowest scores were found in the social sciences and humanities. This pattern suggests that the theoretical or practical training students receive might play a role in shaping the psychological bond established with the environment and their general spatial perception [11].

No statistically significant relationship emerged between students' class levels and their attachment to their accommodation areas. The fact that the dormitory buildings included in the study are located outside the university campuses likely played a critical

role in this finding. This physical separation from the campuses, which are the centers of academic and social life, may have led to these buildings being perceived as mere “accommodation facilities” rather than an integrated “university living space”. Consequently, even as students progress through their years and their ties to the university strengthen, this integration may not have been reflected in the physically isolated dormitory spaces [19] and may have failed to alleviate students’ sense of alienation from the space [17]. In such circumstances, this physical and social disconnection could hinder the dormitories from evolving into environments where students can cultivate strong social bonds and a broader sense of place identity [28].

The finding that associate degree students exhibit higher levels of PA than bachelor’s degree students might be explained by the relationship between the duration of education and spatial expectations. Because bachelor’s degree students have a longer period of study, they may conceptualize the student dormitory as a long-term “living space” rather than a temporary one, thereby increasing their spatial expectations. This distinction is consistent with the argument by Gbadegesin et al. [61], who suggest that the temporary nature of student housing produces a different attachment dynamic compared to permanent residential properties. As noted in the literature [47], a mismatch between rising expectations and existing conditions can reduce attachment levels. The relatively shorter duration of study for associate degree students, however, may have made it easier for them to accept existing conditions and develop PA. This dynamic seems to point to different coping strategies in everyday life. Short-term residents might adapt more readily, whereas long-term residents could experience a heightened tension between institutional constraints and their fundamental need for personalization [26,41].

Campus location was significantly associated with PA levels. Students studying at the Karahıdır Campus, which is closest to the city center, exhibited significantly higher PA levels than those at the Kayalı Campus, the furthest from the center. The physical distance of the Kayalı Campus from urban amenities necessitates a demanding daily commute for students to participate in the city’s social and cultural life. The environmental stress [78] and fatigue associated with this constant mobility may play a contributing role in diminishing students’ overall well-being. Consequently, this sense of urban isolation and commuter stress could be a factor in weakening their emotional bond with their primary living environments, the dormitories.

Family region of residence did not yield a statistically significant difference in students’ PA levels. This finding implies that the regions of origin from which students come to Kırklareli, or their diverse geographical backgrounds, might not play a decisive role in their current processes of adopting a residential space. As stated in the environmental psychology literature, attachment to a new living space depends on current and quality interactions with the present physical environment rather than an individual’s past geographical codes [13]. Consequently, it can be argued that students coming from different regions exhibit similar expectations and patterns of developing attachment toward their current dormitory spaces.

Students residing in D4 exhibited significantly higher PA levels than those in the other three dormitories (D1, D2, and D3). From an environmental psychology perspective, PA develops through the security, control, and socialization opportunities that a space offers its users [13,47]. The relative distance of D1, D2, and D3 from urban amenities, combined with their high student population, presents a context that is often associated with a decline in social solidarity, potentially causing the dormitory spaces to be perceived as “temporary accommodation facilities” rather than “homes” [63]. A smaller-scale dormitory such as D4, however, may be more successful in providing students with the conditions that support the emergence and development of PA. In such smaller and more integrated

settings, social relationships may develop more organically, potentially enabling students to transform standardized residential environments into meaningful places that foster social bonding and a genuine sense of community [27]. Interestingly, although D5 is similarly a smaller-scale dormitory, its PA scores did not exhibit a statistically significant difference compared to the larger complexes. This discrepancy may partly reflect two spatial and structural characteristics of D5. First, as the oldest facility in the study area (opened in 2002), the natural physical deterioration and aging infrastructure may negatively influence students' perceptions of spatial quality and, consequently, their attachment to the residential environment. Second, unlike the other dormitories, D5's wet areas and additional study spaces are positioned along communal corridors rather than within the private room units. From an environmental psychology perspective, this centralized layout may reduce opportunities for privacy regulation, territorial control, and spatial restructuring [79]. When key residential functions are displaced from the private room and relocated to communal areas, students may have fewer opportunities to establish clear personal territories and adapt their immediate environment according to their needs. Such limitations may hinder the transformation of a standardized institutional setting into a personally meaningful place. Consequently, the combination of reduced spatial control over privacy boundaries and the building's aging physical environment may have limited students' ability to develop stronger territorial attachment [25].

Duration of residence did not yield a significant difference in PA levels. Contrary to classical theories [2,9] and more recent studies [13,15,16] that emphasize that the human-space bond is a slow process built over long periods, our findings suggest that merely spending time in dormitory spaces is not sufficient to enhance PA. The lack of increase in PA over time suggests that students gradually become accustomed to the existing conditions in the dormitory and enter a process of environmental habituation. In this state, rather than developing deeper emotional bonds, residents likely recalibrate their spatial expectations to align with the unchangeable physical conditions of the institutional environment, effectively normalizing their surroundings to sustain long-term residency. This suggests that for prolonged residency to translate into a deep sense of belonging, it may be beneficial to support students with opportunities for spatial personalization and place-identity expression [17,43].

Students staying on the ground floor exhibited a significantly higher level of PA compared to those on the first floor. This finding may be associated with the ease of access offered by ground floors (e.g., no need to use stairs and quicker access to communal areas) as well as their more direct connection with the outdoor environment. One possible interpretation can be drawn from prospect-refuge theory [80], which suggests that environments offering a balance between visual access and a sense of enclosure may be perceived more positively by users. In the context of student dormitories, ground-floor rooms may provide greater visual accessibility to outdoor spaces and everyday social activities while simultaneously maintaining a degree of privacy and territorial security. Such spatial characteristics may help reduce the sense of isolation sometimes associated with upper-floor corridors and may create additional opportunities for spontaneous social encounters. These encounters are often regarded as an important component of everyday social life and may contribute to the development of social bonding and shared place meanings among residents [54]. Furthermore, immediate access to circulation routes and exits may contribute to perceptions of convenience and security, both of which have been associated with positive residential experiences in environmental psychology research [47]. Consistent with previous studies indicating that functional accessibility and proximity to communal areas are associated with increased social interaction and stronger place

attachment [22,47], the higher PA levels observed among ground-floor residents may reflect the influence of these socio-spatial characteristics.

6. Conclusions

This study analyzed whether place attachment (PA) levels among higher education students residing in Kırklareli GSB dormitories varied across ten independent variables. Results revealed statistically significant differences across six variables: gender, field of study, degree level, campus location, dormitory, and floor level. Conversely, age, class level, family's region of residence, and duration of residence showed no significant effects.

The finding that associate degree students develop higher attachment to dormitories compared to bachelor's degree students, coupled with the observation that duration of residence does not increase PA, suggests a process of environmental habituation toward dormitories in long-term usage. At the urban scale, the commuter stress generated by traveling between the city center and distant campuses, combined with the relative distance of dormitory complexes from urban amenities, might weaken PA. Conversely, the greater opportunities for nature contact and accessibility associated with ground-floor locations appear to strengthen this bond. Consequently, these findings offer several design implications for student mass housing, suggesting that traditional "bed-and-desk" uniform typologies may benefit from reconsideration through a multi-scalar approach informed by these empirical results. At the macro scale, the alienating effects of massive institutional housing may be mitigated through a "micro-urban" design strategy. Breaking down monotonous dormitory blocks into smaller, identifiable spatial clusters integrated with social amenities could help address some of the challenges associated with distant campus locations and large dormitory populations. At the building scale, to counteract the social isolation often experienced on upper floors, vertical circulation cores could be expanded into distributed social hubs or communal terraces, potentially extending opportunities for spontaneous social interaction beyond the ground floor. Finally, at the interior scale, considering female students' heightened spatial sensitivities and the observed negative role of communal corridor bathrooms on territorial attachment, architectural designs might benefit from incorporating in-room private facilities (en-suite wet areas), flexible zoning gradients, and improved acoustic insulation. By offering modular and customizable interior elements, architects may provide students with greater opportunities to actively shape their immediate living environments. Framing these design implications within the environment-behavior perspective highlights how spatial configurations may contribute to psychological outcomes by shaping opportunities for privacy regulation, territorial control, social interaction, and personalization [47,80]. In this respect, greater control over personal space may support the development of place identity, social bonding, and a stronger sense of belonging within standardized residential settings. Consequently, providing opportunities for personalization may help students reflect their identities and strengthen their attachment to place [26,28]. Ultimately, enabling students to exercise greater spatial agency appears to be an important factor in moving beyond passive environmental habituation toward a more meaningful emotional connection with their living environment. Dormitory complexes may therefore be conceptualized as human-scale, permeable, and nature-integrated environments that are better connected to both urban amenities and the campus.

Building upon the structural foundations presented by Tekin and Başdoğan [44], this study makes a significant contribution to the literature by providing a comprehensive socio-demographic and spatial profiling of student-environment interactions. In a practical context, the research provides a strategic data source for the GSB—which operates 868 student dormitories with a capacity of approximately one million students nationwide as of

2025 [40]—to reshape its national accommodation policies and architectural design guidelines around the axis of PA and student well-being. In doing so, institutional policies could shift their focus from merely providing functional shelter toward fostering environments where students can establish territorial boundaries, build social capital, and experience a meaningful spatial identity [41,42].

In addition to its theoretical and practical contributions, this study has certain limitations. First, the psycho-cultural context of spatial perception warrants consideration. How individuals experience privacy, social density, and shared environments is shaped by their cultural backgrounds, meaning that the attachment patterns observed here may partly reflect local norms regarding communal living. While the specific behavioral responses cannot be generalized to all cultural settings, the core findings may still be transferable to broader contexts—particularly to other centrally managed, high-density mass-housing environments where users navigate similar institutional constraints. Furthermore, because the research is confined to a localized sample group, the findings remain geographically specific. However, this institutional setting also provides a methodological advantage: since students are centrally assigned to GSB dormitories by the Ministry with limited control over their placements, the risk of self-selection bias is inherently minimized. On the other hand, as all participants were single and the dormitory rooms had a standard capacity of four people, the potential effects of marital status and room density could not be statistically evaluated. Future studies would benefit from conducting cross-validation tests across different geographical regions and alternative accommodation settings. Additionally, while this study analyzed place attachment as a unidimensional construct based on empirical validation, future research examining this concept through multidimensional frameworks—particularly by focusing on the distinct roles of place identity and social bonding—would offer a more nuanced perspective. As a statistical limitation, although post hoc tests (Bonferroni and Tamhane's T2) were utilized to control error rates within specific group comparisons, the potential issue of multiple comparisons arising from the separate evaluation of ten independent variables should be acknowledged. Furthermore, while the socio-spatial explanations discussed in this study are theoretically grounded in the environmental psychology literature, the quantitative nature of this research limits the ability to draw definitive causal conclusions about user behavior. Future quantitative research utilizing Structural Equation Modeling (SEM) or path analysis could provide a more rigorous assessment of the relationships among physical spatial features, socio-demographic characteristics, and the psychological dimensions of place attachment, while also helping to evaluate the plausibility of directional pathways suggested by environmental psychology theories. Beyond these methodological refinements, incorporating other variables such as grade point average (GPA), examining interaction effects between socio-spatial variables (e.g., gender and floor level), and utilizing both qualitative and cross-cultural research methods alongside quantitative data may facilitate a more comprehensive understanding of user perceptions.

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Abbreviations

The following abbreviations are used in this manuscript:

PA	Place attachment
GSB	Ministry of Youth and Sports
ANOVA	Analysis of variance
SEM	Structural equation modeling
D1	Evlad-ı Fatihan Female Student Dormitory
D2	Hundi Hatun Female Student Dormitory
D3	Ahmet Cevdet Pasha Male Student Dormitory
D4	Şemseddin Sami Male Student Dormitory
D5	Kırklareli Male Student Dormitory
EFA	Exploratory factor analysis
CFA	Confirmatory factor analysis
CMIN/DF	Chi-square to degrees of freedom ratio
RMSEA	Root mean square error of approximation
CFI	Comparative fit index
TLI	Tucker–Lewis index
IFI	Incremental fit index
RFI	Relative fit index
NFI	Normed fit index
SRMR	Standardized root mean square residual
SPSS	Statistical Package for the Social Sciences
M	Mean score
SD	Standard deviation
GPA	Grade point average

Appendix A

Table A1. Student Dormitories Place Attachment Scale.

Place Attachment (PA)		1	2	3	4	5
PA1	I know this dormitory very well.	()	()	()	()	()
PA2	I defend it when somebody criticizes it.	()	()	()	()	()
PA3	I miss it when I am not here.	()	()	()	()	()
PA4 *	I don't like this dormitory.	()	()	()	()	()
PA5	I feel secure in this dormitory.	()	()	()	()	()
PA6	I am proud of this dormitory.	()	()	()	()	()

Table A1. Cont.

Place Attachment (PA)		1	2	3	4	5
PA7	It is a part of myself.	()	()	()	()	()
PA8 *	I have no influence on its affairs.	()	()	()	()	()
PA9	I want to be involved in what is going on here.	()	()	()	()	()
PA10 *	I leave this dormitory with pleasure.	()	()	()	()	()
PA11	I would not like to move out of here.	()	()	()	()	()
PA12	I am rooted here.	()	()	()	()	()

* Reverse-coded item; 1: Strongly disagree; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Strongly agree.

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